

2.3.2 Teacher use ICT enabled tools for effective teaching learning process.

In ever changing and, technology driven world it is essential for the students to learn and master the latest technologies in order to be industry ready. Adopting modern teaching methods is crucial for ensuring that students receive a high-quality education that prepares them for the future. ICT is the most effective mode of communication used in teaching-learning process to improve the students learning ability, attention, interest, creativity and think critically. As a result, teachers are combining technology with traditional mode of instruction to engage students in long term learning.

At JJMCOE for years we have been using ICT tools for delivering lectures and practical's. The institute has excellent infrastructure with respect to ICT tools, like projectors, Desktop, Printers, Scanners, Seminar-hall, Smart boards, MOOCK etc. Faculty make use of electronic resources from platforms such as DELNET, NPTEL, SWAYAM, COURSERA, and the Digital Library.

Faculties use PPT's in their teaching by using LCD's and projectors. They are also equipped by digital library, online search engines and websites to prepare effective presentations. Online expert lectures by Industrial persons are conducted on various platform like Google meet, ZOOM, etc. Subject resources like notes, PPT's and assignments are provided on Google Classroom.





Learning Method and ICT tools used

Sr No	Learning method	ICT tool
1	Class Room Learning	✓ PPT / Study material
2	Blended Learning	SSK ✓ • NPTEL video • YouTube and other academy videos - PPB ✓ • Virtual Aided Courses - PPB ✓ • Global meet Microsoft teams for online lecture → SSK ✓ • E journal & E books → SSK ✓ • Open source Library
3	Experiential & Field learning	• Study of software in syllabus → PPB ✓ • Virtual Labs → PPB ✓ • Industrial visits → THM ✓ • Internship Training → THM ✓ • Tutorship → THM ✓ • Augmented and Programs → MDP ✓ • Projects → SRM ✓ • Mini Project → ADS ✓ • Seminars → SEM ✓ • CIP/DP attended } → MDP → tabe shared • STP/DP Organized } → MDP → by UAR • Expert Guest Conducted → SRM • Participation in Tech event → PTK ✓ • Tutorial • Assignments • Quizes • ERP Software } → SSK ✓
4	Performance Learning	
5	Problem Solving Methodology by ICT	

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Dr. J. J. Magdum College of Engineering, Jaysingpur
 (NAAC "A" Grade & ISO 21001:2018 certified Institute)

Department of Electronics and Telecommunication Engineering

Academic Year: 2022-23 Semester - II

VALUE ADDED COURSE: JAVA Programming

Dates: 26, 27, 28 and 29 May 2023 Time: 9.30am to 5.30pm

Sr.No	Name of Student	Sign Day1	Sign Day2	Sign Day 3	Sign Day 4
1	Babar Prasad Papat	PPB	PPB	PPB	PPB
2	Sonawale Bhagyashree	Sonawale	Sonawale	Sonawale	Sonawale
3	Patil Pratik Dushyant	Patil	Patil	Patil	Patil
4	Sutar Nikita	Sutar	Sutar	Sutar	Sutar
5	Shetti Namrata Sunil	Shetti	Shetti	Shetti	Shetti
6	Koshti Snehal Prabhakar	Koshti	Koshti	Koshti	Koshti
7	Khot Pradnya Arun	Khot	Khot	Khot	Khot
8	Latif Saniya Shakil	Latif	Latif	Latif	Latif
9	Nadaf Saniya Haroon	Nadaf	Nadaf	Nadaf	Nadaf
10	Shinge Ranjeet Balaso	Shinge	Shinge	Shinge	Shinge
11	Kamble Vinesh Vijay	Vineth	Vineth	Vineth	Vineth
12	Chikalakki Dhanappa S.	Chikalakki	Chikalakki	Chikalakki	Chikalakki
13	Patil Komal Bhanudas	Patil	Patil	Patil	Patil
14	Kate Sneha Sanjay	Kate	Kate	Kate	Kate
15	Vaidya Omkar Vaibhav	Vaidya	Vaidya	Vaidya	Vaidya
16	Gurav Tejas Gurudatta	Gurav	Gurav	Gurav	Gurav
17	Reena Babanrao Made	R.made	R.made	R.made	R.made
18	Gaikwad Shweta S.	Shweta	Shweta	Shweta	Shweta
19	Patil Gayatri Bharat	Patil	Patil	Patil	Patil
20	Chavan Mohini Somnath	Chavan	Chavan	Chavan	Chavan
21	Sanket Suresh Bhoi	Sanket	Sanket	Sanket	Sanket
22	Patil Rohit Chandrakant	Patil	Patil	Patil	Patil
23	Patil Chetan Sanjay	Patil	Patil	Patil	Patil
24	Aniket Patil Thorat	Patil	Patil	Patil	Patil
25	Kacchi Akil Hanif	A.Kacchi	A.Kacchi	A.Kacchi	A.Kacchi
26	Mujawar Tanjeel M.	Mujawar	Mujawar	Mujawar	Mujawar
27	Jatnar Jayesh Sunil	Jatnar	Jatnar	Jatnar	Jatnar
28	Sudhir Sale	Sudhir	Sudhir	Sudhir	Sudhir
29	Kore Chaitanya Arvind	Kore	Kore	Kore	Kore
30	ABHISHEK PAWAR (ETRX)	APawar	APawar	APawar	APawar
31	KAJAL PATIL(ETRX)	KPatil	KPatil	KPatil	KPatil

No. of students:- 30





Value Added Course (30 Hours)

JAVA Programming Schedule

Course Contents drafted and to be delivered by -

Prof. Tahseen A. Mulla (M.Tech - CSE)

Assistant Professor

Department of Information Technology

Module 1 - Fundamentals of Java Programming

Hrs.

Object Oriented Programming Approach, Java programming environment, JVM, JDK, JRE, Bytecode, Structure of a Java program, A simple Java program, Naming conventions

4

Module 2 - Objects and Classes

Objects and Classes, Declaring objects and classes, Declaring member variables, Defining methods, Using objects, 'this' keyword, 'final' keyword, 'static' keyword, Constructors and Garbage collection

5

Module 3 - Inheritance, Interface and Package

What is Inheritance, Types of Inheritance, 'super' keyword, 'final' variables, Classes and Methods. What are Interfaces, Interface relationship, What are packages, Need for package, importing a package, creating a package, user defined packages, system defined packages

5



Module 4 - Exception Handling and Input/Output

What is Exception, Dealing with Errors, Hierarchy of Exception, Types of Exception, IO stream classes, reading a file, writing into a file, file attributes using IO related packages

5

Module 5 - Event Handling, AWT and Swing

What is Exception Handling, Basics of Event Handling, Types of Events, Introduction to Applets, AWT hierarchy, AWT components, Swing components, Swing advanced components

6

Module 6 - Multithreading and JDBC

What is multithreading, Processes and Threads in Java, Runnable interface, Thread class, Thread objects, Thread states, Thread priorities

Database in Java, Design/Architecture of JDBC, The structured query language, JDBC types, Driver manager - Connection, Statement and ResultSet

5

The above contents are with hands-on practice as per the concepts/modules stated above





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Dr. J. J. Magdum College of Engineering, Jaysingpur
(NAAC "A" Grade & ISO 21001:2018 certified Institute)
Department of Electronics and Telecommunication Engineering

Ref no - JTM(AE/ETC) 2022 20/542

29/05/2023

To,
Prof. Tahseen A. Mulla
ADCET,
Ashta

Subject: Thanking

Dear Sir,

With reference to above subject, we are thankful to you for accepting our invitation and conducting 30 hours of value added course "Java Programming" for Final Year Students as a resource person. The students were benefitted by your guidance.

Hope same cooperation in future.

Thanking you

Mrs. P. P. Befagall
Dept IQAC Coordinator

Mr. M. M. Kolao
HOD (ETC)



Received

29/05/2023



Dr. J. J. Magdum Trust's
Dr. J. J. Magdum College of Engineering, Jaysingpur
(NAAC "A" Grade & ISO 21001:2018 certified Institute)
Department of Electronics and Telecommunication Engineering

Ref. no:- JJM(OE)/ETC/2022-23/54

25/05/2023


To,
Prof. Tahseen A. Mulla
ADCET,
Ashta

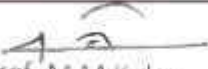
Subject: Regarding Resource person for Value added Course

Dear Sir / Madam

With reference to above subject, we invite you as resource person for the value added course "Java Programming" for Final Year Students. The course duration will be for 30 hours. The course must be conducted on weekends or holidays. Kindly accept the invitation and acknowledge the same.

Thanking you


Prof. Mrs. P.P. Belagall
Dept IQAC Coordinator


Prof. M.M. Kolap
HOD (ETC)



Received
25/05/2023



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Certificate

This is to certify that Kajal Patil of

Class. 9. Tech. Department of Electronics

successfully completed "Value Added Course"

entitled "JAVA Programming" during the Academic

Year 2023-24



Prof. Mrs. Belegali P. P.

Prof. Mrs. Belegali P. P.
IQAC Coordinator

Dr. S. B. Patil

Dr. S. B. Patil
I/C Principal

Dr. S. S. Admutha

Dr. S. S. Admutha
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This is to certify that **Abhishek Pawar** of

Class. **B.Tech.**, Department of **Electronics**

successfully completed " **Value Added Course** " during the Academic
entitled **JAVA Programming**

Year: **2014-15**.

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Certificate



is to certify that Kore. chaitanya Arvind of


Class. 1st Department of Electronics & Tele-communication

successfully completed " **Value Added Course** "

entitled JAVA Programming during the Academic

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..... ass. G. Tech. Department of Electronics & Tele. Communication

..... successfully completed "**Value Added Course**"

entitled "JAVA Programming" during the Academic

Year : 2012-13.

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is to certify that Shri. Athar Jayesh of

Department of Electronics & Tele-Communication

successfully completed "Value Added Course"

entitled "JAVA Programming" during the Academic

Year 2017-18.


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This is to certify that Sale..... Sudhir Darayappa of

Class B Tech Department of Electronics & Telecommunications.....

successfully completed "Value Added Course"
entitled JAVA Programming..... during the Academic

Year : 2022-23.



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This is to certify that Rati! Aniket Satish of

Class. & Section. Department of. Electronics & Tele-communications

successfully completed " Value Added Course " during the Academic
entitled " JAVA Programming "

Year: 2013-13



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entitled "JAYA Programming" during the Academic

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Class. B.Tech. Department of Electronics & Telecommunication

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This is to certify that Chawan Mohini Somnath of
Class 2014/1, Department of Electronics & Tele-Communication,
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entitled JAVA Programming during the Academic

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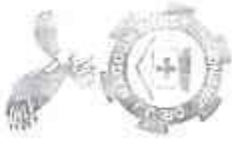
Dr. S. B. Patil

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Class of Department of Electronics & Tele-communication.....

successfully completed " Value Added Course "

entitled " JAVA Programming " during the Academic

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This is to certify that Gurav Tejas Gurudatta of

Class: First Department of Electronics & Tele-communication

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This is to certify that *Vaidya Omkar Vaibhav* of
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This is to certify that Kate Sneha Sanjay of
 Class & Tech: Department of Electronics & Tele-Communication
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 entitled " JAYA Programming " during the Academic

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Classmate of Department of Electronics & Tele-communication.....
successfully completed " **Value Added Course** "

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I/CAC Coordinator

S. B. Patil

Dr. S. B. Patil
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successfully completed "Value Added Course"

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Spahil

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Devi

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This is to certify that Sukat Nikita Bharat of

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I/C Principal


Dr. S. S. Admitha
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This is to certify that Shetti Namrata Sunil of
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I/C Principal

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Class B.Tech. Department of Electronics & Tele-Communication
successfully completed "**Value Added Course**"
entitled "J.A.V.A. Programming" during the Academic



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Prof. Mrs. Belegali P. P
IQAC Coordinator

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Campus Director

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entitled " JAVA Programming " during the Academic



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Class of Tech. Department of Electronics & Telecommunication....
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IQAC Coordinator

Patil
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Admuthé
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Campus Director



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This is to certify that Babar Prasad Popat Of
Class. E. Tech., Department of .. Electronics .. and .. Tele-communication ..
successfully completed " Value Added Course "
entitled JAVA A Programming during the Academic

Year 2022-23




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DAC Coordinator


Dr. S. B. Patil
I/C Principal


Dr. S. S. Admutha
Campus Director

FEEDBACK FORM Java programming VAC 22-23

Department of Electronics and Telecommunication Engineering
Dr. J. J. Magdum College of Engineering, Jaysingpur
26th to 29th May 2023

---* Indicates required question

1. First Name *

.....

2. (Middle Name) *

.....

3. (last Name) *

.....

4. Email ID *

.....



5. Mobile Number *

.....

6. How was the overall content of the Value added course- Java Programming *

Mark only one oval.

- 4 - Excellent
- 3 - Good
- 2 - Fair
- 1 - Poor

7. Whether the trainer had very strong expertise in the area *

Mark only one oval.

- 4 - Excellent
- 3 - Good
- 2 - Fair
- 1 - Poor

8. The pedagogy used in the workshop was very appropriate *

Mark only one oval.

- 4 - Excellent
- 3 - Good
- 2 - Fair
- 1 - Poor

9. Overall workshop was *

Mark only one oval.

- 4 - Excellent
- 3 - Good
- 2 - Fair
- 1 - Poor



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Timestamp	First Name	(Middle Name)	(Last Name)	Email ID	Mobile Number	How was the overall content of the Value added course- Java Programming	Whether the trainer had very strong expertise in the area	The pedagogy used in the workshop was very appropriate	Overall workshop was
5/5/2023 0:19:30	Rama	Babamrac	Made	maderena@	8600862483	3 - Good	3 - Good	3 - Good	3 - Good
5/5/2023 0:21:53	Sanket	Suresh	Bhal	bhoisanke@	7620409008	4 - Excellent	4 - Excellent	4 - Excellent	4 - Excellent
5/5/2023 0:21:24	Pragyashis	Sambhuji	Sonawale	sonawalebh	9175009662	4 - Excellent	4 - Excellent	4 - Excellent	4 - Excellent
5/5/2023 0:21:11	Aniket	Pratik	Thorat	aniket.patil@	8624822490	3 - Good	3 - Good	3 - Good	3 - Good
5/5/2023 0:22:17	Priasad	Popat	Baber	prasadbaba@	7448233398	4 - Excellent	4 - Excellent	4 - Excellent	4 - Excellent
5/5/2023 0:23:35	Jayesh	Sunil	Jathar	jatharjayesh	7385806978	3 - Good	3 - Good	3 - Good	3 - Good
5/5/2023 0:27:13	Gayatri	Bharat	Patil	patilgayatri@	8975515151	3 - Good	3 - Good	3 - Good	3 - Good
5/5/2023 0:28:25	Tarass	Gurudatta	Gurav	tejasgurav@	9145412112	3 - Good	3 - Good	3 - Good	3 - Good
5/5/2023 0:29:44	Rannappa	Somaning	Chikalakki	chikkalakids	6665124875	4 - Excellent	4 - Excellent	4 - Excellent	4 - Excellent
5/5/2023 1:25:55	Sarvyn	Shakil	Lalit	sahyalatif@	+918767085983	3 - Good	3 - Good	3 - Good	3 - Good
5/5/2023 1:57:55	Girkar	Vaibhav	Vaidya	omkarvaidy@	8669465769	3 - Good	3 - Good	3 - Good	3 - Good
5/5/2023 2:29:17	S. Jwala	Suryakan	Gaikwad	shwetagaikv	+917249622172	3 - Good	3 - Good	3 - Good	4 - Excellent
5/5/2023 2:51:42	Prudhva	Arun	Klot	pradnyakh@	7972698485	4 - Excellent	3 - Good	4 - Excellent	4 - Excellent
5/5/2023 4:31:12	Tanveel	Maharrat	Mujawar	mujawartanj	9172283056	4 - Excellent	4 - Excellent	4 - Excellent	4 - Excellent
5/5/2023 6:48:16	SHIDHIR	DARYA	PALE	iamsudhirs@	6890230068	4 - Excellent	4 - Excellent	4 - Excellent	4 - Excellent
5/5/2023 23:35:49	AKIL	HANIF	KACCHI	akakacchi@	769373615061	3 - Good	4 - Excellent	3 - Good	3 - Good
5/5/2023 18:00:45	Pratik	Dushyant	Patil	pratikdpati@	9860093901	3 - Good	3 - Good	3 - Good	3 - Good



Subject: Simulation modeling.
class : TY ETC.

12/15/2023

Python Lists

Prof. S. S. Karadge,

Python Collections (Arrays)

- **List** is a collection which is **ordered** and **changeable**. Allows duplicate members.
- **Tuple** is a collection which is **ordered** and **unchangeable**. Allows duplicate members.
- **Set** is a collection which is **unordered**, **unchangeable**, and **un-indexed**. No duplicate members.
- **Dictionary** is a collection which is **ordered** and **changeable**. No duplicate members.

List

- Lists are used to store multiple items in a single variable.
- Lists are one of 4 built-in data types in Python used to store collections of data, the other 3 are **Tuple**, **Set**, and **Dictionary**, all with different qualities and usage.

- Lists are created using square brackets:

- **Example**

- Create a List:

```
thislist = ["apple", "banana", "cherry"]  
print(thislist)
```

```
['apple', 'banana', 'cherry']
```

List Items

- List items are ordered, changeable, and allow duplicate values.
- List items are indexed, the first item has index [0], the second item has index [1] etc.

- **Ordered**

- When we say that lists are ordered, it means that the items have a defined order, and that order will not change.
- If you add new items to a list, the new items will be placed at the end of the list.
- **Note:** There are some **list methods** that will change the order, but in general: the order of the items will not change.



- **Changeable**
- The list is changeable, meaning that we can change, add, and remove items in a list after it has been created.
- **Allow Duplicates**
- Since lists are indexed, lists can have items with the same value:

- **Example**
- Lists allow duplicate values:
- ```
thislist = ["apple", "banana", "cherry", "apple", "cherry"]
print(thislist)
```
- ```
['apple', 'banana', 'cherry', 'apple', 'cherry']
```

- **List Length**
- To determine how many items a list has, use the len() function:
- **Example**
- Print the number of items in the list:
- ```
thislist = ["apple", "banana", "cherry"]
print(len(thislist))
```
- 3

- **List Items - Data Types**
- List items can be of any data type:
- **Example**
- String, int and boolean data types:
- ```
list1 = ["apple", "banana", "cherry"]
list2 = [1, 5, 7, 9, 3]
list3 = [True, False, False]
```

output

- ```
['apple', 'banana', 'cherry']
```
- ```
[1, 5, 7, 9, 3]
```
- ```
[True, False, False]
```

- **Example**
- A list with strings, integers and boolean values:
- ```
list1 = ["abc", 34, True, 40, "male"]
```
- ```
['abc', 34, True, 40, 'male']
```



- **type()**
- From Python's perspective, lists are defined as objects with the data type 'list':
- `<class 'list'>`
- **Example**
- What is the data type of a list?
- ```
mylist = ["apple", "banana", "cherry"]  
print(type(mylist))
```

- **The list() Constructor**
- It is also possible to use the list() constructor when creating a new list.
- **Example**
- Using the list() constructor to make a List:
- ```
thislist = list(("apple", "banana", "cherry")) #
note the double round-brackets
print(thislist)
```





# Analog Communication



Share with your class...



**New assignment: Assignment number 1**

9 Feb 2022 (Edited 18 Sept)



1 class comment



**New material: Block diagram of communication sytem**

14 Sept



Add class comment



**Dr.Mrs.Teashri Mohite-Patil**

12 Dec 2022



**Block diagram of Communication System video**

1 attachment

Add class comment



**Dr.Mrs.Teashri Mohite-Patil**



Stream



Classwork



People



# # TCP/IP Protocol Suite Overview

Write a Note on

## 1) ARP (Address Resolution Protocol)

- An internet consists of various type of networks & the connecting devices like routers.
- A packet starts from source host, passes through many physical networks and finally reaches the dest<sup>n</sup> host.
- At the host network level, the hosts & routers are recognized by the IP addresses.

### IP Addresses:

- An IP address is an internetwork address.
- It is universally unique address.
- Every protocol involved in internetworking requires IP address.

### MAC Address:

• The packets from source to destination hosts pass through physical networks. At physical level the IP address is not useful but the hosts and routers are recognized by their MAC address.

• A MAC address is local address. It is unique locally but it is not unique universally.

• The IP and MAC address are two diff identifiers & both of them are needed, because a physical n/w can have two diff protocols at the n/w layer at same time.

• Similarly a packet may pass through many diff phy n/w's.

• So to deliver a packet to host or a router, we require two levels of addressing namely IP addressing & MAC address.

• Most importantly we should be able to map the IP address into a corresponding MAC address.

Mapping of IP address into MAC address:

It is of two types:

1) Static Mapping

2) Dynamic Mapping



## 1) Static Mapping:

- In SM a table is created & stored in each machine. table associate an IP add with a MAC address.
- If a machine knows IP add of another machine then can search for corresponding MAC add in its table.
- The limitation of static mapping is that the MAC address can change. To implement static mapping, the static mapping table should be updated periodically.

## 2) Dynamic Mapping:

- In dynamic mapping technique a protocol is used for finding the other address when one type of add is known.
- There are two protocols designed to perform dynamic mapping. They are ① Address Resolution Protocol (ARP) ② Reverse ARP (RARP).
- The ARP maps an IP address to a MAC address whereas the RARP maps a MAC address to an IP address.

## ARP Operation:

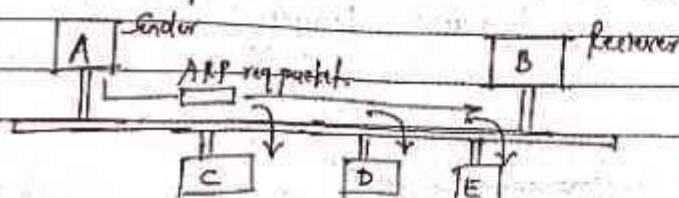
- ARP is used for associating an IP address to its MAC address. For a LAN, each device has its own phy or station address as its identification. This add is imprinted on NIC (Network Interface Card).

## How to find MAC address?

When a router or a host needs to find the MAC address of another host or n/w the seq of events taking is as follows:-

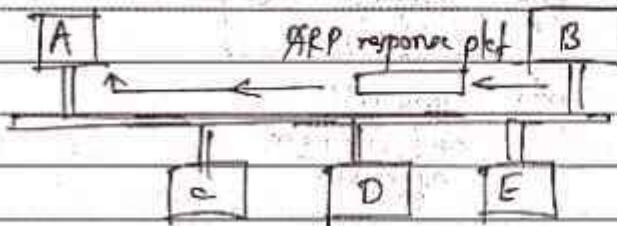
1. The router or host A, who wants to find the MAC address of some other router, sends an ARP request packet. This packet consists of IP & MAC address of sender A & the IP add of receiver (B).

2. This request packet is broadcasted over n/w as shown below:-



choice: Every host and router on n/w receives and process the ARP request packet. But only intended receiver (B) recognizes its IP address in request packet and sends back an ARP response pkt.

4. The ARP response packet contains IP and physical address of Rx (B). This packet is delivered only to A (Unicast) using A's physical add in ARP request packet.



# ARP Packet Format: -

| Hardware type (16 bits) | Protocol type (16 bits) |
|-------------------------|-------------------------|
| Hardware length         | Protocol length         |
| Operation req, Reply    |                         |
| Sender hardware address |                         |
| Sender protocol address |                         |
| Target hardware address |                         |
| Target protocol address |                         |





## # Encapsulation:

- An ARP packet (request or reply) is encapsulated directly into the data link frames.
- Fig shows an ARP encapsulated in Ethernet frame.
- The type of field indicates that data carried by the frame is an ARP req or reply packet.

type field indicates that data carried by frame is ARP pkt

|                |                       |            |        |                                       |     |
|----------------|-----------------------|------------|--------|---------------------------------------|-----|
| Preamble & SDF | Dest <sup>n</sup> add | Source add | type   | Data                                  | CRC |
| 8 byte         | 6 byte                | 6 byte     | 2 byte | Data field cont. ARP req or reply pkt |     |

## # RARP (Reverse Addr Resol<sup>n</sup> Protocol)

- RARP is a part of TCP/IP protocol suite. It allows a computer, particularly a diskless workstation, to obtain an IP add from server. When a diskless TCP/IP workstation is booted on a n/w, it broadcast a RARP req packet on the local n/w.
- This add pkt is broadcast on n/w for all to receive because the workstation does not know the IP add of server that can supply it with an address.
- It indicates its own phy n/w add (the MAC add) in the request so the server will know where to return a reply.
- The server that receives the req looks in a table of matches the MAC add with an IP add, and then returns the IP address to diskless workstation. See also



## Internet Protocol:

- This is host to host n/w layer delivery protocol designed for the Internet.
- IP is a connectionless datagram protocol with no guarantee of reliability.
- It is an unreliable protocol because it does not provide any error control or flow control.
- IP can only detect the error and discards the packets if it is corrupted.
- If IP is to be made more reliable, then it must be paired with reliable protocol such as TCP of the transport layer.
- Each datagram is handled independently and each one can follow a diff route to dest<sup>n</sup>.
- So there is possibility of receiving out of order packets at dest<sup>n</sup>. Some pkts may even be lost or corrupted.
- IP relies on a higher level protocol to take care of all these problems.



## ★ Q) Explain Header format of IPv6?

- IPv6 is next generation Internet Protocol designed as a successor to IP version 4. IPv6 was designed to enable high performance, scalable Internet.
- This was achieved by overcoming many of the weaknesses of IPv4 protocol and by adding several new features.

### Advantages of IPv6

- 1) Large add space: IPv6 has 128-bit add space, which is 4 times wider in bits in compared to IPv4's 32 bit add space. So there is huge increase in add space.
- 2) Better header format: IPv6 uses a better header format. In its header format option are separated from base headers.
  - The option are inserted when needed, both base header & upper layer data.
  - This helps in speeding up routing process.
- 3) New options:
  - New options have been added in IPv6 to increase functionality.
- 4) Possibility of extension:
  - IPv6 has been designed in such a way that there is possibility of extension of protocol if required.
- 5) More Security:
  - It includes encryption of packets.
- 6) Support to resource allocation:
  - To implement better support for real time traffic (video conf) IPv6 includes flow label in specifi. With flow label mechanism routers can recognize to which end-to-end flow the pkt belongs.
- 7) Plug and Play:
  - Connect machine to n/w automatically.



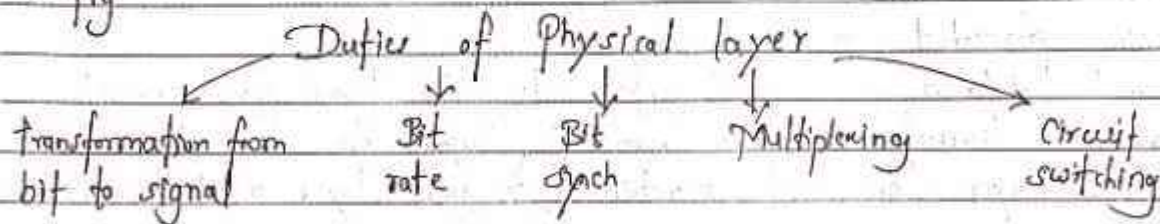
## Physical Layer

Q) Write a note on Physical Layer Design Issues?

The physical layer defines the actual medium which is used for carrying data from one computer to another.

- The major task of physical layer is to provide service for data link layer.

- fig



1) Transf<sup>n</sup> from bit to signal:

- The data link consist of 0's and 1's in bit form. This bit stream can not travel as it is on the tx medium.

- So physical layer converts bit stream into a signal which is suitable for the tx medium.

2) Bit rate control:

- The tx medium decide the highest value of bit rate & physical layer act as bit controller.

- The design of physical layer hardware & software determine the data rate.

3) Bit synchronization:

- The timing related to data bit transfer is very important in computer comm<sup>n</sup>.

- The phy layer governs the synch of bits by providing a c/k which controls the tx as well as rx.

4) Multiplexing:

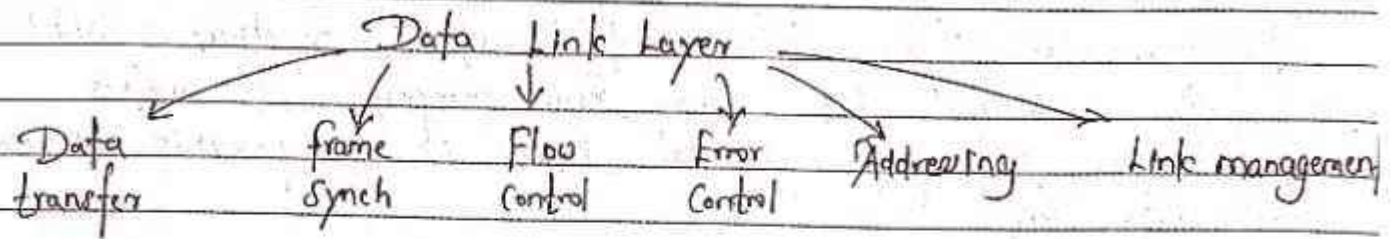
Physical layer can use diff techn of mux, in order to improve the channel efficiency.

5) Switching:

There are three switching methods, circuit switching, msg switching & packet switching. Out of which, packet switching is fastest of physical layer.



## 8) Data link layer design Issues:



### 1) Service provided to n/w layer:

A well defined service interface to n/w layer. The principle service is transferring data from n/w layer on source machine to n/w layer on dest<sup>n</sup> machine to n/w layer on dest<sup>n</sup> machine.

### 2) Frame Synchronisation

The source machine sends data in blocks called frames to the dest<sup>n</sup> machine. The starting & ending of each frame should be recognised by dest<sup>n</sup> machine.

### 3) Flow control:

The source machine must not send data frames at rate faster than dest<sup>n</sup> machine can accept them.

### 4) Error control:

The error made in bits during tx from source to dest<sup>n</sup> machine must be detected and corrected.

### 5) Addressing:

On a multipt line, such as many machine connected together (LAN), the identity of individual machine must be specified while transmitted data frames.

### 6) Control and data on same link:

The data and control info is combined in frame & transmit from source to dest<sup>n</sup> machine. The dest<sup>n</sup> machine must be able to recognise control info from data being transmitted.

### 7) Link management:

The initiation, maintenance & termination of link bet<sup>n</sup> the



**SHIVAJI UNIVERSITY, KOLHAPUR**  
**ELECTRONICS AND TELECOMMUNICATION ENGINEERING**  
**SUBJECT NAME: EMBEDDED SYSTEMS**

**Course Details**

|                                               |                                                                               |
|-----------------------------------------------|-------------------------------------------------------------------------------|
| <b>Class</b>                                  | <b>Final Year B. Tech. Semester - VII</b>                                     |
| <b>Course Code and Course Title</b>           | <b>PCC-ETC 702: Embedded Systems</b>                                          |
| <b>Prerequisites</b>                          | <b>Fundamentals of Microprocessor and Microcontroller and 'C' Programming</b> |
| <b>Teaching scheme :Lectures + Practical</b>  | <b>4 Hrs. + 2 Hrs.</b>                                                        |
| <b>Credits</b>                                | <b>4 + 1</b>                                                                  |
| <b>Evaluation Scheme ESE + CIE for Theory</b> | <b>70 (ESE) + 30 (CIE)</b>                                                    |

|                                 |                                                    |
|---------------------------------|----------------------------------------------------|
| <b>Teaching scheme</b>          | <b>Examination scheme</b>                          |
| <b>Lectures : 4 Hrs./ Week</b>  | <b>Theory : 100 Marks,<br/>70 (ESE) + 30 (CIE)</b> |
| <b>Practical : 2 Hrs./ Week</b> | <b>TW: 25 Marks POE: 50 Marks</b>                  |

**Course Objectives:** The course aims to :

|    |                                                        |
|----|--------------------------------------------------------|
| 1. | Study different concepts and programming of PIC 16F877 |
| 2. | Study different on-chip resources of PIC 16F877        |
| 3. | Study different concepts of ARM7                       |
| 4. | Study Programming of ARM7                              |
| 5. | Study different on chip resources of LPC 2148          |
| 6. | Understand basic concepts of RTOS                      |

**Outcomes:** Upon successful completion of this course, the students will be able to:

|    |                                                   |
|----|---------------------------------------------------|
| 1. | Develop programs using PIC 16F877                 |
| 2. | Apply on-chip resource facility of PIC 16F877.    |
| 3. | Understand Embedded systems and concepts of ARM7. |
| 4. | Develop programs using ARM7                       |
| 5. | Apply on chip resource facility of LPC 2148.      |
| 6. | Understand RTOS concept                           |



| COURSE CONTENTS |                                                                                                                                                                                                                                                                                                                                                                                   |        |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| Unit No.1       | <b>INTRODUCTION TO PIC MICROCONTROLLER</b><br>Difference between RISC and CISC architecture, Features of PIC 16F877, Functional Pinout, CPU Architecture, Memory organization, Register file structure, CPU Registers: Status Word, FSR, INDF, PCLATH, PCL, Instruction set, Addressing modes and Simple assembly language Programming.                                           | 8 Hrs. |
| Unit No.2       | <b>ON-CHIP RESOURCES OF PIC 16F877</b><br>I/O Ports, Timers, CCP Module, ADC, I2C, SPI, Associate registers and programming, Interrupt structure, Configuration word, Oscillator configuration, Reset alternatives.                                                                                                                                                               | 8 Hrs. |
| Unit No.3       | <b>INTRODUCTION TO EMBEDDED SYSTEM AND ARM PROCESSOR EMBEDDED SYSTEM:</b><br>Embedded System definition, Types of Embedded System, Characteristics and Design issues of Embedded systems.<br><b>ARM:</b> Embedded system Hardware, ARM data flow model, Register set, CPSR, Pipelining, Exceptions Interrupts & Vector Table, Cache and Tightly coupled memory, ARM Nomenclature. | 8 Hrs. |
| Unit No.4       | <b>INSTRUCTION SET AND PROGRAMMING</b><br>ARM Instruction set, Thumb Instruction set, Simple assembly language programming.                                                                                                                                                                                                                                                       | 7 Hrs. |
| Unit No.5       | <b>LPC 2148 MICROCONTROLLER</b><br>Features, Architecture details, Port structure, Timer/Counter, UART, ADC module, Embedded 'C' programming for interfacing LED's, LCD, Keyboard.                                                                                                                                                                                                | 9 Hrs. |
| Unit No.6       | <b>REAL TIME OPERATING SYSTEM (RTOS)</b><br>Introduction to RTOS concept, Embedded software architectures: Round robin, Round robin with interrupts, Function queue scheduling and Real time operating system, Tasks and Task states, Task scheduling, Shared data and Reentrancy, Semaphores and shared data using semaphores, Protecting shared data.                           | 8 Hrs. |

**Text Books:**

|    |                                                                                                                   |
|----|-------------------------------------------------------------------------------------------------------------------|
| 1. | Design with PIC Microcontrollers by John B. Peatman, Pearson                                                      |
| 2. | Embedded System Design By Frank Vahid / Tony Givargis, Wiley Publication                                          |
| 3. | An Embedded Software Primer, David E. Simon Pearson Education, Asia Publication                                   |
| 4. | ARM System Developers Guide Designing & Optimizing System Software by Andrew N., Dominic Sloss, and Chris Wright. |
| 5. | Datasheet of PIC16F877 and LPC 2148                                                                               |



**REFERENCE BOOKS:**

|    |                                                                                                    |
|----|----------------------------------------------------------------------------------------------------|
| 1. | Embedded systems by Raj Kamal, McGraw Hill                                                         |
| 2. | Real- Time Systems Design and Analysis by Phillips A. Laplante, Wiley india Edition.               |
| 3. | Embedded/ Real-Time Systems: Concepts, Design & Programming By Dr. K V K K Prasad, Dreamtech Press |
| 4. | Embedded Systems (A contemporary design tool) by James K Peckol, Wiley Publication.                |

**LIST OF EXPERIMENTS : (MINIMUM EIGHT (8) EXPERIMENTS)**

| Sr. No. | Title of Experiment                                                                              |
|---------|--------------------------------------------------------------------------------------------------|
| 1.      | To study Arithmetic and Logical instructions in PIC 16F877.                                      |
| 2.      | To study Indirect Addressing mode in PIC 16F877.                                                 |
| 3.      | To Flash LED connected to Port using Timer delay in PIC 16F877                                   |
| 4.      | To study any application using CCP Module in PIC 16F877                                          |
| 5.      | To demonstrate serial communication in PIC 16F877                                                |
| 6.      | To study Arithmetic and Logical instructions in LPC 2148                                         |
| 7.      | To study Load and Store instructions in LPC 2148                                                 |
| 8.      | To flash the Port pin of LPC 2148 using Embedded 'C'.                                            |
| 9.      | To demonstrate input/ output device interfacing related programs in LPC 2148 using Embedded 'C'. |
| 10.     | To demonstrate serial communication in LPC 2148 using Embedded 'C'.                              |

**GUIDELINES TO PAPER SETTER:**

In theory ESE examination of 70 marks following points should be considered:

Question paper should contain 30% programming and 70% theory.

- Q.1 MCQ's based on complete syllabus. (14 Marks)
- Q.2 Based on unit no 1, 2, 3 (Carries 14 marks)
- Q.3 Based on unit no 1, 2, 3 (Carries 14 marks)
- Q.4 Based on unit no 4, 5, 6 (Carries 14 marks)
- Q.5 Based on unit no 4, 5, 6 (Carries 14 marks)





SHIVAJI UNIVERSITY, KOLHAPUR  
ELECTRONICS AND TELECOMMUNICATION ENGINEERING  
SUBJECT NAME: **COMPUTER NETWORKS**

Course Details

|                                        |                               |
|----------------------------------------|-------------------------------|
| Class                                  | Final Year B. Tech. Sem-VII   |
| Course Code and Course Title           | PCC-ETC703: Computer Networks |
| Prerequisites                          | Digital Communication         |
| Teaching scheme: Lectures + Practical  | 4 Hrs. + 2 Hrs.               |
| Credits                                | 4 + 1                         |
| Evaluation Scheme ESE + CIE for Theory | 70 (ESE) + 30 (CIE)           |

|                        |                                           |
|------------------------|-------------------------------------------|
| Teaching scheme        | Examination scheme                        |
| Lectures: 4 Hrs. /Week | Theory: 100 Marks,<br>70 (ESE) + 30 (CIE) |
| Practical: 2 Hrs./Week | TW: 25 Marks, OE: 50 Marks                |

|                                                   |                                                                                                                   |
|---------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Course Objectives:</b><br>The course aims to : |                                                                                                                   |
| 1                                                 | To provide students with an overview of the concepts and fundamentals of data communication and computer networks |
| 2                                                 | Review the state of art in open research area such as LAN, MAN, WLAN & applications Computer Networking           |
| 3                                                 | Acquire the required skill to design simple computer networks.                                                    |
| 4                                                 | Describe various functions and protocols at each layer of OSI and TCP/IP reference models.                        |

|                                                                                                     |                                                                                           |
|-----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| <b>Course Outcomes:</b><br>Upon successful completion of this course, the students will be able to: |                                                                                           |
| 1                                                                                                   | State the evolution of Computer network, classifies different types of Computer Networks. |
| 2                                                                                                   | Design, implements, and analyzes simple computer networks.                                |
| 3                                                                                                   | Identify, formulate, and solve network engineering problems.                              |
| 4                                                                                                   | Illustrate different OSI and TCP/IP protocols.                                            |

| <b>COURSE CONTENTS</b> |                                                                                                                                                                                                                                                                                                                                       |               |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| <b>Unit No.1</b>       | <b>INTRODUCTION TO COMPUTER NETWORK</b><br>History and development of computer network, network application, network software and hardware components, reference models: layer details of OSI, TCP/IP models., Network topology, Transmission media and types, Network Devices: Network Connectors, Hubs, Switches, Routers, Bridges. | <b>6 Hrs.</b> |
| <b>Unit No.2</b>       | <b>DATA LINK LAYER</b><br>Design issues, sliding window protocols, HDLC – types of stations, modes of operation & frame formats, Random access Protocols, IEEE 802.3 frame formats.                                                                                                                                                   | <b>6 Hrs.</b> |
| <b>Unit No.3</b>       | <b>NETWORK LAYER</b><br>Design issues, Routing algorithms – shortest path, distance vector routing, link state routing. Routing protocols - RIP, OSPF, IP Addressing, Subnetting/super netting, IPv4, IPv6 header format and basic address mode, DHCP, Congestion control, traffic shaping algorithms.                                | <b>8 Hrs.</b> |
| <b>Unit No.4</b>       | <b>TRANSPORT LAYER</b><br>Transport layer-Process to process delivery, UDP, TCP, TCP services, TCP Segment, TCP Timers, Flow control, congestion control and Quality of Service.                                                                                                                                                      | <b>8 Hrs.</b> |
| <b>Unit No:5</b>       | <b>APPLICATION LAYER</b><br>DNS, HTTP, SMTP, Telnet, FTP                                                                                                                                                                                                                                                                              | <b>8 Hrs.</b> |
| <b>Unit No.6</b>       | <b>MULTIMEDIA IN INTERNET</b><br>Streaming stored audio/video, Real-time interactive audio/video, Real-time transport protocol (RTP), Real-time transport control protocol (RTCP), Voice over IP (VoIP)                                                                                                                               | <b>6 Hrs.</b> |

**TEXT BOOKS:**

|   |                                                                                            |
|---|--------------------------------------------------------------------------------------------|
| 1 | Forouzan, , "Data Communication and Networking" 11ndedition, TataMc-Graw Hill, Publication |
| 2 | Tanenbaum, "Computer Networks", IVth Edition, pearson Education                            |



**REFERENCE BOOKS:**

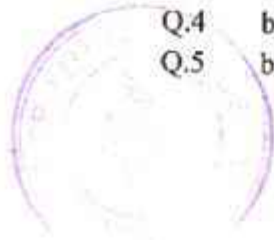
|   |                                                                                             |
|---|---------------------------------------------------------------------------------------------|
| 1 | Wayne Tomasi, "Introduction to Data communications and Networking" Pearson Education.       |
| 2 | Forouzan, "TCP/IP Protocol Suite", III <sup>rd</sup> Edition Tata Mc-Graw Hill publication. |

**NOTE: Minimum Eight Practical's based on above syllabus.**

**GUIDELINES TO PAPER SETTER:**

**In theory ESE examination of 70 marks following points should be considered:**

- Q.1 MCQ's based on complete syllabus. (Carries 14 Marks)
- Q.2 based on unit no 1, 2, 3 (Carries 14 Marks)
- Q.3 based on unit no 1, 2, 3 (Carries 14 Marks)
- Q.4 based on unit no 4, 5, 6 (Carries 14 Marks)
- Q.5 based on unit no 4, 5, 6 (Carries 14 Marks)



**SHIVAJI UNIVERSITY, KOLHAPUR**  
**ELECTRONICS AND TELECOMMUNICATION ENGINEERING**  
**SUBJECT NAME: IMAGE PROCESSING**

**Course Details**

|                                               |                                     |
|-----------------------------------------------|-------------------------------------|
| <b>Class</b>                                  | <b>Final Year B. Tech. Sem-VII</b>  |
| <b>Course Code and Course Title</b>           | <b>PCC-ETC704: Image processing</b> |
| <b>Prerequisites</b>                          | <b>Digital Signal processing</b>    |
| <b>Teaching scheme: Lectures + practical</b>  | <b>4 Hrs. + 2 Hrs.</b>              |
| <b>Credits</b>                                | <b>4 + 1</b>                        |
| <b>Evaluation Scheme ESE + CIE for Theory</b> | <b>70 (ESE) + 30 (CIE)</b>          |

|                               |                                                   |
|-------------------------------|---------------------------------------------------|
| <b>Teaching scheme</b>        | <b>Examination scheme</b>                         |
| <b>Lectures: 4 Hrs. /Week</b> | <b>Theory: 100 Marks,<br/>70 (ESE) + 30 (CIE)</b> |
| <b>Practical: 2 Hr./Week</b>  | <b>TW: 25 Marks</b>                               |

|                           |                                                                               |
|---------------------------|-------------------------------------------------------------------------------|
| <b>Course Objectives:</b> |                                                                               |
| The course aims :         |                                                                               |
| 1                         | To study fundamentals of Digital Image Processing.                            |
| 2                         | To acquaint students with mathematical transforms for image processing.       |
| 3                         | To familiarize students with image filtering techniques.                      |
| 4                         | To understand different morphological operations.                             |
| 5                         | To introduce various image segmentation techniques.                           |
| 6                         | To explain different image compression techniques and color image processing. |

|                                                                          |                                                                  |
|--------------------------------------------------------------------------|------------------------------------------------------------------|
| <b>Course Outcomes:</b>                                                  |                                                                  |
| Upon successful completion of this course, the students will be able to: |                                                                  |
| 1                                                                        | List fundamental steps involved in Digital Image Processing.     |
| 2                                                                        | Apply different transforms and filtering techniques on an image. |
| 3                                                                        | Apply morphological operations                                   |
| 4                                                                        | Perform image segmentation                                       |
| 5                                                                        | Apply compression techniques.                                    |
| 6                                                                        | Perform various operations on color image.                       |



| <b>COURSE CONTENTS</b> |                                                                                                                                                                                                                                                                                                      |               |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| <b>Unit No.1</b>       | <b>DIGITAL IMAGE FUNDAMENTALS</b><br>Fundamentals steps in DIP, Components of image processing system, Elements of Visual Perception, Image sensing and acquisition, image sampling and quantization, basic relations between pixels                                                                 | <b>8 Hrs.</b> |
| <b>Unit No.2</b>       | <b>IMAGE TRANSFORMS</b><br>Basic intensity transformation: image negation, Log transformation, power law transformation, Piecewise linear transformation functions, arithmetic and Logic operation, Histogram processing (equalization and matching), sine cosine, Hadamard, Haar, Slant transform . | <b>8 Hrs.</b> |
| <b>Unit No.3</b>       | <b>IMAGE FILTERING</b><br>Fundamentals of spatial filtering, smoothing and Sharpening in spatial domain, smoothing and Sharpening in frequency domain.                                                                                                                                               | <b>7 Hrs.</b> |
| <b>Unit No.4</b>       | <b>MORPHOLOGICAL IMAGE PROCESSING</b><br>Dilation & erosion, opening and closing operation, Hit- or -miss transformation, Basic morphological algorithms: Boundary extraction, region filling, thinning and thickening, skeletons                                                                    | <b>8 Hrs.</b> |
| <b>Unit No.5</b>       | <b>IMAGE SEGMENTATION</b><br>Detection of discontinuities: Point detection, line detection, edge detection, (Sobel, Prewitt, Laplacian), global and adaptive thresholding, Region based segmentation ( region growing, region splitting and merging).                                                | <b>8Hrs.</b>  |
| <b>Unit No.6</b>       | <b>IMAGE COMPRESSION</b><br>Fundamentals, Coding redundancy , interpixel redundancy, fidelity criteria , image compression model, lossless predictive coding, Lossy predictive coding<br><b>Color Image Processing</b>                                                                               | <b>9 Hrs.</b> |
|                        | Color fundamentals, Color models , pseudocolor, image processing, full color image processing, Color transformations                                                                                                                                                                                 |               |

**TEXT BOOKS:**

|   |                                                                                      |
|---|--------------------------------------------------------------------------------------|
| 1 | Digital image processing : Rafael C Gonzalez , Richard E. Woods: Pearson Publication |
| 2 | Digital image processing and Analysis- B. Chanda , D. Datta , majnudar               |
| 3 | Fundamentals of digital Image Processing- Anil K.Jain.                               |



**REFERENCE BOOKS:**

|   |                                                                                              |
|---|----------------------------------------------------------------------------------------------|
| 1 | Digital image processing- S. Jayraman, S Esakkirajan , Veerakumar:MGH                        |
| 2 | Digital image processing and Analysis- B. Chanda , D. Datta, majnudar:PHI                    |
| 3 | Digital image processing using Matlab- Rafael C Gonzalez                                     |
| 4 | Fundamentals of Digital Image Processing-S.Annadurai, R. Shanmugalaxmi : Pearson Publication |
| 5 | Digital Image Processing- S.Shridhar 6 Digital Image Processing – Pratt                      |

**Practical based on MATLAB/Scilab programs: Any Eight experiments based on above syllabus**

|    |                                                                                                                                                            |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | Reading and displaying of image (Various image file format) and to understand the notion of connectivity and neighborhood defined for a point in an image. |
| 2  | Simple gray level transformation                                                                                                                           |
| 3  | Histogram processing                                                                                                                                       |
| 4  | Image transforms                                                                                                                                           |
| 5  | Image arithmetic operations                                                                                                                                |
| 6  | Image smoothing operation                                                                                                                                  |
| 7  | Edge detection                                                                                                                                             |
| 8  | Morphological operation                                                                                                                                    |
| 9  | Segmentation using thresholding                                                                                                                            |
| 10 | image compression                                                                                                                                          |
| 11 | Color image Processing                                                                                                                                     |

**GUIDELINES TO PAPER SETTER:**

**In theory ESE examination of 70 marks following points should be considered:**

- Q.1 MCQ's based on complete syllabus. (Carries 14 Marks)
- Q.2 based on unit no 1, 2, 3 (Carries 14 Marks)
- Q.3 based on unit no 1, 2, 3 (Carries 14 Marks)
- Q.4 based on unit no 4, 5, 6 (Carries 14 Marks)
- Q.5 based on unit no 4, 5, 6 (Carries 14 Marks)





**SHIVAJI UNIVERSITY, KOLHAPUR**  
**ELECTRONICS AND TELECOMMUNICATION ENGINEERING**  
**SUBJECT NAME: WIRELESS COMMUNICATION**

**Course Details**

|                                               |                                            |
|-----------------------------------------------|--------------------------------------------|
| <b>Class</b>                                  | <b>Final Year B. Tech. Sem-VIII</b>        |
| <b>Course Code and Course Title</b>           | <b>PCC-ETC 802: Wireless Communication</b> |
| <b>Prerequisites</b>                          | <b>Communication</b>                       |
| <b>Teaching scheme : Lectures +Practical</b>  | <b>4 Hrs. + 2 Hrs.</b>                     |
| <b>Credits</b>                                | <b>4 + 1</b>                               |
| <b>Evaluation Scheme ESE + CIE for Theory</b> | <b>70 (ESE) +30 (CIE)</b>                  |

|                               |                                                   |
|-------------------------------|---------------------------------------------------|
| <b>Teaching scheme</b>        | <b>Examination scheme</b>                         |
| <b>Lectures: 4 Hrs. /Week</b> | <b>Theory: 100 Marks,<br/>70 (ESE) + 30 (CIE)</b> |
| <b>Practical: 2 Hrs./Week</b> | <b>TW: 25 Marks</b>                               |

**Course Objectives:**

The course aim is to :

|   |                                                        |
|---|--------------------------------------------------------|
| 1 | Focus on basic fundamentals of wireless communication. |
| 2 | Explain large & small scale radio wave propagation     |
| 3 | Understand basic wireless technology                   |
| 4 | Understand various wireless protocols                  |

**Course Outcomes:**

Upon successful completion of this course ,the students will be able to:

|   |                                                    |
|---|----------------------------------------------------|
| 1 | List basic fundamentals of wireless communication  |
| 2 | Analyze large & small scale radio wave propagation |
| 3 | Able to understand basic wireless technologies     |
| 4 | Able to understand and analyze wireless concepts   |





| <b>Course Contents</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |               |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| <b>Unit No.1</b>       | <p><b>FUNDAMENTALS OF WIRELESS COMMUNICATION:</b><br/>Wireless communication system, wireless media, Frequency spectrum, Technologies in digital wireless communication, WCOM channel specifications, Types of wireless communication, challenges in WC. Cellular concept: Introduction, frequency reuse ,Channel Assignment strategies, Handoff strategies, interface and system capacity, Trunking &amp; grade of service, Improving coverage &amp; capacity in cellular system</p> | <b>8 Hrs.</b> |
| <b>Unit No.2</b>       | <p><b>MOBILE RADIO PROPAGATION. LARGE SCALE PATH LOSS:</b><br/>Introduction to Radio Wave propagation, Free Space propagation model, Relating Power to Electric Field, The three Basic Propagation Mechanisms, Reflection, Ground Reflection (Two-Ray) Model, Diffraction, Scattering, Outdoor Propagation Models, Indoor Propagation Models.</p>                                                                                                                                     | <b>8 Hrs.</b> |
| <b>Unit No.3</b>       | <p><b>MOBILE RADIO PROPAGATION SMALL-SCALE FADING AND MULTIPATH :</b><br/>Small-Scale Multipath Propagation, Impulse Response Model of a Multipath Channel, Small-Scale Multipath Measurements, Parameters of Mobile Multipath Channels, Types of small-Scale Fading.</p>                                                                                                                                                                                                             | <b>8 Hrs.</b> |
| <b>Unit No.4</b>       | <p><b>WIRELESS NETWORKING: INTRODUCTION TO WIRELESS NETWORKS</b><br/>Difference Between Wireless and Fixed Telephone Networks, Development of Wireless Networks, Fixed Network Transmission Hierarchy, Traffic Routing in Wireless Networks, Common Channel Signaling (CCS), Architecture of B-ISDN &amp; services,</p>                                                                                                                                                               | <b>9 Hrs.</b> |
| <b>Unit No.5</b>       | <p><b>WIRELESS LAN &amp; BLUETOOTH</b><br/>Introduction, Infrared radio transmission infrastructure and adhoc networks, Detailed study of IEEE 802.11, Bluetooth, Wireless ATM.</p>                                                                                                                                                                                                                                                                                                   | <b>7 Hrs.</b> |
| <b>Unit No.6</b>       | <p><b>WIRELESS ACCESS PROTOCOL</b><br/>WAP (Wireless Application Protocol) architecture, Wireless Datagram, Wireless Transport layer security, wireless transaction, Wireless Session, Wireless Application Environment ,WML</p>                                                                                                                                                                                                                                                      | <b>8 Hrs.</b> |

**TEXT BOOKS:**

|   |                                                                              |
|---|------------------------------------------------------------------------------|
| 1 | Wireless Communications Principals & Practice- Theodore S. Rappaport, (P.E.) |
| 2 | Mobile Communications: Jachen Schiller ( Addison Westy)                      |



|   |                                                                                             |
|---|---------------------------------------------------------------------------------------------|
| 3 | Wireless and Mobile Networks Concept and protocols – Dr. Sunil kumar S Manvi<br>Wiley India |
|---|---------------------------------------------------------------------------------------------|

**REFERENCE BOOKS:**

|   |                                                                                                        |
|---|--------------------------------------------------------------------------------------------------------|
| 1 | Wireless Networks by P. Nicopolitidis, M. S. Obaidat, G. I. Papadimitriou, A. S.Pomportsis; Wiley Pub. |
| 2 | Wireless Communication & Networks by William Stallings( Pearson Edition)                               |
| 3 | Wireless communication and Networks by Upena Dalal( Oxford)                                            |

**LIST OF EXPERIMENTS: (ANY EIGHT (8) EXPERIMENTS)**

|    |                                                                                    |
|----|------------------------------------------------------------------------------------|
| 1  | Study of ISDN Trainer kit Hardware & Software Setup.                               |
| 2  | Study of Architecture of ISDN kit.                                                 |
| 3  | Study of Analog & Digital Subscriber Link establishment using ISDN trainer kit.    |
| 4  | Study of numbering plans in ISDN trainer kit.                                      |
| 5  | Study of Establishment point to point & Multidraft Links using ISDN.               |
| 6  | Study of Protocol Analysis (based on any protocol).                                |
| 7  | Study of Mobile Communication Set up (Study of Link Mobile Trainer Kit , Handset). |
| 8  | Study of Multiple Access Techniques ( Any one).                                    |
| 9  | Visit to Mobile Company Like BSNL , AIRTEL , Idea.                                 |
| 10 | Implementation of outdoor propagation Model (Any one) using Matlab.                |
| 11 | Implementation of Free Space propagation model using Matlab                        |

**GUIDELINES TO PAPER SETTER:**

**In theory ESE examination of 70 marks following points should be considered:**

- Q.1 MCQ's based on complete syllabus (Carries 14 Marks)
- Q.2 Based on unit no 1, 2, 3 (Carries 14 marks)
- Q.3 Based on unit no 1, 2, 3 (Carries 14 marks)
- Q.4 Based on unit no 4, 5, 6 (Carries 14 marks)
- Q.5 Based on unit no 4, 5, 6 (Carries 14 marks)





SHIVAJI UNIVERSITY, KOLHAPUR

ELECTRONICS AND TELECOMMUNICATION ENGINEERING

SUBJECT NAME: DIGITAL AND VLSI DESIGN

Course Details

|                                        |                                      |
|----------------------------------------|--------------------------------------|
| Class                                  | T. Y. B. Tech. Sem - V               |
| Course Code and Course Title           | PCC-ETC503 : Digital and VLSI Design |
| Prerequisites                          | Fundamentals of Electronics          |
| Teaching scheme : Lectures + Practical | 4 Hrs. + 2 Hrs.                      |
| Credits                                | 4 + 1                                |
| Evaluation Scheme ESE + CIE for Theory | 70 (ESE) + 30 (CIE)                  |

|                           |                                            |
|---------------------------|--------------------------------------------|
| Teaching scheme           | Examination scheme                         |
| Lectures : 4 Hrs. / Week  | Theory : 100 Marks,<br>70 (ESE) + 30 (CIE) |
| Practical : 2 Hrs. / Week | TW: 25 Marks<br>POE: 50 Marks              |

Course Objectives:

The course aims to :

|   |                                                                                                                      |
|---|----------------------------------------------------------------------------------------------------------------------|
| 1 | Understand principles and operations of combinational & sequential logic circuits.                                   |
| 2 | Design & implement digital circuits (combinational & sequential) using VHDL.                                         |
| 3 | Explain students the fundamental concepts of Hardware Description Language and design flow of digital system design. |

Course Outcomes:

Upon successful completion of this course, the students will be able to:



|   |                                                                                                                                  |
|---|----------------------------------------------------------------------------------------------------------------------------------|
| 1 | Apply Boolean laws/K-Map-method, to reduce a given Boolean function                                                              |
| 2 | Design & realize combinational logic circuits using logic gates.                                                                 |
| 3 | Demonstrate the operation of flip-flops, counters , shift registers Synchronous sequential machine using Moore and Mealy machine |
| 4 | Design combinational and sequential logic circuits using various description techniques in VHDL                                  |

| Course Contents |                                                                                                                                                                                                                                                                                                                                                         |        |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| Unit No: 1      | <p><b>Basics of digital systems:</b></p> <p>Generation of Switching Equations from Truth Table , Canonical forms ,K-map(Karnaugh map) 2,3,4 and 5 variables, K map with Don't care terms - Quine Mc-Cluskey minimization technique, Quine Mc-Cluskey using Don't Care Terms ,Binary codes, Code Conversion.</p>                                         | 7 Hrs. |
| Unit No: 2      | <p><b>Introduction to VHDL:</b></p> <p>Level of abstraction. Need of HDL,VLSI Design flow, Features and capabilities of VHDL, Elements of VHDL (Entity Architecture, Library, Package, and Configuration), Modeling styles in VHDL, Identifiers, operators , Data objects, data types, literals, Delay Models, Concurrent and sequential statement.</p> | 7 Hrs. |
| Unit No: 3      | <p><b>Combinational logic Design :</b></p> <p>Adder, Subtractor, Code converters (binary to gray &amp; gray to binary, BCD to Excess 3 and vice versa, BCD to 7 segment display), Multiplexer and Demultiplexer , Encoder, Priority encoder, Decoder, Comparator , ALU, Barrel shifter. VHDL coding for combinational circuits.</p>                     | 7 Hrs. |
| Unit No: 4      | <p><b>Sequential logic Design:</b></p> <p>1-Bit Memory Cell, Latches (SR, JK, D and T), Clocked latches (SR,</p>                                                                                                                                                                                                                                        | 7 Hrs. |



|                   |                                                                                                                                                                                                                                                                                                                    |               |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
|                   | JK, D and T), flips flop (SR, JK, T and D). Use of preset and clear, Excitation Table for flip flops, and Conversion of flip flops, Timing parameters of FF, Shift registers (SISO, SIPO, PIPO, and PISO). VHDL coding for Sequential circuits.                                                                    |               |
| <b>Unit No: 5</b> | <b>Counters and Finite State Machines:</b><br>Counter – ripple counters ,synchronous counters , Up/down counters, Ring counters, Johnson Counter, MOD-N counter, FSM, Moore/Mealy machines, state diagram, state table, state assignment and state reduction, Sequence detector. VHDL coding for Counters and FSM. | <b>7 Hrs.</b> |
| <b>Unit No: 6</b> | <b>Semiconductor Memories and Programmable Logic Devices</b><br>Memory devices: ROM, PROM, EPROM, EEPROM, RAM, SRAM, DRAM, NVRAM, Programmable logic devices: PAL ,PLA,CPLD and FPGA .Logic implementation using Programmable Devices (ROM, PLA)                                                                   | <b>7 Hrs.</b> |

**Text Books:**

|   |                                                                                                        |
|---|--------------------------------------------------------------------------------------------------------|
| 1 | A. Anand Kumar, "Fundamentals of digital circuits", 4 <sup>th</sup> edition, PHI publication, 2016     |
| 2 | Stephen Brown and Zvonko Vranesic, "Fundamentals of Digital Logic with VHDL design", Tata Mc-graw Hill |

**Reference Books:**

|   |                                                                                                                                     |
|---|-------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Wakerly, "Digital Design Principles and Application", Pearson Education                                                             |
| 2 | M. Morris Mano, " Digital Design", 3 <sup>rd</sup> Edition , Pearson Education                                                      |
| 3 | Roth John, "Principals of Digital System Design using VHDL", Cengage Learning.                                                      |
| 4 | R. P. Jain, "Modern digital electronics", 3 <sup>rd</sup> edition, 12 <sup>th</sup> reprint TATA Tata McGraw Hill Publication, 2007 |



**List of Experiments (Minimum 8 experiment):**

|    |                                                               |
|----|---------------------------------------------------------------|
| 1  | Implementation of Boolean function using IC.                  |
| 2  | Design and simulate half adder and full adder using VHDL.     |
| 3  | Design and simulate Multiplexer and Demultiplexer using VHDL. |
| 4  | Design and simulate Comparator adder using VHDL.              |
| 5  | Design and simulate 3to8 decoder using VHDL.                  |
| 6  | Design and simulate flip-flops using VHDL.                    |
| 7  | Design and simulate 4-bit up-down counter using VHDL.         |
| 8  | Design and simulate Shift register using VHDL.                |
| 9  | Design and simulate Sequence detector using VHDL.             |
| 10 | Mini project based on above syllabus.                         |

**Note:**

- 1) Guidelines to paper setter: (30 % weightage to VHDL codes and 70% theory)
- 2) In theory ESE examination of 70 marks following points should be considered,
  - Q.1 MCQ's based on complete syllabus. (14 Marks)
  - Q.2 Based on unit no 1, 2, 3 (Carries 14 marks)
  - Q.3 Based on unit no 1, 2, 3 (Carries 14 marks)
  - Q.4 Based on unit no 4, 5, 6 (Carries 14 marks)
  - Q.5 Based on unit no 4, 5, 6 (Carries 14 marks)



SHIVAJI UNIVERSITY, KOLHAPUR

ELECTRONICS AND TELECOMMUNICATION ENGINEERING

SUBJECT NAME: OPTICAL COMMUNICATION

Course Details

|                                        |                                  |
|----------------------------------------|----------------------------------|
| Class                                  | T. Y. B. Tech. Sem - V           |
| Course Code and Course Title           | PCC-ETC504:Optical Communication |
| Prerequisites                          | Physics, Optoelectronics         |
| Teaching scheme : Lectures + Practical | 4 Hrs. + 2 Hrs.                  |
| Credits                                | 4 + 1                            |
| Evaluation Scheme ESE + CIE for Theory | 70 (ESE) + 30 (CIE)              |

|                           |                                            |
|---------------------------|--------------------------------------------|
| Teaching scheme           | Examination scheme                         |
| Lectures : 4 Hrs. / Week  | Theory : 100 Marks,<br>70 (ESE) + 30 (CIE) |
| Practical : 2 Hrs. / Week | TW: 25 Marks<br>POE: 50 Marks              |

Course Objectives:

The course aims to :

|   |                                                                                                                          |
|---|--------------------------------------------------------------------------------------------------------------------------|
| 1 | Describe the basics optical communication along with optical fiber structure and light propagating mechanisms in detail. |
| 2 | Analyze the signal degradation mechanisms                                                                                |
| 3 | Explain the construction and working of optical sources and detectors.                                                   |





**Course Outcomes:**

Upon successful completion of this course, the students will be able to:

|   |                                                                                                 |
|---|-------------------------------------------------------------------------------------------------|
| 1 | Differentiate the different types of optical fiber structures and light propagating mechanisms. |
| 2 | Acquire knowledge of signal degradation mechanism in optical fiber.                             |
| 3 | Understand the construction of and working of optical sources and detectors.                    |

**Course Contents**

|                   |                                                                                                                                                                                                                                                                                          |               |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
|                   | <b>Overview of Optical Fiber Communication</b>                                                                                                                                                                                                                                           |               |
| <b>Unit No: 1</b> | Motivation for light wave communication, Basic Network Information Rates, The evolution of Optic System, Elements of Optical Fiber Transmission Link, optical spectral band, The nature of Light, Basic Optical Laws and Definitions, Single Mode Fibers, Graded Index fiber structures. | <b>6 Hrs.</b> |
| <b>Unit No: 2</b> | <b>Optical Fibers: Structures and Wave guiding</b><br>Optical Fiber Modes and Configurations, Mode theory for waveguides, Fiber Materials, Fiber Optic cables.                                                                                                                           | <b>6 Hrs.</b> |
| <b>Unit No: 3</b> | <b>Transmission characteristics of optical fibers.</b><br>Attenuation, material absorption losses, Scattering losses, bending losses, dispersion, polarization, nonlinear effects.                                                                                                       | <b>8 Hrs.</b> |
| <b>Unit No: 4</b> | <b>Optical Sources</b><br>Attenuation, material absorption losses, Scattering losses, bending losses, dispersion, polarization, nonlinear effects.                                                                                                                                       | <b>7 Hrs.</b> |
| <b>Unit No: 5</b> | <b>Optical Receiver</b><br>Physical Principal of Photodiodes, Photo detector Noise, Detectors Response Time, Structure for InGaAsAPDs, Temperature effect of Avalanche Gain, Comparison of Photo detectors , Fundamental                                                                 | <b>7 Hrs.</b> |



|                   |                                                                                                                                                                                                             |               |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
|                   | Receiver Operation, Digital Receiver Performance                                                                                                                                                            |               |
| <b>Unit No: 6</b> | <b>Advances in Optical Fiber System</b><br>Operational Principles of WDM, Passive Components, Tunable Sources, Tunable Filters, optical switching, SONET/SDH, Performance of WDM+EDFA Systems, optical CDMA | <b>8 Hrs.</b> |

**Text Books:**

|   |                                                                                                    |
|---|----------------------------------------------------------------------------------------------------|
| 1 | Gerd Keiser, "Optical Fiber Communication", 5 <sup>th</sup> Edition, Tata Mcgraw Hill Publication. |
|---|----------------------------------------------------------------------------------------------------|

**Reference Books:**

|   |                                                                                        |
|---|----------------------------------------------------------------------------------------|
| 1 | Senior, "Optical Communication", 3 <sup>rd</sup> Edition, Pearson Education.           |
| 2 | Agarwal, "Optical Fiber Communication", 3 <sup>rd</sup> edition, Wiley India.          |
| 3 | Ramaswamy, "Optical Networks", Elsevier India                                          |
| 4 | R. P. Khare, "Fiber optics and optoelectronics", Oxford University Press               |
| 5 | Anuradha, "Optical fiber and laser principles and applications", New Age Publications. |
| 6 | Dr .R .K .Singh "Fiber optic communication systems", Willey India.                     |

**List of Experiments (Minimum 8 experiment):**

|   |                                                                   |
|---|-------------------------------------------------------------------|
| 1 | Study of optic fiber communication system.                        |
| 2 | Transmission and reception of analog signal using optical fiber.  |
| 3 | Transmission and reception of digital signal using optical fiber. |
| 4 | Frequency modulation using optic fiber link.                      |



|    |                                                              |
|----|--------------------------------------------------------------|
| 5  | Calculation of bending loss in the optic fiber link.         |
| 6  | Study of numerical aperture.                                 |
| 7  | Study & calculation of attenuation loss in optic fiber link. |
| 8  | PC to PC communication by using optical cable                |
| 9  | Study of characteristics of LED.                             |
| 10 | Study of characteristics of LASER.                           |
| 11 | Frequency modulation by using voice link.                    |
| 12 | Study of Pulse width modulation using optic fiber.           |
| 13 | Two experiment based on simulation.                          |
| 14 | Study of coupling light into fiber.                          |

**Note:**

**Guidelines to paper setter:**

**In theory ESE examination of 70 marks following points should be considered,**

**Q.1 MCQ's based on complete syllabus. (14 Marks)**

**Q.2 Based on unit no 1, 2, 3 (Carries 14 marks)**

**Q.3 Based on unit no 1, 2, 3 (Carries 14 marks)**

**Q.4 Based on unit no 4, 5, 6 (Carries 14 marks)**

**Q.5 Based on unit no 4, 5, 6 (Carries 14 marks)**



**SHIVAJI UNIVERSITY, KOLHAPUR**

**ELECTRONICS AND TELECOMMUNICATION ENGINEERING**

**SUBJECT NAME: SIMULATION & MODELING**

**Course Details**

|                                               |                                    |
|-----------------------------------------------|------------------------------------|
| <b>Class</b>                                  | T. Y. B. Tech. Sem - V             |
| <b>Course Code and Course Title</b>           | PCC-ETC505:Simulation and Modeling |
| <b>Prerequisites</b>                          | C, C++ Programming                 |
| <b>Teaching scheme : Lectures + Practical</b> | 1 Hr. + 2 Hrs.                     |
| <b>Credits</b>                                | 1 + 1                              |
| <b>Evaluation Scheme ESE + CIE for Theory</b> | NIL                                |

|                                 |                                            |
|---------------------------------|--------------------------------------------|
| <b>Teaching scheme</b>          | <b>Examination scheme</b>                  |
| <b>Lectures : 1 Hr. / Week</b>  | <b>Theory :NIL</b>                         |
| <b>Practical: 2 Hrs. / Week</b> | <b>TW: 25 Marks</b><br><b>OE: 50 Marks</b> |

**Course Objectives:**

The course aims to :

|   |                                                                                 |
|---|---------------------------------------------------------------------------------|
| 1 | To develop problem solving skills and their implementation through basic Python |
| 2 | To understand and implement concepts of decision making statements              |
| 3 | To implement programs based on looping statements                               |
| 4 | To understand & implement programs based on built in functions                  |
| 5 | To develop simulations using python Simpy package                               |



**Course Outcomes:**

Upon successful completion of this course, the students will be able to:

|   |                                                                          |
|---|--------------------------------------------------------------------------|
| 1 | Understand the python programming basics                                 |
| 2 | Able to solve programs on decision making & looping statements in python |
| 3 | Understand python list, tuple, and dictionary collection concepts        |
| 4 | Understand simulation programs using SimPy Library                       |
| 5 | Design & Apply Simpy library functions to model real time problems.      |

**Course Contents**

|                   |                                                                                                                                                                                                                                                                                                                                                                     |              |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| <b>Unit No: 1</b> | <b>Introduction to Python</b><br>Introduction to Python: Why high level language, Scope of python, interactive mode and script mode. Variables, Operators and Operands in Python. Arithmetic, relational and logical operators, Operator precedence, Taking input using raw_input() and input() method and displaying output - print statement, Comments in Python. | <b>2Hrs.</b> |
| <b>Unit No: 2</b> | <b>Conditional and Looping</b><br>if - else statement and nested if - else while, for, use of range function in for, Nested loops, break, continue, pass statement Use of compound expression in conditional constructs, Nested conditional statements, Nested Looping structures                                                                                   | <b>2Hrs.</b> |
| <b>Unit No: 3</b> | <b>Functions</b><br>Built-In Function, Functions from math, random, time & date module. Composition User Define Function : Defining , invoking functions, passing parameters, Intra-package References, Packages in Multiple Directories                                                                                                                            | <b>2Hrs.</b> |
| <b>Unit No: 4</b> | <b>List:</b><br>Lists Concept of mutable lists, creating, initializing and accessing the elements of list, List operations, Concatenation, Membership, list slices,                                                                                                                                                                                                 | <b>2Hrs.</b> |



|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |       |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
|                   | List comprehensions List functions & methods: len, insert, append, extend, sort, remove, reverse, pop functions                                                                                                                                                                                                                                                                                                                                                                                                    |       |
| <b>Unit No: 5</b> | <p><b>Tuples&amp; sets:</b><br/>Immutable concept, creating, initializing and accessing the elements in a tuple; Tuple functions: cmp(), len(), max(), min(), tuple()</p> <p>Sets Concept of Sets , creating, initializing and accessing the elements of Sets operation Membership, union, intersection, difference, and symmetric difference Dictionaries Concept of key-value pair, creating, initializing and accessing the elements in a dictionary, Traversing, appending, updating and deleting elements</p> | 2Hrs. |
| <b>Unit No: 6</b> | <p><b>Simulations using Simpy</b><br/>Basic Concepts, understanding of SimPy's capabilities, Process Interaction, Waiting for a Process, Interrupting Another Process, Real-time simulations.</p>                                                                                                                                                                                                                                                                                                                  | 2Hrs. |

**Text Books:**

|   |                                                                                           |
|---|-------------------------------------------------------------------------------------------|
| 1 | Martin C. Brown , "Python: The Complete Reference", Tata McGraw Hill Publication, 2018    |
| 2 | Mark Lutz, "Learning Python" , O'Reilly Publication edition 2013                          |
| 3 | Michael Dawson, "Python Programming for Absolute Beginner", Cengage Learning edition 2010 |

**Reference Books:**

|   |                                                                                                |
|---|------------------------------------------------------------------------------------------------|
| 1 | David Beazley, "Python Essential Reference", 4 <sup>th</sup> edition, Developers library.      |
| 2 | Web reference SimPy: <a href="https://simpy.readthedocs.io/">https://simpy.readthedocs.io/</a> |



**List of Experiments (Minimum 8 experiment):**

|   |                                                                                                    |
|---|----------------------------------------------------------------------------------------------------|
| 1 | Write a python program to demonstrate basic data types in python                                   |
| 2 | Write python program to study Arithmetic, relational and logical operators and Operands in Python. |
| 3 | Write python programs to study if, if else , if else if statements                                 |
| 4 | Write python programs to study looping statements while & for                                      |
| 5 | Write python programs to study built in functions of string and math packages                      |
| 6 | Write python programs to study list access using membership operators.                             |
| 7 | Write python programs to study tuple using inbuilt functions                                       |
| 8 | Write python programs to study set operations and dictionary traversing                            |
| 9 | Write python programs to study Discrete event simulation using SimPy                               |



**SHIVAJI UNIVERSITY, KOLHAPUR**  
**ELECTRONICS AND TELECOMMUNICATION ENGINEERING**  
**SUBJECT NAME: DIGITAL SIGNAL PROCESSING**

**Course Details**

|                                        |                                        |
|----------------------------------------|----------------------------------------|
| Class                                  | T. Y. B. Tech. Sem - VI                |
| Course Code and Course Title           | PCC-ETC 601: Digital Signal Processing |
| Prerequisites                          | Signals and Systems                    |
| Teaching scheme :Lectures + Practical  | 4 Hrs. + 2 Hrs.                        |
| Credits                                | 4 + 1                                  |
| Evaluation Scheme ESE + CIE for Theory | 70 (ESE) + 30 (CIE)                    |

|                          |                                            |
|--------------------------|--------------------------------------------|
| Teaching scheme          | Examination scheme                         |
| Lectures : 4 Hrs. / Week | Theory : 100 Marks,<br>70 (ESE) + 30 (CIE) |
| Practical: 2 Hrs. / Week | TW: 25 Marks                               |

|                           |                                                                        |
|---------------------------|------------------------------------------------------------------------|
| <b>Course Objectives:</b> |                                                                        |
| The course aims to :      |                                                                        |
| 1                         | To understand Fast Fourier Transform and Fast Convolution              |
| 2                         | To understand design of digital FIR filters using various methods      |
| 3                         | To understand design of digital IIR filters using various methods      |
| 4                         | To understand the key architectural features of DSP Processor          |
| 5                         | To understand the basic concept of Multirate digital signal processing |
| 6                         | To understand the basic concept of wavelet transform                   |





**Course Outcomes:**

Upon successful completion of this course, the students will be able to:

|   |                                                                    |
|---|--------------------------------------------------------------------|
| 1 | Make use of FFT algorithm for filtering of long duration sequences |
| 2 | Design digital FIR filters                                         |
| 3 | Design digital IIR filters                                         |
| 4 | Implement FIR and IIR filters using DSP Processor                  |
| 5 | Apply the basic concept of Multirate digital signal processing     |
| 6 | Apply the basic concept of wavelet transform                       |

**Course Contents**

|                   |                                                                                                                                                                                                                                                                                                        |               |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| <b>Unit No: 1</b> | <b>Discrete Fourier Transform &amp; FFT Algorithms</b><br>Computational Complexity of DFT, Fast Fourier transform algorithms – Radix -2 DIT and DIF for DFT and IDFT computations, Circular convolution, Fast Convolution : Overlap-Add and Overlap-save algorithm.(Numerical)                         | <b>8 Hrs.</b> |
| <b>Unit No: 2</b> | <b>FIR Filter Design</b><br>Characteristic of FIR filter, properties of FIR filter, type of FIR filter Fourier series method, frequency sampling, Fourier series & windowing method.                                                                                                                   | <b>8 Hrs.</b> |
| <b>Unit No: 3</b> | <b>IIR Filter Design</b><br>Analog filters approximations, mapping of S-plane to Z-plane, Design of IIR using Impulse Invariance Method, Bilinear Transformation method, Frequency Transformation, Filter design methods: Butterworth filters, Chebyshev filters and its conversion to digital filter. | <b>8 Hrs.</b> |



|                          |                                                                                                                                                                                                                                                                                                                                                                   |                      |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|
| <p><b>Unit No: 4</b></p> | <p><b>Realization of Digital filters</b><br/>                     FIR and IIR filter realization in cascade form and parallel form .Effect of finite word length on realization.<br/>                     Introduction to DSP processors: TMS320C67XX, Architecture, Functional Units, pipelining, Registers, Addressing modes.</p>                               | <p><b>8 Hrs.</b></p> |
| <p><b>Unit No: 5</b></p> | <p><b>Multirate digital signal processing</b><br/>                     Need of Multirate digital signal processing , decimation by factor D, two stage decimator, interpolation by factor I , two stage Interpolator , sampling rate conversion by rational factor I/D , applications of multirate signal processing</p>                                          | <p><b>6 Hrs.</b></p> |
| <p><b>Unit No: 6</b></p> | <p><b>Wavelet Transform</b><br/>                     Fourier Transform and its limitations , short time Fourier transform, continuous wavelet Transform , Discretization of the continuous wavelet Transform, Multiresolution Approximations ; mother wavelet and Scaling functions, Haar wavelets and Daubechies wavelets, Applications of wavelet transform</p> | <p><b>6 Hrs.</b></p> |

**Text Books:**

|          |                                                                                                                                    |
|----------|------------------------------------------------------------------------------------------------------------------------------------|
| <p>1</p> | <p>John G Prokis, Manolakis, "Digital Signal Processing Principles, Algorithms and Application", Pearson Education publication</p> |
| <p>2</p> | <p>Salivahanam, A Vallavaraj, C. Guanapriya, "Digital Signal Processing", Tata McGraw Hill Publication.</p>                        |
| <p>3</p> | <p>A. Anand Kumar, " Digital Signal Processing", PHI Publications</p>                                                              |

**Reference Books:**

|          |                                                                                   |
|----------|-----------------------------------------------------------------------------------|
| <p>1</p> | <p>P. Ramesh Babu, "Digital Signal Processing", SciTech Publication</p>           |
| <p>2</p> | <p>Sanjeet Mitra, " Digital Signal Processing", Tata McGraw Hill Publication.</p> |



|   |                                                                       |
|---|-----------------------------------------------------------------------|
| 3 | Alan Oppenheim, Schafer, "Digital Signal Processing", PHI Publication |
|---|-----------------------------------------------------------------------|

**List of Experiments (Minimum 8 Experiments)**

|    |                                                                                                                                                                                                      |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | <p><b>Generation of DT signals</b></p> <p>a) Study of Unit impulse sequence</p> <p>b) Study of Unit step sequence</p> <p>c) Study of Exponential sequence</p> <p>d) Study of Sinusoidal sequence</p> |
| 2  | <b>Convolution and correlation of signals</b>                                                                                                                                                        |
| 3  | <b>Computation of DFT &amp; IDFT using standard formula</b>                                                                                                                                          |
| 4  | <b>Computation of DFT using FFT algorithms</b>                                                                                                                                                       |
| 5  | <b>Computation of circular convolution</b>                                                                                                                                                           |
| 6  | <b>Design of FIR LPF, HPF, BPF, BRF filter using Kaiser window</b>                                                                                                                                   |
| 7  | <b>Design of FIR filter using frequency sampling method</b>                                                                                                                                          |
| 8  | <b>Design of IIR LPF, HPF, BPF, BRF filter using impulse invariance method</b>                                                                                                                       |
| 9  | <b>Design of IIR LPF, HPF, BPF, BRF filter using bilinear transformation method</b>                                                                                                                  |
| 10 | <b>Computation of DCT</b>                                                                                                                                                                            |
| 11 | <b>Computation of DWT</b>                                                                                                                                                                            |
| 12 | To implement FIR & IIR filter using TMS320C67XX processor                                                                                                                                            |



SHIVAJI UNIVERSITY, KOLHAPUR

ELECTRONICS AND TELECOMMUNICATION ENGINEERING

SUBJECT NAME: MICROPROCESSOR AND MICROCONTROLLER

Course Details

|                                        |                                                      |
|----------------------------------------|------------------------------------------------------|
| Class                                  | T. Y. B. Tech. Sem - VI                              |
| Course Code and Course Title           | PCC-ETC 602: Microprocessor and Microcontroller      |
| Prerequisites                          | Digital Electronics, Fundamentals of 'C' Programming |
| Teaching scheme :Lectures + Practical  | 4 Hrs. + 2 Hrs.                                      |
| Credits                                | 4 + 1                                                |
| Evaluation Scheme ESE + CIE for Theory | 70 (ESE) + 30 (CIE)                                  |

| Teaching scheme           | Examination scheme                         |
|---------------------------|--------------------------------------------|
| Lectures : 4 Hrs. / Week  | Theory : 100 Marks,<br>70 (ESE) + 30 (CIE) |
| Practical : 2 Hrs. / Week | TW: 25 Marks<br>POE: 50 Marks              |

Course Objectives:

The course aims to :

|    |                                                                                 |
|----|---------------------------------------------------------------------------------|
| 1. | Understand fundamentals of 8085 Architecture and Programming.                   |
| 2. | To apply the knowledge of Interrupts and interfacing of memory, 8255 with 8085. |
| 3. | Understand fundamentals of 8051 Architecture and Programming.                   |
| 4. | Analyze Real time requirements using ON-Chip resources of 8051.                 |
| 5. | Evaluate need of I/O peripherals to satisfy system design requirements.         |
| 6. | Develop Embedded 'C' Programs for I/O Peripherals                               |



| <b>Course Outcomes:</b>                                                  |                                                                 |
|--------------------------------------------------------------------------|-----------------------------------------------------------------|
| Upon successful completion of this course, the students will be able to; |                                                                 |
| 1.                                                                       | Describe Architecture of 8085 and write various Programs.       |
| 2.                                                                       | Implement Interrupts and interfacing of memory, 8255 with 8085. |
| 3.                                                                       | Describe Architecture of 8051 and write various Programs.       |
| 4.                                                                       | Perform experiment using ON-Chip resources of 8051.             |
| 5.                                                                       | Select I/O peripherals to satisfy system design requirements.   |
| 6.                                                                       | Design Embedded 'C' Programs for I/O Peripherals                |

| <b>Course Contents</b> |                                                                                                                                                                                                                                                                                   |               |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| <b>Unit No: 1</b>      | <b>Introduction to 8085 Microprocessor</b><br>Functional Pin out, CPU Architecture, Register Organization, Reset Circuit, Clock Circuit, De- multiplexing of Address/Data bus, Generation of control signals, Addressing Modes, Instruction set and programming, Timing diagrams. | <b>9 Hrs.</b> |
| <b>Unit No: 2</b>      | <b>8085 Stack, Interrupts and Interfacing</b><br>Stack & Subroutines, Interrupts structure of 8085, Memory mapped I/O, I/O mapped I/O, Memory interfacing with 8085, Study of 8255 PPI : Block diagram, I/O and BSR Mode and Interfacing to 8085                                  | <b>7 Hrs.</b> |
| <b>Unit No: 3</b>      | <b>Introduction to MCS51</b><br>Introduction to MCS51 Family, Functional Pin out diagram, Architecture, Register Organization, Memory Organization, Reset Circuit, Machine Cycle, Oscillator Circuit, Addressing Modes, Instruction Set, Assembly Language Programming.           | <b>9 Hrs.</b> |
| <b>Unit No: 4</b>      | <b>Hardware overview</b><br>Input / Output Ports, Interrupts, Timers/Counters, Serial Communication (Mode-1), (Structure, Related S.F.R and Programming).                                                                                                                         | <b>7 Hrs.</b> |



|                   |                                                                                                                                                                          |               |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| <b>Unit No: 5</b> | <b>Interfacing &amp; Assembly Language Programming with 8051 Microcontroller</b><br>Keyboard, Seven Segment display, ADC, DAC, stepper motor .                           | <b>6 Hrs.</b> |
| <b>Unit No: 6</b> | <b>Embedded 'C' Programming for 8051</b><br>Data types, Programs on Arithmetic & Logical operations, Input / Output Ports, Timer/Counter, Serial communication, ADC, LCD | <b>6 Hrs.</b> |

**Text Books:**

|    |                                                                                                                                                                          |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | Ramesh Gaonkar " Microprocessor Architecture Programming and Applications with the 8085", , 5 <sup>th</sup> Edition , Penram International Publication                   |
| 2  | Muhammad Ali Mazidi, Janice Gillispie, Rolin D. McKinlay "The 8051 Microcontroller & Embedded Systems Using Assemble and C", 2 <sup>nd</sup> Edition, Pearson Education, |
| 3. | Kenneth Ayala, "The 8051 Microcontroller" , 3 <sup>rd</sup> Edition , Cengage Learning India Private Limited                                                             |

**Reference Books:**

|   |                                                                                                    |
|---|----------------------------------------------------------------------------------------------------|
| 1 | Douglas V Hall, "Microprocessors and Digital Systems"                                              |
| 2 | I.Scott Mackenzie, Raphael C.W.Phan, "The 8051 Microcontroller" , 4 <sup>th</sup> Edition, Pearson |
| 3 | Ajay V. Deshmukh, "Microcontrollers [Theory and Applications]", Tata McGraw Hill Publication.      |

**List of Experiments (Minimum 10 experiment):**

|   |                                            |
|---|--------------------------------------------|
| 1 | Arithmetic & Logical operations using 8085 |
| 2 | Data transfer & Exchange using 8085        |



|    |                                                           |
|----|-----------------------------------------------------------|
| 3  | Data conversions using 8085                               |
| 4  | Interrupt's Programming for 8085                          |
| 5  | Arithmetic & Logical operations using 8051                |
| 6  | Ascending/ Descending order sorting using 8051            |
| 7  | Interface ADC using 8051                                  |
| 8  | Interface DAC using 8051                                  |
| 9  | Interface Stepper motor using 8051                        |
| 10 | Use of Timer & counter operation in 8051 using Embedded C |
| 11 | Serial Communication with 8051 using Embedded C           |
| 12 | Interface LCD to 8051 using Embedded C                    |

**Note:**

**Guidelines to paper setter:**

In theory ESE examination of 70 marks following points should be considered,

Q.1 MCQ's based on complete syllabus. (14 Marks)

Q.2 Based on unit no 1, 2, 3 (Carries 14 marks)

Q.3 Based on unit no 1, 2, 3 (Carries 14 marks)

Q.4 Based on unit no 4, 5, 6 (Carries 14 marks)

Q.5 Based on unit no 4, 5, 6 (Carries 14 marks)



SHIVAJI UNIVERSITY, KOLHAPUR

ELECTRONICS AND TELECOMMUNICATION ENGINEERING

SUBJECT NAME: ANTENNA AND WAVE PROPAGATION

Course Details

|                                        |                                                                                          |
|----------------------------------------|------------------------------------------------------------------------------------------|
| Class                                  | T. Y. B. Tech. Sem - VI                                                                  |
| Course Code and Course Title           | PCC-ETC604: Antenna and Wave Propagation                                                 |
| Prerequisites                          | Basics of Electromagnetic theory, Maxwell's equations and concepts of transmission lines |
| Teaching scheme : Lectures + Practical | 4 Hrs. + 2 Hrs.                                                                          |
| Credits                                | 4 + 1                                                                                    |
| Evaluation Scheme ESE + CIE for Theory | 70 (ESE) + 30 (CIE)                                                                      |

|                           |                                            |
|---------------------------|--------------------------------------------|
| Teaching scheme           | Examination scheme                         |
| Lectures : 4Hrs. / Week   | Theory : 100 Marks,<br>70 (ESE) + 30 (CIE) |
| Practical : 2 Hrs. / Week | TW: 25 Marks<br>POE:50 Marks               |

|                           |                                                                        |
|---------------------------|------------------------------------------------------------------------|
| <b>Course Objectives:</b> |                                                                        |
| The course aims to :      |                                                                        |
| 1                         | Basic parameters of antennas and their principle of operation          |
| 2                         | Different Antenna types to know their applications in various domains. |
| 3                         | Different types of wave propagation Techniques                         |





| <b>Course Outcomes:</b>                                                  |                                                                                                                                             |
|--------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Upon successful completion of this course, the students will be able to: |                                                                                                                                             |
| 1                                                                        | Realize the importance of basics of antenna systems to differentiate the applicability of each type of antenna                              |
| 2                                                                        | Analyze the utilization of Antenna systems in wide areas like wireless communication, fixed line communication, computer communication etc. |
| 3                                                                        | Discuss radio wave propagation                                                                                                              |

| <b>Course Contents</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |               |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| <b>Unit No: 1</b>      | <p><b>Fundamentals of Antenna</b></p> <p>Basic Antenna parameters, pattern , beam area, radiation intensity, beam efficiency, directivity, gain and resolution, antenna aperture, effective height, radio communication link, field from oscillating dipole, field zones. Linear, Elliptical and Circular polarization, Front to back ratio, Antenna impedance.</p>                                                                                                                                                                        | <b>7 Hrs.</b> |
| <b>Unit No: 2</b>      | <p><b>Antenna array and Frequency independent antenna</b></p> <p>Array of two isotropic point sources, non-isotropic but similar point source and the principle of pattern multiplication, examples of pattern synthesis by pattern multiplication, non-isotropic and dissimilar point sources, linear array of isotropic point source of equal amplitude and spacing. Broadband basics, frequency-independent concept: Rumsey's principle, the frequency independent planner log-spiral antenna, frequency independent conical-spiral</p> | <b>9 Hrs.</b> |



|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                        |               |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
|                   | antenna, the log periodic antenna, the composite yagi-uda corner-log-periodic array.                                                                                                                                                                                                                                                                                                                                                                   |               |
| <b>Unit No: 3</b> | <p><b>Antenna Measurement and Microstrip Antenna:</b></p> <p>Antenna measurement: Antenna ranges, Radiation pattern, Gain measurements, Directivity measurements</p> <p>Microstrip Antenna: Introduction, Basic characteristics, Feeding methods, Rectangular patch, Circular patch</p>                                                                                                                                                                | <b>6 Hrs.</b> |
| <b>Unit No: 4</b> | <p><b>Ground Wave Propagation</b></p> <p>Potential Functions and the Electromagnetic Field, Potential Functions for sinusoidal oscillations, Plane earth reflection, space wave and the surface wave, elevated dipole antennas above a plane earth, wave tilt of the surface wave, spherical earth propagation, troposphere wave</p>                                                                                                                   | <b>8 Hrs.</b> |
| <b>Unit No: 5</b> | <p><b>Ionospheric Wave Propagation</b></p> <p>The ionosphere, effective permittivity and conductivity of an ionized gas, reflection and refraction of the waves by the ionosphere, regular and irregular variations of ionosphere, attenuation factor, sky wave transmission calculations, effect of earth magnetic field, wave propagation in ionosphere, Faraday rotation and measurement of total electron content, other ionosphere phenomena.</p> | <b>8 Hrs.</b> |
| <b>Unit No: 6</b> | <p><b>Radar System:</b></p> <p>Fundamentals, RADAR performance factors, basic pulsed radar system, antennas and scanning, display methods, pulsed radar</p>                                                                                                                                                                                                                                                                                            | <b>6 Hrs.</b> |



|  |                                                                                                                                           |  |
|--|-------------------------------------------------------------------------------------------------------------------------------------------|--|
|  | systems, moving target indication, radar beacons, CW Doppler radar, frequency modulated CW radar, phase array radars, planar array radars |  |
|--|-------------------------------------------------------------------------------------------------------------------------------------------|--|

**Text Books:**

|   |                                                                                                             |
|---|-------------------------------------------------------------------------------------------------------------|
| 1 | John D Kraus, "Antenna for all Application", 3 <sup>rd</sup> edition, Tata McGraw Hill Publication          |
| 2 | Constantine A. Balanis, "Antenna Theory", 3 <sup>rd</sup> edition, Wiley Publication                        |
| 3 | Jordan and Balmain, "Electromagnetic Waves and Radiation Systems", 2 <sup>nd</sup> edition, PHI publication |
| 4 | Kennedy Davis, "Electronics Communication System", 5 <sup>th</sup> edition, Tata McGraw Hill Publication    |

**Reference Books:**

|   |                                                                                                    |
|---|----------------------------------------------------------------------------------------------------|
| 1 | G. S. N. Raju, "Antennas and Wave Propagation", 4 <sup>th</sup> edition, Pearson publication       |
| 2 | K.D. Prasad, "Antennas and Wave Propagation", 3 <sup>rd</sup> edition, Satya prakashan publication |

**List of Experiments (Minimum 8 experiment):**

|   |                                                                                  |
|---|----------------------------------------------------------------------------------|
| 1 | Calculation of beam width, front to back ratio & gain of simple dipole antenna.. |
| 2 | Calculation of beam width, front to back ratio & gain of log periodic antenna    |
| 3 | Calculation of beam width, front to back ratio & gain of Yagi-Uda antenna.       |



|    |                                                                                                                |
|----|----------------------------------------------------------------------------------------------------------------|
| 4  | Calculation of beam width, front to back ratio & gain of Horn antenna                                          |
| 5  | Calculation of beam width, front to back ratio & gain of micro strip /patch antenna.                           |
| 6  | To determine effect of varying distance between transmitter & receiver on received power                       |
| 7  | Calculation of angle of reflection for varying angle of incidences                                             |
| 8  | Calculation of angle of refraction for varying angle of incidences                                             |
| 9  | Observe standing waves and measure the wavelength of microwave                                                 |
| 10 | Determination of velocity of object moving in RADAR range.                                                     |
| 11 | Measurement of time & frequency of RADAR using moving pendulum                                                 |
| 12 | Write a program to find radiation pattern of Broadside array antenna using MATLAB                              |
| 13 | Write a program to find radiation pattern of End fire array antenna using MATLAB                               |
| 14 | Write a program to compare radiation pattern of uniform linear array and non-uniform linear array using MATLAB |

**Note:**

**1) Guidelines to paper setter:**

In theory ESE examination of 70 marks following points should be considered,

Q.1 MCQ's based on complete syllabus. (14 Marks)

Q.2 Based on unit no 1, 2, 3 (Carries 14 marks)

Q.3 Based on unit no 1, 2, 3 (Carries 14 marks)

Q.4 Based on unit no 4, 5, 6 (Carries 14 marks)

Q.5 Based on unit no 4, 5, 6 (Carries 14 marks)

**2) 40% theory and 60% numerical and Design.**



**SHIVAJI UNIVERSITY, KOLHAPUR**  
**ELECTRONICS AND TELECOMMUNICATION ENGINEERING**

**ELECTRONIC CIRCUIT DESIGN - I**

**Course Details:**

|                                               |                                                                     |
|-----------------------------------------------|---------------------------------------------------------------------|
| <b>Class</b>                                  | S. Y. B. Tech. Sem-III                                              |
| <b>Course Code &amp; Course Title</b>         | PCC-ETC 301: Electronic Circuit Design - I                          |
| <b>Prerequisites</b>                          | Basic Circuit Law's, Semiconductor diode, Zener diode, BJT details. |
| <b>Teaching scheme: Lecture + Practical</b>   | 4 Hrs + 2 Hrs                                                       |
| <b>Credits</b>                                | 4 + 1                                                               |
| <b>Evaluation Scheme ESE + CIE for Theory</b> | 70 (ESE) + 30 (CIE)                                                 |

| <b>Teaching Scheme</b>         | <b>Examination Scheme</b>                               |
|--------------------------------|---------------------------------------------------------|
| <b>Lectures : 4 Hrs /week</b>  | <b>Theory : 100 Marks</b><br><b>70 (ESE) + 30 (CIE)</b> |
| <b>Practical : 2 Hrs /week</b> | <b>TW: 25 Marks</b><br><b>POE: 50 Marks</b>             |

**Course Objectives:**

|                     |                                                                                                                                                                          |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The course aims to: |                                                                                                                                                                          |
| 1                   | Provide an introduction and basic understanding of Semiconductor Devices viz. diodes and BJT, JFET.                                                                      |
| 2                   | Provide basic analog electronic circuit design techniques using diodes and bipolar junction transistors and to develop analytical skills.                                |
| 3                   | Develop student ability to apply basic engineering sciences to understand the operation & analysis of electronic circuits using diodes and bipolar junction transistors. |



|   |                                                                |
|---|----------------------------------------------------------------|
| 4 | Design electronic circuits to meet the desired specifications. |
|---|----------------------------------------------------------------|

**Course Outcomes:**

Upon successful completion of this course, the student will be able to:

|   |                                                                                                             |
|---|-------------------------------------------------------------------------------------------------------------|
| 1 | Analyze and design electronic circuits such as rectifiers & unregulated power supply.                       |
| 2 | Analyze and design electronic circuits such as regulated power supply.                                      |
| 3 | Analyze & Design of BJT & FET Biasing.                                                                      |
| 4 | Explain the hybrid model of transistor and analyze the transistor amplifier (CE, CB, CC) using h-parameters |
| 5 | Analysis of CE Amplifier for low frequency & High frequency response for sinusoidal & square wave input.    |
| 6 | Analyze & Design LPF, HPF, Clipper, Clampers, Multipliers                                                   |

**Course Contents**

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |              |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| <b>Unit No: 1</b> | <b>Wave Shaping Circuits</b><br>Low pass & high pass RC circuits (analysis for step, square input), High pass RC circuit as a differentiator, Sag/Tilt calculation, Low pass RC circuit as integrator (Step & Square Input), Clipping circuits: Single Level & Double level Clipping, Transfer characteristics, Clamping circuits: Classification, clamping operations, Clamping circuit theorem, practical clamping circuits, voltage multipliers (Doubler & Tripler). | <b>8 Hrs</b> |
| <b>Unit No: 2</b> | <b>Unregulated Power Supplies</b><br>Rectifiers: Half wave, full wave: center tap and bridge type, analysis for different parameters: PIV, TUF, efficiency, ripple factor, regulation, form factor etc. Filters: Need of filters, Types: capacitor, inductor, LC, CLC, and Analysis for ripple factor. Design of                                                                                                                                                        | <b>8 Hrs</b> |



|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |              |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
|                   | unregulated power supply with filter using full wave rectifier.                                                                                                                                                                                                                                                                                                                                                                                             |              |
| <b>Unit No: 3</b> | <b>Voltage Regulators</b><br>Need of voltage regulator, Stabilization factors, Analysis & Design of Shunt regulator (using Zener diode & BJT), emitter follower regulator, series pass voltage regulator (using BJT), Pre- regulator & Overload protection circuit.                                                                                                                                                                                         | <b>8 Hrs</b> |
| <b>Unit No: 4</b> | <b>BJT &amp; FET Biasing</b><br>Introduction to BJT, Need of Biasing, Stability factor, Biasing of CE Configuration- Fixed Bias, Collector to Base Bias & Voltage Divider Bias (Analysis & Design), FET: Introduction to JFET, Biasing of CS configuration- Fixed Bias, Self Bias (Analysis of the same).                                                                                                                                                   | <b>8 Hrs</b> |
| <b>Unit No: 5</b> | <b>Voltage Amplifiers</b><br>H-Parameters, Hybrid model for transistor (CE, CB& CC Configuration), CE Amplifier equations for Voltage Gain, Current gain, Input resistance & Output resistance taking Rs of source into account.                                                                                                                                                                                                                            | <b>8 Hrs</b> |
| <b>Unit No: 6</b> | <b>Frequency Response of Single Stage RC Coupled Amplifier</b><br>Low frequency response: Effect of Coupling capacitor(CC) & Emitter bypass capacitor(CE ), High frequency response: Hybrid $\pi$ model , Derivation for CE short circuit & resistive current gain, $\beta$ cutoff, $\alpha$ cutoff frequency, amplifier high freq. response to square wave ,gain bandwidth product, (Numerical are expected). Design of single stage RC coupled amplifier. | <b>8 Hrs</b> |

**Text Books:**

|   |                                                                                               |
|---|-----------------------------------------------------------------------------------------------|
| 1 | Allen Mottershed, "Electronic Devices & Circuits", Prentice- Hall India                       |
| 2 | Salivahanan, N Sureshkumar, "Electronic Devices & Circuits", Tata McGraw Hill Publication     |
| 3 | Robert L. Boylsted, Louis Nashelsky, "Electronic Devices & Circuit Theory", Pearson Education |
| 4 | J. Millman & C.Halkias, "Electronic Devices & Circuits", Tata McGraw Hill Publication         |



**Reference Books:**

|   |                                                                                                |
|---|------------------------------------------------------------------------------------------------|
| 1 | David A. Bell, "Electronic Devices & Circuits", Oxford University                              |
| 2 | Millman Taub, "Pulse Digital And Switching Circuits", Tata McGraw Hill 2 <sup>nd</sup> edition |
| 3 | R. S. Sedha, "A Text Book Of Applied Electronics", S. Chand                                    |

**List of Experiments (Minimum 10 experiment):**

|    |                                                                                                                                           |
|----|-------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | Design and study the performance of Low pass filter:<br>a. Frequency response for sinusoidal input<br>b. Integrator for Square wave input |
| 2  | Design and study of High pass filter:<br>a. Frequency response for sinusoidal input<br>b. Differentiator for Square wave input            |
| 3  | Study of clipper circuits (Series/ Shunt).                                                                                                |
| 4  | Study of clamping circuits (Positive & Negative Type).                                                                                    |
| 5  | Design and Study of full wave rectifier with capacitive filter.                                                                           |
| 6  | Design and Study of full wave rectifier with inductive filter.                                                                            |
| 7  | Design and Study of Zener shunt regulator                                                                                                 |
| 8  | Design and Study of transistorized shunt regulator                                                                                        |
| 9  | Design and Study of emitter follower regulator                                                                                            |
| 10 | Design and Study of series pass voltage regulator                                                                                         |
| 11 | Determination of H-parameter for CE configuration using input and output Characteristics.                                                 |
| 12 | Simulation of FWR using C-filter                                                                                                          |
| 13 | Design and Study of Single stage RC-Coupled Amplifier                                                                                     |
| 14 | Simulation of Single stage RC-Coupled Amplifier (eSim Software)                                                                           |

**Note:**

**1) Guidelines to paper setter:**

**In theory ESE examination of 70 marks following points should be considered,**

**Q.1 MCQ's Based on complete syllabus. (14 Marks)**





**SHIVAJI UNIVERSITY, KOLHAPUR**  
**ELECTRONICS & TELECOMMUNICATION ENGINEERING**

**PROGRAMMING LAB-I**

**Course Details:**

|                                               |                                |
|-----------------------------------------------|--------------------------------|
| <b>Class</b>                                  | S.Y. B. Tech. Sem-III          |
| <b>Course Code &amp; Course Title</b>         | PCC-ETC 305: PROGRAMMING LAB-I |
| <b>Prerequisites</b>                          | Computer fundamentals          |
| <b>Teaching scheme: Lecture + Practical</b>   | 2 Hrs + 2 Hrs                  |
| <b>Credits</b>                                | 2+1                            |
| <b>Evaluation Scheme ESE + CIE for Theory</b> | NA                             |

| Teaching Scheme         | Examination Scheme            |
|-------------------------|-------------------------------|
| Lectures: 2 Hrs /week   | Theory : NA                   |
| Practical : 2 Hrs /week | TW: 25 Marks<br>POE: 50 Marks |

| <b>Course Objectives:</b> |                                                                                                                        |
|---------------------------|------------------------------------------------------------------------------------------------------------------------|
| The course aims to:       |                                                                                                                        |
| 1                         | Design the flowchart and algorithms for procedure oriented programs.                                                   |
| 2                         | Develop programming skills using the fundamentals and basics of C Language, control structures and looping statements. |
| 3                         | Enable the effective usage of arrays, structures, functions, pointers and to implement the memory management concepts. |
| 4                         | Design and implement programs using files handling and user defined types.                                             |
| 5                         | Understand the concept of strings and relevant operations on it.                                                       |
| 6                         | Understand the file and relevant operations on it.                                                                     |



| <b>Course Outcomes:</b>                   |                                                                                                      |
|-------------------------------------------|------------------------------------------------------------------------------------------------------|
| Upon successful completion of this course |                                                                                                      |
| 1                                         | Student will be able to understand the basic concepts of procedure oriented programming language.    |
| 2                                         | Student will be able to implement the control statements, looping statements and functions concepts. |
| 3                                         | Student will be able to design programs using user defined functions and data type.                  |
| 4                                         | Student will be able to design & apply the skills for solving the engineering problems.              |
| 5                                         | Students will be able to understand the concept string & relevant operations on it.                  |
| 6                                         | Students will be able to understand the concept of file & relevant operations on it.                 |

| <b>Course Contents</b> |                                                                                                                                                                                                                                                                                                                                                   |              |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| <b>Unit No: 1</b>      | <b>Programming Fundamentals</b><br>Flow chart, Algorithm, Standard notations, Selection Procedure, Loops, Sub Algorithms, Compilers, Interpreters, The Library and Linking, concept of Data Storage (Memory Concept)                                                                                                                              | <b>4 Hrs</b> |
| <b>Unit No: 2</b>      | <b>Introduction to C</b><br>Introduction to Constants, Variables, Data Types, Operators, Expressions, Structure of C Programming, Identifiers, Decision & Loop control statements                                                                                                                                                                 | <b>5 Hrs</b> |
| <b>Unit No: 3</b>      | <b>Arrays and Structures</b><br>Arrays::Introduction to 1-Dimensional arrays, Declaration and Initialization of 1-Dimensional arrays, Declaration and Initialization of 2-Dimensional arrays, Declaration and Initialization of Multi-Dimensional arrays. Structures-Declaring of Structures, Accessing Structure elements, arrays of structures. | <b>4 Hrs</b> |



|                   |                                                                                                                                                                                                                                                                                                                                                                                                          |              |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| <b>Unit No: 4</b> | <b>Functions and Pointers</b><br>Introduction of functions, Need for functions,, Multifunction Programming, Elements of functions, Definition and declaration of functions, return values and their types, function call, arguments, return value, nesting and recursion<br>Pointers- Introduction to pointers, pointer variables, Declaration and initialization of pointer variable, accessing pointer | <b>5 Hrs</b> |
| <b>Unit No: 5</b> | <b>Strings</b><br>Declaration and Initialization of string, Reading from Terminal, Writing to screen, Standard library string functions                                                                                                                                                                                                                                                                  | <b>3 Hrs</b> |
| <b>Unit No: 6</b> | <b>File handling</b><br>File operation, counting character tabs, spaces, file copy program, file opening modes, text file- binary file, Real time case study.                                                                                                                                                                                                                                            | <b>3 Hrs</b> |

**Text Books:**

|   |                                                                                     |
|---|-------------------------------------------------------------------------------------|
| 1 | Yashawant Kanetkar, "Let Us C", XIII <sup>th</sup> Edition BPB Publications         |
| 2 | E Balagurusamy, "Programming in ANSI C", V <sup>th</sup> edition, Tata Mc Graw Hill |

**Reference Books:**

|   |                                                                                                                        |
|---|------------------------------------------------------------------------------------------------------------------------|
| 1 | Brian W. Kernighan, Dennis M. Ritchi , "The C Programming Language", II <sup>nd</sup> edition, Prentice Hall of India. |
|---|------------------------------------------------------------------------------------------------------------------------|

**List of Experiments (Minimum 10 + Mini project):**

|   |                                                   |
|---|---------------------------------------------------|
| 1 | Develop Program using decision control statements |
| 2 | Develop Program using control statements          |
| 3 | Develop Program using loop control statements     |
| 4 | Develop Program using functions                   |
| 5 | Develop Program using pointers                    |



|    |                                                 |
|----|-------------------------------------------------|
| 6  | Develop Program using array                     |
| 7  | Develop Program using two dimensional arrays    |
| 8  | Develop Program using structures                |
| 9  | Develop Program using dynamic memory allocation |
| 10 | Develop Program using strings                   |
| 11 | Develop Program using any sorting technique     |
| 12 | Develop Program using file handling.            |
| 13 | Mini project                                    |



**SHIVAJI UNIVERSITY, KOLHAPUR**  
**ELECTRONICS AND TELECOMMUNICATION ENGINEERING**  
**ELECTRONIC CIRCUIT DESIGN – II**

**Course Details:**

|                                               |                                                        |
|-----------------------------------------------|--------------------------------------------------------|
| <b>Class</b>                                  | S. Y. B. Tech. Sem-IV                                  |
| <b>Course Code &amp; Course Title</b>         | PCC-ETC 401: Electronic Circuit Design - II            |
| <b>Prerequisites</b>                          | Basic Circuit Law's, Single Stage RC coupled amplifier |
| <b>Teaching scheme: Lecture + Practical</b>   | 4 Hrs + 2 Hrs                                          |
| <b>Credits</b>                                | 4 + 1                                                  |
| <b>Evaluation Scheme ESE + CIE for Theory</b> | 70 (ESE) + 30 (CIE)                                    |

| Teaching Scheme          | Examination Scheme                       |
|--------------------------|------------------------------------------|
| Lectures : 04 Hrs /week  | Theory : 100 Marks<br>70 (ESE) + 30(CIE) |
| Practical : 02 Hrs /week | TW: 25 Marks<br>POE: 50 Marks            |

**Course Objectives:**

The course aims to:

|   |                                                                                                                                                                       |
|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Provide an introduction and basic understanding of feedback amplifiers, power amplifiers, oscillators, Multivibrators                                                 |
| 2 | Develop student ability to apply basic engineering sciences to understand the operation & analysis of electronic circuits using diodes, bipolar junction transistors. |
| 3 | Provide analog electronic circuit design techniques using diodes, bipolar junction transistors and to develop analytical skills.                                      |
| 4 | Design electronic circuits to meet desired specifications.                                                                                                            |



|                   |                                                                                                                                                                                                                                                                                                                                                          |              |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| <b>Unit No: 4</b> | <b>Oscillators</b><br>Barkhausen's criteria, Frequency and amplitude stability, Classification, RC oscillators: analysis & design of RC phase shift Oscillator & Wein bridge oscillator. LC oscillators: analysis & design of Colpitt's & Hartley's oscillators, Crystal oscillator.                                                                     | <b>9 Hrs</b> |
| <b>Unit No: 5</b> | <b>Multivibrators</b><br>Transistor as a switch, Different transistor switching parameters, overdrive factor, classification of multivibrators, Analysis and design of collector coupled: Astable, Bistable, Monostable, fixed bias and self-bias binary Multivibrator, Triggering methods for Multivibrators, Schmitt trigger / Emitter Coupled Binary. | <b>9 Hrs</b> |
| <b>Unit No: 6</b> | <b>IC voltage regulator</b><br>Fixed voltage regulators (78XX, 79XX), Adjustable voltage regulators (LM317, LM337, LM723).                                                                                                                                                                                                                               | <b>5 Hrs</b> |

**Text Books:**

|   |                                                                                             |
|---|---------------------------------------------------------------------------------------------|
| 1 | N.C. Goyal & R.K. Khetan, "A Monograph on Electronics Design Principles", Khanna Publishers |
| 2 | Allen Mottershed, "Electronic Devices & Circuits", Prentice- Hall India                     |
| 3 | G. K. Mittal, "Electronic Devices & Circuits"                                               |
| 4 | Salivahanan, N Sureshkumar, "Electronic Devices & Circuits", Tata McGraw Hill Publication   |

**Reference Books:**

|   |                                                                                               |
|---|-----------------------------------------------------------------------------------------------|
| 1 | David A. Bell, "Electronic Devices & Circuits", Oxford University                             |
| 2 | Robert L. Boylsted, Louis Nashelsky, "Electronic Devices & Circuit Theory", Pearson Education |



**List of Experiments (Minimum 08 experiment + 01 Mini-project compulsory):**

|    |                                                                              |
|----|------------------------------------------------------------------------------|
| 1  | Design and study of frequency response of direct coupled amplifier.          |
| 2  | Design and study of frequency response of two stage RC coupled amplifier.    |
| 3  | Design and study of frequency response of voltage series feedback amplifier. |
| 4  | Design and study of transformer coupled class A amplifier.                   |
| 5  | Design and study of RC phase shift oscillator using BJT                      |
| 6  | Design and study of wein bridge oscillator using BJT                         |
| 7  | Design and study of colpitts oscillator using BJT                            |
| 8  | Design and study of Hartley oscillator using BJT                             |
| 9  | Design and study of Astable multivibrator                                    |
| 10 | Design and study of Monostable multivibrator using BJT                       |
| 11 | Design and study of Bistable multivibrator using BJT                         |
| 12 | Design and study of Schmitt trigger using BJT                                |
| 13 | Design and study of voltage regulator using LM317                            |
| 14 | Design and study of voltage regulator using IC723                            |
| 15 | Simulation of Oscillator (eSim Software)                                     |
| 16 | Simulation of Multivibrator (eSim Software)                                  |
| 17 | Mini-project based on above syllabus. (Maximum two students in each group)   |

**Note:**

**Guidelines to paper setter:**

**In theory ESE examination of 70 marks following points should be considered,**

**Q.1. MCQ's Based on complete syllabus. (14 Marks)**

**Q.2 Based on unit no 1, 2, 3 (Carries 14 marks)**

**Q. 3 Based on unit no 1, 2, 3 (Carries 14 marks)**

**Q.4 Based on unit no 4, 5, 6 (Carries 14 marks)**

**Q. 5 Based on unit no 4, 5, 6 (Carries 14 marks)**



**SHIVAJI UNIVERSITY, KOLHAPUR**  
**ELECTRONICS AND TELECOMMUNICATION ENGINEERING**  
**DIGITAL COMMUNICATION**

**Course Details:**

|                                               |                                           |
|-----------------------------------------------|-------------------------------------------|
| <b>Class</b>                                  | <b>S. Y. B. Tech. Sem-IV</b>              |
| <b>Course Code &amp; Course Title</b>         | <b>PCC-ETC 404: Digital Communication</b> |
| <b>Prerequisites</b>                          | <b>Analog communication</b>               |
| <b>Teaching scheme: Lecture/Practical</b>     | <b>3 Hrs + 2 Hrs</b>                      |
| <b>Credits</b>                                | <b>3 + 1</b>                              |
| <b>Evaluation Scheme ESE + CIE for Theory</b> | <b>70 (ESE) + 30 (CIE)</b>                |

| <b>Teaching Scheme</b>          | <b>Examination Scheme</b>                               |
|---------------------------------|---------------------------------------------------------|
| <b>Lectures : 04 Hrs /week</b>  | <b>Theory : 100 Marks</b><br><b>70 (ESE) + 30 (CIE)</b> |
| <b>Practical : 02 Hrs /week</b> | <b>TW: 25 Marks</b>                                     |

**Course Objectives:**

The course aims to:

|   |                                                                                                      |
|---|------------------------------------------------------------------------------------------------------|
| 1 | Study the random signal theory and concept of information theory                                     |
| 2 | Elaborate the different source coding techniques with the help of their block diagrams and function. |
| 3 | Explain the different digital modulation techniques.                                                 |
| 4 | Describe the baseband transmission and reception system.                                             |

**Course Outcomes:**

Upon successful completion of this course, the student will be able to:

|   |                                                            |
|---|------------------------------------------------------------|
| 1 | Describe the probability of random signal                  |
| 2 | Solve the problem based on information theory              |
| 3 | Classify different source coding & line coding techniques. |
| 4 | Compare different digital modulation technique             |





| Course Contents   |                                                                                                                                                                                                                                                         |              |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| <b>Unit No: 1</b> | <b>Probability Theory</b><br>Introduction to digital communication system, probability and sample space, Baye's rule, Joint & conditional Probability, PDF & CDF, Statistical averages                                                                  | <b>6 Hrs</b> |
| <b>Unit No: 2</b> | <b>Information Theory</b><br>Measure of Information, Entropy, Information Rate, Shannon's encoding theorem, communication channels –Discrete & Continuous, Shannon-Hartley theorem, Entropy Coding: Huffman's coding & Shannon-Fanno Coding techniques. | <b>7 Hrs</b> |
| <b>Unit No: 3</b> | <b>Source Coding</b><br>Quantization–Uniform, Non-Uniform. Study of PCM, DM, ADM DPCM, ADPCM.                                                                                                                                                           | <b>5 Hrs</b> |
| <b>Unit No: 4</b> | <b>Digital Carrier Line Encoding</b><br>Line codes: Unipolar, Bipolar, NRZ, RZ, RZ-AMI, Manchester Baseband pulse Shaping, Duo binary                                                                                                                   | <b>5 Hrs</b> |
| <b>Unit No: 5</b> | <b>Band Pass Modulation Techniques</b><br>ASK, FSK, PSK, DPSK, QPSK, & QAM. Coherent, Non- Coherent detection. Introduction to Spread Spectrum techniques: DSSS, FHSS.                                                                                  | <b>7 Hrs</b> |
| <b>Unit No: 6</b> | <b>Baseband Transmission Of Digital Signals</b><br>M-ary Signaling, eye diagram, ISI, Scrambler, Unscramble. Optimum Receivers-Matched Filters, Correlation receivers, Optimum detection using ML criteria.                                             | <b>6 Hrs</b> |

**Text Books:**

|   |                                                                                       |
|---|---------------------------------------------------------------------------------------|
| 1 | K. Sam Shanmugam, "Digital & Analog Communication", John Wiley India..                |
| 2 | Simon Haykin, "Digital Communication", Wiley India.                                   |
| 3 | Singh & Sapre, "Communication Systems-Analog & Digital", II <sup>nd</sup> Edition TMH |



**Reference Books:**

|   |                                                                                                 |
|---|-------------------------------------------------------------------------------------------------|
| 1 | Wayne Tomasi, "Electronic Communications Systems", V <sup>th</sup> edition, Pearson publication |
| 2 | John Proakis, " Digital Communication", IV <sup>th</sup> Edition, TMH                           |

**List of Experiments (Minimum 8 Experiments):**

|     |                                                                  |
|-----|------------------------------------------------------------------|
| 1.  | Study of Pulse Code Modulation                                   |
| 2.  | Study of Delta Modulation                                        |
| 3.  | Study of Adaptive Delta Modulation                               |
| 4.  | Study of Data Formats                                            |
| 5.  | Study of Amplitude Shift Keying                                  |
| 6.  | Study of Frequency Shift Keying                                  |
| 7.  | Study of Phase Shift Keying                                      |
| 8.  | Study of Quadrature Phase Shift Keying                           |
| 9.  | Study of Any Modulation Technique using <b>MATLAB/SCILAB</b>     |
| 10. | Study of CDF & PDF for Random signals using <b>MATLAB/SCILAB</b> |
| 11. | Study of Standard Random Variables Density Distribution Function |

**Note:**

**Guidelines to paper setter:**

**In theory ESE examination of 70 marks following points should be considered,**

**Q.1. MCQ's Based on complete syllabus. (14 Marks)**

**Q.2 Based on unit no 1, 2, 3 (Carries 14 marks)**

**Q. 3 Based on unit no 1, 2, 3 (Carries 14 marks)**

**Q.4 Based on unit no 4, 5, 6 (Carries 14 marks)**

**Q. 5 Based on unit no 4, 5, 6 (Carries 14 marks)**



**SHIVAJI UNIVERSITY, KOLHAPUR**  
**ELECTRONICS & TELECOMMUNICATION ENGINEERING**  
**PROGRAMMING LAB-II**

**Course Details:**

|                                               |                                 |
|-----------------------------------------------|---------------------------------|
| <b>Class</b>                                  | S. Y. B. Tech. Sem-IV           |
| <b>Course Code &amp; Course Title</b>         | PCC-ETC 406: PROGRAMMING LAB-II |
| <b>Prerequisites</b>                          | Computer fundamentals           |
| <b>Teaching scheme: Lecture + Practical</b>   | 2 Hrs + 2 Hrs                   |
| <b>Credits</b>                                | 2+1                             |
| <b>Evaluation Scheme ESE + CIE for Theory</b> | NA                              |

| Teaching Scheme     | Examination Scheme            |
|---------------------|-------------------------------|
| Lectures: 2 /week   | Theory : NA                   |
| Practical : 2 /week | TW: 25 Marks<br>POE: 50 Marks |

**Course Objectives:**

The course aims to:

|   |                                                                                           |
|---|-------------------------------------------------------------------------------------------|
| 1 | Understand features of object-oriented programming and design C++ classes                 |
| 2 | Understand overloading of functions and operators in C++.                                 |
| 3 | Implement copy constructors and class member functions.                                   |
| 4 | Understand the concept of inheritance, virtual functions, dynamic binding & polymorphism. |
| 5 | Design inheritance for code reuse in C++.                                                 |
| 6 | Design and implement generic classes with C++ templates and exception handling.           |



| <b>Course Outcomes:</b>                                                 |                                                                                                    |
|-------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| Upon successful completion of this course, the student will be able to: |                                                                                                    |
| 1                                                                       | Understand the basic concepts of procedure oriented programming language.                          |
| 2                                                                       | Identify the function and operator overloading concepts.                                           |
| 3                                                                       | Understand and implement the concept of inheritance, template and exception handling applications. |
| 4                                                                       | Identify the concept of inheritance, virtual functions, dynamic binding & polymorphism.            |
| 5                                                                       | Identify the types of inheritance & its design for code reuse in C++.                              |
| 6                                                                       | Design and implement generic classes with C++ templates and exception handling.                    |

| <b>Course Contents</b> |                                                                                                                                                                                                                                                                                                                                                           |              |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| <b>Unit No: 1</b>      | <b>Introduction To Object Oriented Programming</b><br>Difference between procedure oriented programming and object oriented programming, basic concepts and features of object oriented programming, structures and classes, declaration of class, member functions, defining the object of class, accessing member of class, and array of class objects. | <b>4 Hrs</b> |
| <b>Unit No: 2</b>      | <b>Overloading</b><br>Function overloading, assignment operator overloading, binary operator overloading, unary operator overloading.                                                                                                                                                                                                                     | <b>4 Hrs</b> |
| <b>Unit No: 3</b>      | <b>Constructors And Destructors</b><br>Constructors- copy constructor, default constructors, destructors, inline member function, friend function, dynamic memory allocation.                                                                                                                                                                             | <b>4 Hrs</b> |
| <b>Unit No: 4</b>      | <b>Polymorphism</b><br>Polymorphism, early binding, polymorphism with pointers, virtual functions, late binding, pure virtual functions, abstract base classes, constructor under inheritance, destructor under inheritance, virtual destructors, virtual base classes.                                                                                   | <b>4 Hrs</b> |
| <b>Unit No: 5</b>      | <b>Inheritance</b><br>Introduction, Single Inheritance, Types Of Base Classes- Direct, Indirect,                                                                                                                                                                                                                                                          | <b>4 Hrs</b> |



|                   |                                                                                                  |              |
|-------------------|--------------------------------------------------------------------------------------------------|--------------|
|                   | Array Of Class Object And Single Inheritance, Multiple Inheritances.                             |              |
| <b>Unit No: 6</b> | <b>Template And Exception Handling</b><br>Function template, class template, exception handling. | <b>4 Hrs</b> |

**Text Books:**

|   |                                                                                     |
|---|-------------------------------------------------------------------------------------|
| 1 | D Ravichandran, "Programming With C++", II <sup>nd</sup> edition, Tata Mc Grow Hill |
| 2 | E Balagurusamy, "Object Oriented Programming With C++", Mc Grow Hill                |

**Reference Books:**

|   |                                                                                                                         |
|---|-------------------------------------------------------------------------------------------------------------------------|
| 1 | Brian W. Kernighan, Dennis M. Ritchi, "The C++ Programming Language", II <sup>nd</sup> edition, Prentice Hall of India. |
|---|-------------------------------------------------------------------------------------------------------------------------|

**List of Experiments (Minimum 10 + Mini project):**

|   |                                                                                                                                                                                                              |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Develop a Program for implementation of array<br>a. One-dimensional array<br>b. Multi-dimensional array                                                                                                      |
| 2 | Develop a Program for implementation of classes and Objects.                                                                                                                                                 |
| 3 | Develop a Program for implementation of types of constructor<br>a. Default constructor<br>b. Parameterized constructor<br>c. Copy constructor                                                                |
| 4 | Develop a Program for implementation of polymorphism                                                                                                                                                         |
| 5 | Develop a Program for implementation of Friend Functions in Class                                                                                                                                            |
| 6 | Develop a Program for implementation of types of inheritance<br>a. Single level Inheritance<br>b. Multi-level Inheritance<br>c. Multiple Inheritance<br>d. Hybrid Inheritance<br>e. Hierarchical inheritance |



|    |                                                                             |
|----|-----------------------------------------------------------------------------|
| 7  | Develop an Object oriented Program to Insert the Number in an Array         |
| 8  | Develop an Object oriented program to Delete the Number in an Array         |
| 9  | Develop an Object oriented program on Bubble Sort                           |
| 10 | Develop an Object oriented program to Perform Linear or binary search       |
| 11 | Develop an Object oriented program to Insert and delete a Node in Link List |
| 12 | Develop an Object oriented program to implement stack using linked list.    |
| 13 | Mini project.                                                               |



VISIT



Dr. J. J. Magdum Trust's (No. E/902)

**Dr. J. J. Magdum College of Engineering, Jaysingpur**  
**Department of Electronics and Telecommunication Engineering**

Date: - 24/04/2023

To,  
The Head,  
Durdarshan Kendra,  
Pune.


Sub: Thanking letter.

Respected Sir/Madam,

We, on behalf of Electronics and Telecommunication Department of our college, hereby express our sincere, thanks for industrial visit to **Durdarshan Kendra, Pune.** on Monday, 24<sup>th</sup> April 2023 for final year students . We expect same co-operation in future.  
The visit explored the wide scope of information and also cover PO-12.

Thanking you.


  
Prof. Mohite T.H.  
Industrial Visit Co-ordinator

  
Prof. Dr. S.R. Mahadik  
Subject Incharge

  
Prof. Kolap M.M  
H.O.D  
Etrx and E&TC. Engg. Dept.



Receipt Rs 8496 against 24 students  
Through NEFT.  
on dt. 24/4/23  
Visitation 24/4/23

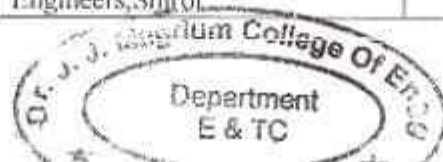
  
S.S. Wayhane  
9423015864  
रतुरा शिबपती  
ASSISTANT ENGINEER  
दुरदाशन केंद्र, पुणे.  
DURDARSHAN KENDRA, PUNE.



**Magdum College of Engineering, Jaysingpur**  
**Department of Electronics & Telecommunication Engineering**  
**B.TECH E&TC STUDENTS TRAINING DETAILS**

Academic Year-2022-23

| Roll No. | Student Name         | Name of company                          | Dates              | Duration(Days) |
|----------|----------------------|------------------------------------------|--------------------|----------------|
| 1        | Prasad Bahar         | Shree Datta Electrical Engineers, Shirol | 16-8-22to 30-8-22  | 15 days        |
| 2        | Bhagyashree Sonawale | Shree Datta Electrical Engineers, Shirol | 16-8-22to 30-8-22  | 15 days        |
| 3        | Pratik Patil         | Shree Datta Electrical Engineers, Shirol | 16-8-22to 30-8-22  | 15 days        |
| 4        | Nikita Sutar         | Shree Datta Electrical Engineers, Shirol | 16-8-22to 30-8-22  | 15 days        |
| 5        | Namrata Shetti       |                                          |                    |                |
| 6        | Snehal Koshti        | Shree Datta Electrical Engineers, Shirol | 16-8-22to 30-8-22  | 15 days        |
| 7        | Pradnya Khot         | Shree Datta Electrical Engineers, Shirol | 16-8-22to 30-8-22  | 15 days        |
| 8        | Saniya Latif         | Shree Datta Electrical Engineers, Shirol | 16-8-22to 30-8-22  | 15 days        |
| 9        | Saniya Nadaf         | Gustovalley Technovation                 | 10-8-22 to 10-9-22 | 30 days online |
| 10       | Ranjet Shinge        |                                          |                    |                |
| 11       | Vinesh Kamble        | Morya Industries, Sangli                 | 10-2-22 to 28-2-22 | 15 days        |
| 12       | Dhanappa Chikalakki  | Shree Datta Electrical Engineers, Shirol | 16-8-22to 30-8-22  | 15 days        |
| 13       | Komal Patil          | Shree Datta Electrical Engineers, Shirol | 16-8-22to 30-8-22  | 15 days        |
| 14       | Sneha Kate           | Morya Industries, Sangli                 | 10-1-22 to 24-1-22 | 15 days        |
| 15       | Omkar Vaidya         | Morya Industries, Sangli                 | 10-2-22 to 28-2-22 | 15 days        |
| 16       | Tejas Gurav          | Morya Industries, Sangli                 | 10-2-22 to 28-2-22 | 15 days        |
| 17       | Reena Made           |                                          |                    |                |
| 18       | Shweta Gaikwad       | Morya Industries, Sangli                 | 15-6-22 to 30-6-22 | 15 days        |
| 19       | Gayatri Patil        | Morya Industries, Sangli                 | 15-6-22 to 30-6-22 | 15 days        |
| 20       | Mohini Chavan        | Morya Industries, Sangli                 | 10-1-22 to 24-1-22 | 15 days        |
| 21       | Sanket Bhoi          | Shree Datta Electrical Engineers, Shirol | 16-8-22to 30-8-22  | 15 days        |
| 22       | Rohit Patil          | Morya Industries, Sangli                 | 10-2-22 to 28-2-22 | 15 days        |
| 23       | Chetan Patil         | Shree Datta Electrical Engineers, Shirol | 16-8-22to 30-8-22  | 15 days        |
| 24       | Aniket Patil Thorat  | Shree Datta Electrical Engineers, Shirol | 16-8-22to 30-8-22  | 15 days        |
| 25       | Akil Kacchi          |                                          |                    |                |
| 26       | Tanjeel Mujawar      |                                          |                    |                |
| 27       | Jayesh Jaihar        | Shree Datta Electrical Engineers, Shirol | 16-8-22to 30-8-22  | 15 days        |
| 28       | Sudhir Sale          | VVT Technologies, Nashik                 | 22-8-22 to 9-9-22  | 15 days        |
| 29       | Chaitanya Kore       | Fancy Textiles, Miraj                    | 1-7-21 to 15-7-21  | 15 days        |
| 30       | Abhishek Powar       | Shree Datta Electrical Engineers, Shirol | 16-8-22to 30-8-22  | 15 days        |







# Shree Datta Electricals Engineers & Contractors

Manufacturer & Repairs of all types of Distribution Transformer  
Bureau of Indian Standard (BIS), Bureau of Energy Efficiency (BEE) Govt. of India Approved

M.S.E.D.C.L, HESCOM, (Hubballi) Vendor Approved

ISO 9001 : 2015 Certified Company

M.C. No.12808, M.S. No.30651, Govt. Licensed Electrical Contractor

IS:1180, Part 1 : 2014



CM/L-7500154914

Date: - 01/09/2022

## Certificate of Training

This is to certify that, Mr. Prasad Papat Babar (PRN-2019087462) student of "Dr. J. J. Magdum College of Engineering, Jaysingpur" studying in Final year of "Electronics & Telecommunication Engineering" satisfactory completed his training in our factory for a period of 15 days from 16<sup>th</sup> Aug 2022 to 30<sup>th</sup> Aug 2022 under the guidance of Shri. Sayajirao R. Mane, proprietor of the company & Engineer-Govt. Project.

During this period, he obtained training & experience of the production process, winding, assembly, testing & maintenance of distribution transformer.

We wish him a good career ahead.

Shree Datta Electricals Engineers and Contractors  
for Shree Datta Electricals  
Engineers & Contractors

Proprietor  
Proprietor



Factory Address : Gat No.-265, Opp R. K. Market Yard, Mouje Agar (Jaysingpur)

Post - Datta Nagar, Tal-Shirol, Dist-Kolhapur. Pin-416 120 [ Maharashtra ]

☎ (02322) 222150, Mob.: 9822043718, (0) 9822792823

Email - shreedattaelectricals.mane@gmail.com & sales@shreedattaelectricals.com

Website - [www.shreedattaelectricals.com](http://www.shreedattaelectricals.com)



# Shree Datta Electricals Engineers & Contractors

Manufacturer & Repairs of all types of Distribution Transformer

Bureau of Indian Standard (BIS), Bureau of Energy Efficiency (BEE) Govt. of India Approved

M.S.E.D.C.L., HESCOM, (Hubballi) Vendor Approved

ISO 9001 : 2015 Certified Company

M.C. No.12908, M.S. No.30651, Govt. Licensed Electrical Contractor

IS:1180, Part 1 : 2014



GM/L-7500154914

Date: - 01/09/2022

## Certificate of Training

This is to certify that, Miss. Bhagyashree Sambhoji Sonawale (PRN-2019088687) student of "Dr. J. J. Magdum College of Engineering, Jaysingpur studying in Final year of "Electronic & Telecommunication Engineering" satisfactory completed her training in our factory for a period of 15 days from 16<sup>th</sup> Aug 2022 to 30<sup>th</sup> Aug 2022 under the guidance of Shri. Sayajirao R. Mane, proprietor of the company & Engineer-Govt. Project.

During this period, she obtained training & experience of the production process, winding, assembly, testing & maintenance of distribution transformer.

We wish her a good career ahead.

Shree Datta Electricals Engineers and Contractors

Shree Datta Electricals  
Engineers & Contractors

Proprietor

Proprietor



Factory Address : Gat No.-285, Upp H. K. Market Yard, Mouje Agar (Jaysingpur)

Post - Datta Nagar, Tal-Shirol, Dist-Kolhapur. Pin-416 120 [ Maharashtra]

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# Shree Datta Electricals Engineers & Contractors

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M.S.E.D.C.L., HESCOM, (Hubbell) Vendor Approved  
ISO 9001:2015 Certified Company  
M.C. No.12908, M.S. No.30651, Govt. Licensed Electrical Contractor

IS:1180: Part 1:2014



CM/L-7500154914

Date: - 01/09/2022

## Certificate of Training

This is to certify that, **Mr. Pratik Dhushant Patil (PRN-2019086737)** student of "Dr. J. J. Magdum College of Engineering, Jaysingpur" studying in Final year of "Electronics & Telecommunication Engineering" satisfactorily completed his training in our factory for a period of 15 days from **16<sup>th</sup> Aug 2022 to 30<sup>th</sup> Aug 2022** under the guidance of **Shri. Sayajirao R. Mane**, proprietor of the company & Engineer-Govt. Project.

During this period, he obtained training & experience of the production process, winding, assembly, testing & maintenance of distribution transformer.

We wish him a good career ahead.

Shree Datta Electricals Engineers and Contractor

Shree Datta Electricals  
Engineers & Contractor

Proprietor  
Proprietor



Factory Address : Gat No.-265, Opp R. K. Market Yaru, Mouje Agar (Jaysingpur)  
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Website - [www.shreedattaelectricals.com](http://www.shreedattaelectricals.com)



# Shree Datta Electricals Engineers & Contractors

Manufacturer & Repairs of all types of Distribution Transformer  
Bureau of Indian Standard (BIS) Bureau of Energy Efficiency (BEE) Govt. of India Approved  
M.S.E.D. O.L. - HESODM (Hubballi) Mandan Approved  
ISO 9001 : 2015 Certified Company  
M.E. No.12809, M.S. No.30551, Govt. Licensed Electrical Contractor

ISO 9001:2014



01/11-7500154914

Date: - 01/09/2022

## Certificate of Training

This is to certify that, **Miss. Nikita Bharat Sutar (PRN-2020081617)** student of "Dr. J. J. Magdum College of Engineering, Jaysingpur" studying in Final year of "Electronics & Telecommunication Engineering" satisfactorily completed her training in our factory for a period of 15 days from **16<sup>th</sup> Aug 2022 to 30<sup>th</sup> Aug 2022** under the guidance of **Shri. Sayajirao R. Mane**, proprietor of the company & Engineer-Govt. Project.

During this period, she obtained training & experience of the production process, winding, assembly, testing & maintenance of distribution transformer.

We wish her a good career ahead.

Shree Datta Electricals Engineers and Contractors

Shree Datta Electricals  
Engineers & Contractors

Proprietor  
Proprietor



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Manufacturer & Repairs of all types of Distribution Transformer

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M.S.E.D.C.L., HESCOM, (Hubbelli) Vendor Approved

ISO 9001 : 2015 Certified Company

M.S. No.12908, M.S. No.30651, Govt. Licensed Electrical Contractor

IS:1180: Part 1 : 2014



GM/L-7500154914

Date: - 01/09/2022

## Certificate of Training

This is to certify that, **Miss. Snehal Prabhakar Koshti (PRN-2018089773)** student of "Dr. J. J. Magdum College of Engineering, Jaysingpur" studying in Final year of "Electronics & Telecommunication Engineering" satisfactory completed her training in our factory for a period of 15 days from **16<sup>th</sup> Aug 2022 to 30<sup>th</sup> Aug 2022** under the guidance of Shri. Sayajirao R. Mane, proprietor of the company & Engineer-Govt. Project.

During this period, she obtained training & experience of the production process, winding, assembly, testing & maintenance of distribution transformer.

We wish her a good career ahead.

Shree Datta Electricals Engineers and Contractors  
For Shree Datta Electricals  
Engineers & Contractors

Proprietor

Proprietor



Factory Address : Gat No.-265, Opp R. K. Market Yard, Mouje Agar (Jaysingpur)

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# Shree Datta Electricals Engineers & Contractors

Manufacturer & Repairs of all types of Distribution Transformer

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M.S.E.D.C., HESCOM (Hubballi) Vendor Approved

ISO 9001 : 2015 Certified Company

M.C. No.12908, M.S. No.30651, Govt. Licensed Electrical Contractor

IS:1180: Part 1 : 2014



CM/L-7500154914

Date: 01/09/2022

## Certificate of Training

This is to certify that, **Miss. Pradnya Arun Khol (PRN-2018089473)** student of "Dr. J. J. Magdum College of Engineering, Jaysingpur" studying in final year of "Electronics & Telecommunication Engineering" satisfactory completed her training in our factory for a period of 15 days from **16<sup>th</sup> Aug 2022 to 30<sup>th</sup> Aug 2022** under the guidance of Shri. Sayajirao R. Mane, proprietor of the company & Engineer-Govt. Project.

During this period, she obtained training & experience of the production process, winding, assembly, testing & maintenance of distribution transformer.

We wish her a good career ahead.

Shree Datta Electricals Engineers and Contractors  
For Shree Datta Electricals  
Engineers & Contractors

Proprietor

Proprietor



Factory Address : Gat No.-265, Opp R. K. Market Yard, Mouje Agar [Jaysingpur]

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# Shree Datta Electricals Engineers & Contractors

Manufacturer & Repairs of all types of Distribution Transformer  
Bureau of Indian Standard (BIS), Bureau of Energy Efficiency (BEE) Govt. of India Approved  
M.S.E.D.C.L., HESCOM, (Hubballi) Vendor Approved  
ISO 9001 : 2015 Certified Company  
M.C. No.12908, M.S. No.30651, Govt. Licensed Electrical Contractor

IS:1180: Part 1, 2016  
  
CM/L-7500154R14

Date: - 07/09/2022

## Certificate of Training

This is to certify that, **Miss. Saniya Shakil Latif (PRN-2018089952)** student of "Dr. J. J. Magdum College of Engineering, Jaysingpur" studying in Final year of "Electronics & Telecommunication Engineering" satisfactory completed her training in our factory for a period of 15 days from **16<sup>th</sup> Aug 2022 to 30<sup>th</sup> Aug 2022** under the guidance of Shri. Sayajirao R. Mane, proprietor of the company & Engineer-Govt. Project.

During this period, she obtained training & experience of the production process, winding, assembly, testing & maintenance of distribution transformer.

We wish her a good career ahead.

Shree Datta Electricals Engineers and Contractors  
For Shree Datta Electricals  
Engineers & Contractors

Proprietor  
Proprietor



Factory Address : Gat No.-265, Opp R. K. Market Yard, Mouje Agar (Jaysingpur)  
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Website - [www.shreedattaelectricals.com](http://www.shreedattaelectricals.com)



**Gustovalley Technovations**  
**CERTIFICATE OF COMPLETION**

This Certifies that

has successfully completed Gustovalley Technovations's Online Internship on Industry 4.0 which was conducted from 10-8-2022 to 10-9-2022.

The Performance delivered during the program was Good

Date . 15-9-2022

Authorized Signatory

Certificate No. : GL103482







# MORYA INDUSTRIES

TRAINING COURSE ON PCB DESIGNING & MANUFACTURING PRINTED CIRCUIT BOARD

BUDHWAR PETH-WEST MADHAVNAGAR (SANGLI), 415 106  
E-Mail: moryaalecrtedesign@gmail.com

MO. 9890678139

DATE:-21-APRIL 2022

## Training Certificate

This certificate is given to

**Mr. Vinesh Vijay Kamble**

For successfully completing the industrial training course on Designing and manufacturing process of different types of electronics printed circuit board for the period of 10 feb. 2022 to 28 feb. 2022. During this period he has good moral character & good working in this service period. We wish him great Engineering Career ahead.

This certificate is given on his own request.

FOR MORYA INDUSTRIES

Authorised Signature





# Shree Datta Electricals Engineers & Contractors

Manufacturer & Repairs of all types of Distribution Transformer  
Bureau of Indian Standard (BIS), Bureau of Energy Efficiency (BEE) Govt. of India Approved  
M.S.E.D.C.L., HESCOM, (Hubballi) Vendor Approved  
ISO 9001 : 2015 Certified Company  
M.C. No.12908, M.S. No.30651, Govt. Licensed Electrical Contractor

IS:1180, Part 1 : 2014



OMIL-7500154914

Date: - 01/09/2022

## Certificate of Training

This is to certify that, **Mr. Dhannapa Somaning Chikkilaki (PRN-2019086731)** student of "**Dr. J. J. Magdum College of Engineering, Jaysingpur**" studying in Final year of "**Electronics & Telecommunication Engineering**" satisfactory completed his training in our factory for a period of 15 days from **16<sup>th</sup> Aug 2022 to 30<sup>th</sup> Aug 2022** under the guidance of Shri. Sayajirao R. Mane, proprietor of the company & Engineer-Govt. Project.

During this period, he obtained training & experience of the production process, winding, assembly, testing & maintenance of distribution transformer.

We wish him a good career ahead.

Shree Datta Electricals Engineers and Contractors  
For Shree Datta Electricals  
Engineers & Contractors

Proprietor

Proprietor



Factory Address : Gat No.-265, Opp R. K. Market Yard, Mouje Agar (Jaysingpur)  
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Website - [www.shreedattaelectricals.com](http://www.shreedattaelectricals.com)



# Shree Datta Electricals Engineers & Contractors

Manufacturer & Repairs of all types of Distribution Transformer

Bureau of Indian Standard (BIS), Bureau of Energy Efficiency (BEE) Govt. of India Approved

M.S.E.D.C.L., -ESCOM,(Hubsballi) Vendor Approved

ISO 9001 : 2015 Certified Company

M.C. No.1290B, M.S. No.30651, Govt. Licensed Electrical Contractor

IS-1180: Part 1 : 2014



QM/L-7500154814

Date: - 01/09/2022.

## Certificate of Training

This is to certify that, **Miss. Komal bhanudas Patil (PRN-2018089561)** student of "Dr. J. J. Magdum College of Engineering, Jaysingpur studying in Final year of "Electronics & Telecommunication Engineering" satisfactory completed her training in our factory for a period of 15 days from **16<sup>th</sup> Aug 2022 to 30<sup>th</sup> Aug 2022** under the guidance of Shri. Sayajirao R. Mane, proprietor of the company & Engineer-Govt. Project.

During this period, she obtained training & experience of the production process, winding, assembly, testing & maintenance of distribution transformer.

We wish her a good career ahead.

Shree Datta Electricals Engineers and Contractors

Shree Datta Electricals  
Engineers & Contractors

Proprietor

Proprietor



Factory Address : Gat No.-265, Opp R. K. Market Yard, Mouje Agar (Jaysingpur)

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Website - [www.shreedattaelectricals.com](http://www.shreedattaelectricals.com)



# MORYA INDUSTRIES

MANUFACTURERS & DESIGNERS OF QUALITY PRINTED CIRCUIT BOARD

BUDHWAR PETH-WEST MADHAVNAGARISANGLI. 416 406  
E-Mail: moryaelectrodesign@gmail.com

MO. 9890678139

DATE: 27 JAN 2022


## Training Certificate

This certificate is given to

**Ms. Sneha Sanjay Kate**

For successfully completing the industrial training course on Designing and manufacturing process of different types of electronics printed circuit board for the period of 10 Jan 2022 to 24 Jan 2022. During this period she has good moral character & good working in this service period. We wish her great Engineering Career ahead.  
This certificate is given on her own request.

FOR MORYA INDUSTRIES

  
Authorized Signature





# MORYA INDUSTRIES

MANUFACTURERS & DESIGNERS OF QUALITY PRINTED CIRCUIT BOARDS

BUDHWAR PETH-WEST MADHAVNAGAR(SANGLI), 416 406  
E-Mail: moryaelectrodesign@gmail.com

MO. 9890678139

DATE:-21-APRIL 2022

## Training Certificate

This certificate is given to

**Mr. Omkar Vaibhav Vaidya**

For successfully completing the industrial training course on Designing and manufacturing process of different types of electronics printed circuit board for the period of 10 feb. 2022 to 28 feb. 2022. During this period he has good moral character & good working in this service period. We wish him great Engineering Career ahead.  
This certificate is given on his own request.

FOR MORYA INDUSTRIES

Authorised Signature





# MORYA INDUSTRIES

TRAINING COURSE AFFILIATION NO. OF QUALITY PRINTED CIRCUIT BOARDS

BODHWAR PETH-WEST MADHAVNAGAR(SANGLI), 415 406.  
E-Mail: moryaelectrodesign@gmail.com

MO. 9890678139

DATE:-21-APRIL 2022

## Training Certificate

This certificate is given to

**Mr. Tejas Gurudatta Gurav**

For successfully completing the industrial training course on Designing and manufacturing process of different types of electronics printed circuit board for the period of 10 feb. 2022 to 28 feb. 2022. During this period he has good moral character & good working in this service period. We wish him great Engineering Career ahead.  
This certificate is given on his own request.

FOR MORYA INDUSTRIES

Authorised Signature





# MORYA INDUSTRIES

MANUFACTURERS & DESIGNERS OF QUALITY PRINTED CIRCUIT BOARD

BUDHWAR PETH-WEST MADHAVNAGAR(SANGLI), 416 406  
E-Mail: moryaelectrodesign@gmail.com

MO. 9890678139

DATE:-24-JULY 2022

## Training Certificate

This certificate is given to

**Ms. Reena Babanrao Made**

For successfully completing the industrial training course on Designing and manufacturing process of different types of electronics printed circuit board for the period of 15 June 2022 to 30 June 2022. During this period she has good moral character & good working in this service period. We wish her great Engineering Career ahead.

This certificate is given on her own request.

FOR MORYA INDUSTRIES

Authorised Signature





# MORYA INDUSTRIES

MANUFACTURERS & DESIGNERS OF QUALITY PRINTED CIRCUIT BOARDS

BUDHWAR PETH-WEST MADHAVNAGAR(SANGLI). 416 406  
E-Mail: moryaelectodesign@gmail.com

MO. 9890678139

DATE:-24-JULY 2022

## Training Certificate

This certificate is given to

**Ms. Shweta Suryakant Gaikwad**

For successfully completing the industrial training course on Designing and manufacturing process of different types of electronics printed circuit board for the period of 15 June 2022 to 30 June 2022. During this period she has good moral character & good working in this service period. We wish her great Engineering Career ahead.  
This certificate is given on her own request.

FOR MORYA INDUSTRIES



  
Authorised Signature







# MORYA INDUSTRIES

MANUFACTURERS OF DESIGN (PCB) & (PCBA) PRINTED CIRCUIT BOARD

BUDHWAR PETH-WEST MIDHAYNAGAR(SANGLI), 415406  
E-Mail: moryaelectrodesign@gmail.com

MO. 9890678139

DATE:-27-JAN 2022

## Training Certificate

This certificate is given to

**Ms. Gayatri Bharat Patil**

For successfully completing the industrial training course on Designing and manufacturing process of different types of electronics printed circuit board for the period of 10 Jan 2022 to 24 Jan 2022. During this period she has good moral character & good working in this service period. We wish her great Engineering Career ahead.  
This certificate is given on her own request.

FOR MORYA INDUSTRIES

Authorised Signature





# MORYA INDUSTRIES

MANUFACTURERS & DESIGNERS OF QUALITY PRINTED CIRCUIT BOARD

BUDHWAR PETH-WEST MADHAVNAGAR(SANGLI), 416 406  
E-Mail: moryaelectrodesign@gmail.com

MO. 9890678139

DATE:-27-JAN 2022

## Training Certificate

This certificate is given to

**Ms. Mohini Somnath Chavan**

For successfully completing the industrial training course on Designing and manufacturing process of different types of electronics printed circuit board for the period of 10 Jan 2022 to 24 Jan 2022. During this period she has good moral character & good working in this service period. We wish her great Engineering Career ahead.  
This certificate is given on her own request.

FOR MORYA INDUSTRIES



  
Authorised Signature



# Shree Datta Electricals Engineers & Contractors

Manufacturer & Repairs of all types of Distribution Transformer  
Bureau of Indian Standard (BIS), Bureau of Energy Efficiency (BEE) Govt. of India Approved

M.S.E.D.C.L., HESGOM, (Hubballi) Vendor Approved

ISO 9001 : 2015 Certified Company

M.C. No. 12809, M.S. No. 30651, Govt. Licensed Electrical Contractor

IS:1190: Part 1 : 2014



CM/L-7500154914

Date: - 01/09/2022

## Certificate of Training

This is to certify that, Mr. Sanket Suresh Bhoi (PRN-2017094688) student of "Dr. J. J. Magdum College of Engineering, Jaysingpur studying in Final year of "Electronics & Telecommunication Engineering" satisfactory completed his training in our factory for a period of 15 days from 16<sup>th</sup> Aug 2022 to 30<sup>th</sup> Aug 2022 under the guidance of Shri. Sayojirao R. Mane, proprietor of the company & Engineer-Govt. Project.

During this period, he obtained training & experience of the production process, winding, assembly, testing & maintenance of distribution transformer.

We wish him a good career ahead.

Shree Datta Electricals Engineers and Contractors

Shree Datta Electricals  
Engineers & Contractors

Proprietor



Factory Address : Gat No.-265, Opp R. K. Market Yard, Mouje Agar [Jaysingpur]  
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Website - [www.shreedattaelectricals.com](http://www.shreedattaelectricals.com)



# MORYA INDUSTRIES

MANUFACTURERS & DESIGNERS OF QUALITY PRINTED CIRCUIT BOARD

BUDHWAR PETH-WEST MADHAVNAGAR(SANGLI), 416 406

E-Mail: moryaelectrodesign@gmail.com

MO. 9890678139

DATE:-21-APRIL 2022

## Training Certificate

This certificate is given to

**Mr. Rohit Chandrakant Patil**

For successfully completing the industrial training course on Designing and manufacturing process of different types of electronics printed circuit board for the period of 10 feb. 2022 to 28 feb. 2022.

During this period he has good moral character & good working in this service period. We wish him great Engineering Career ahead.

This certificate is given on his own request.

FOR MORYA INDUSTRIES

Authorised Signature





# Shree Datta Electricals Engineers & Contractors

Manufacturer & Repairs of all types of Distribution Transformer

Bureau of Indian Standard (BIS), Bureau of Energy Efficiency (BEE) Govt. of India Approved

M.S.E.D.C.L., HESCOM, (Hubballi) Vendor Approved

ISO 9001 - 2015 Certified Company

M.C. No. 12808, M.S. No. 30651, Govt. Licensed Electrical Contractor

IS: 1180, Part 1 - 2014



CM/L-7500154914

Date: - 01/09/2022

## Certificate of Training

This is to certify that, **Mr. Chetan Sanjay Pail (PRN-2018091535)** student of "Dr. J. J. Magdum College of Engineering, Jaysingpur" studying in Final year of "Electronics & Telecommunication Engineering" satisfactorily completed his training in our factory for a period of 15 days from **16<sup>th</sup> Aug 2022 to 30<sup>th</sup> Aug 2022** under the guidance of Shri. Sayajirao R. Mane, proprietor of the company & Engineer-Govt. Project.

During this period, he obtained training & experience of the production process, winding, assembly, testing & maintenance of distribution transformer.

We wish him a good career ahead.

Shree Datta Electricals Engineers and Contractors  
For Shree Datta Electricals  
Engineers & Contractors

Proprietor

Proprietor



Factory Address : Gat No.-265, Opp R. K. Market Yard, Mouje Agar (Jaysingpur)

Post - Datta Nagar, Tal-Shirol, Dist-Kolhapur, Pin-416 120 (Maharashtra)

☎ (02322) 222150, Mob.: 9822043719, (0) 9822792823

Email - shreedattaelectricals.mane@gmail.com & sales@shreedattaelectricals.com

Website - [www.shreedattaelectricals.com](http://www.shreedattaelectricals.com)



# Shree Datta Electricals Engineers & Contractors

Manufacturer & Repairs of all types of Distribution Transformer

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M.S.E.D.C.L. (HESCOM, Hubballi) Vendor Approved

ISO 9001:2015 Certified Company

M.C. No. 12808, M.S. No. 30851, Govt. Licensed Electrical Contractor

IS:1160: Part 1: 2014



CM/L-7500154914

Date: - 01/09/2022

## Certificate of Training

This is to certify that, **Mr. Aniket Satish Patil (PRN-2018090328)** student of "**Dr. J. J. Magdum College of Engineering, Jaysingpur**" studying in Final year of "**Electronics & Telecommunication Engineering**" satisfactorily completed his training in our factory for a period of 15 days from **16<sup>th</sup> Aug 2022 to 30<sup>th</sup> Aug 2022** under the guidance of **Shri. Sayajirao R. Mane**, proprietor of the company & Engineer-Govt. Project.

During this period, he obtained training & experience of the production process, winding, assembly, testing & maintenance of distribution transformer.

We wish him a good career ahead.

Shree Datta Electricals Engineers and Contractors  
For Shree Datta Electricals  
Engineers & Contractors

Proprietor

Proprietor



Factory Address : Gat No.-265, Opp R. K. Market Yard, Mouje Agar (Jaysingpur)

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# Shree Datta Electricals Engineers & Contractors

Manufacturer & Repairs of all types of Distribution Transformer  
Bureau of Indian Standard (BIS), Bureau of Energy Efficiency (BEE) Govt. of India Approved

M.S.E.D.C.L., HESCOM, (Hubbali) Vendor Approved

ISO 9001 - 2015 Certified Company

M.C. No.12908, M.S. No.30651, Govt. Licensed Electrical Contractor

IS:1180: Part 1, 2014



CM/L-7500154914

Date: - 01/09/2022

## Certificate of Training

This is to certify that, **Mr. Jayesh Sunil Jathar (PRN-2019086730)** student of "Dr. J. J. Magdum College of Engineering, Jaysingpur" studying in Final year of "Electronics & Telecommunication Engineering" satisfactory completed his training in our factory for a period of 15 days from **16<sup>th</sup> Aug 2022 to 30<sup>th</sup> Aug 2022** under the guidance of Shri. Sayajirao R. Mane, proprietor of the company & Engineer-Govt. Project.

During this period, he obtained training & experience of the production process, winding, assembly, testing & maintenance of distribution transformer.

We wish him a good career ahead.

Shree Datta Electricals Engineers and Contractors  
For Shree Datta Electricals  
Engineers & Contractors

Proprietor

Proprietor



Factory Address : Gat No.-265, Opp R. K. Market Yard, Mouje Agar (Jaysingpur)

Post - Datta Nagar, Tal-Shirol, Dist-Kolhapur. Pin-416 120 [ Maharashtra ]

☎ (02322) 222150, Mob.: 9822043719, [O] 9822792823

Email - shreedattaelectricals.mane@gmail.com & sales@shreedattaelectricals.com

Website - [www.shreedattaelectricals.com](http://www.shreedattaelectricals.com)



P 90, Mahananda Nagar, Manmad Nashik-423104;  
MH India  
GSTIN/UIN  
27ABIPA9017G1ZU

## CERTIFICATE

VVT/HRDD/INT00 S2022

Date: 10/09/2022

This is to certify that **Mr. SUDHIR DARYAPPA SALE** University (PRN-0812216759) pursuing final year (B.E. in Electronics and Telecommunication Engineering) from "Dr. J. J. Magdum College of Engineering, Jaysingpur." Affiliated to "Shivaji University, Kolhapur" has carried out Internship at "PLC Logic and HMI Modifications" in Maintenance division under VVT Navi Mumbai, during the period from 22.08.2022 to 09.09.2022.

Under the guidance of Mr. Nitin Lamdade Engineer of the company, during the above period, his/her character and conduct were found to be **Very Good**.

We wish him/her success in future endeavors.

**SOHEL TAMBOLI 522508**

**BDM ILSCV**

**BDM ILSCV**

For VidVed Technologies,

**Vishal Abhang**



Tel: +91-9981236229

e-mail: visha\_abhang@yahoo.com





Ref:

Date: - 15-July-2021

To,

The Head of the Department/Program,  
Department of E&TC Engineering  
Dr.J.J.Magdum collage of Engineering,  
Jaysingpur, Shirol-Wadi Road, 416101

This is to certify that **Mr.Chaitanya Arvind Kore** ( Roll No:11 ) second year student of Electronics and Telecommunication Engineering Department of Dr.J.J.Magdum Collage of Engineering, jaysingpur, Kolhapur has completed his internship work as per our expected solutions and up to the mark, in our firm. During the period of 1<sup>st</sup> July 2021 to 15<sup>th</sup> July 2021 (with reference to request letter Ref/JJMCOE/ETC/2020-21/). During the period of his internship with us he has found punctual, Hardworking, and inquisitive.

We are appreciating your great efforts to bridge the gap between industry and institute by promoting and encouraging the students to work on industry problems. We looking forward to maintain the relationship with us by helping each other as and when required.

We wish best of luck for her bright future.

With best regards,

Manager





# Shree Datta Electricals Engineers & Contractors

Manufacturer & Repairs of all types of Distribution Transformer  
Bureau of Indian Standard (BIS), Bureau of Energy Efficiency (BEE) Govt. of India Approved  
M.S.E.D.C.L., HESCOM, [Hubballi] Vendor Approved  
ISO 9001 : 2015 Certified Company  
M.C. No.12908, M.S. No.30651, Govt. Licensed Electrical Contractor

IS:1180: Part 1 : 2014



CM/L-7500154914

Date: - 01/09/2022

## Certificate of Training

This is to certify that, **Mr. Abhishek Narendra Pawar (PRN-2018091531)** student of "Dr. J. J. Magdum College of Engineering, Jaysingpur" studying in Final year of "Electronics & Telecommunication Engineering" satisfactorily completed his training in our factory for a period of 15 days from **16<sup>th</sup> Aug 2022 to 30<sup>th</sup> Aug 2022** under the guidance of Shri. Sayajirao R. Mane, proprietor of the company & Engineer-Govt. Project.

During this period, he obtained training & experience of the production process, winding, assembly, testing & maintenance of distribution transformer.

We wish him a good career ahead.

Shree Datta Electricals Engineers and Contractors  
For Shree Datta Electricals  
Engineers & Contractors


Proprietor

Proprietor



Factory Address : Gat No.-265, Opp R. K. Market Yard, Mouje Agar [Jaysingpur]  
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☎ (02322) 222150, Mob.: 9822043719, (0) 9822792823  
Email - shreedattaelectricals.mane@gmail.com & sales@shreedattaelectricals.com  
Website - [www.shreedattaelectricals.com](http://www.shreedattaelectricals.com)

Augmentation

|                                                                                   |                                                             |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------|
|  | Dr. J. J. Magdum College of Engineering, Jaysingpur.        |
|                                                                                   | Department of Electronics and Telecommunication Engineering |

Augmentation Summary

| Year    | Name of the workshop              | Number of Participants | Date From - To                               |
|---------|-----------------------------------|------------------------|----------------------------------------------|
| 2022-23 | Hands on Experience of Embedded C | 31                     | 13 <sup>th</sup> Dec 2022                    |
|         | PLC Programming                   | 50                     | 6 <sup>th</sup> and 7 <sup>th</sup> Dec 2022 |

  
Mrs. Phutane M.U.  
Augmentation Coordinator

  
Mr. Kolap M.M.  
H.O.D. E&TC, Engg.





Dr. J. J. Magdum Trust's (No. E/902)


**Dr. J. J. Magdum College of Engineering, Jaysingpur**  
*Department of Electronics and E&TC Engineering*

Date:- 5<sup>th</sup> Dec 2022

### Notice

All the students of B.Tech. Etrx and E&TC are hereby informed that **Two day Workshop on "PLC programming"** is arranged on 6<sup>th</sup> and 7<sup>th</sup> Dec 2022 at CCF Lab. Attendance is compulsory. Following is the schedule.

| Date                     | Day       | Time                |
|--------------------------|-----------|---------------------|
| 6 <sup>th</sup> Dec 2022 | Tuesday   | 11.40 am to 4.30 pm |
| 7 <sup>th</sup> Dec 2022 | Wednesday | 9.30 am to 4.30 pm  |

  
Mrs. Phutane M.U.  
Augmentation Co-ordinator

  
Mr. Kolap M.M.  
H.O.D.  
Etrx and E&TC, Engg.Dept.



Dr. J. J. Magdum Trust's (No. E/902)


**Dr. J. J. Magdum College of Engineering, Jaysingpur**  
*Department of Electronics and E&TC Engineering*


Date:- 5<sup>th</sup> Dec 2022

### Circular

Two day Workshop on "PLC programming" is arranged on 6<sup>th</sup> and 7<sup>th</sup> Dec 2022, as per the following schedule. All the faculty of B.Tech. Etrx and E&TC should take note of it. First two lectures on 6<sup>th</sup> Dec 2022 will be conducted as per the regular schedule.

| Date                     | Day       | Time                |
|--------------------------|-----------|---------------------|
| 6 <sup>th</sup> Dec 2022 | Tuesday   | 11.40 am to 4.30 pm |
| 7 <sup>th</sup> Dec 2022 | Wednesday | 9.30 am to 4.30 pm  |

  
Mrs. Phutane M.U.  
Augmentation Co-ordinator

  
Mr. Kolap M.M.  
H.O.D.  
Etrx and E&TC, Engg.Dept.





Dr. J. J. Magdum Trust's (No. E/902)  
 Department of Electronics and E&TC Engineering, Jaysingpur

Date: 30/1/22

To,  
 The Principal,  
 D.J.J.M.COE,  
 Jaysingpur

Sub:- Permission for conducting the two day workshop on "PLC and SCADA" for B.Tech students

Respected Sir,

As per the suggestions from TPO of our institute, We are organizing the two day workshop on "PLC and SCADA" for B. Tech. students of E&TC Engg. on 5th and 6th Dec 2022. For the same the budget is Rs. 9000.-. Quotation of the same is attached herewith. So we request you to give the permission for conducting the workshop and also sanction the required budget.

Thanking You,

*[Signature]*  
 Mrs. Pritiware M.U.  
 Augmentation in-charge

Yours Faithfully,

*[Signature]*  
 Mr. Kolar M.M.  
 H.O.D.  
 Dept. of E&TC Engg.

Recommended  
*[Signature]*  
 30/1/22

Received  
*[Signature]*  
 01/12/22





Dr. J. J. Magdum Trust's (No. E/902)  
Dr. J. J. Magdum College of Engineering, Jaysingpur  
Department of Electronics and E&TC Engineering

Date: 7/12/22

To,

Mr. Gadgil A.D.  
Hem Electronics,  
Kupwad MIDC, Miraj

Sub.: Thanking for two day workshop on "PLC programming".

Dear Sir,

We, on behalf of E&TC Department of our college, hereby express our sincere thanks for conducting workshop on "PLC programming" on 6<sup>th</sup> and 7<sup>th</sup> Dec 2022 for B.Tech. E&TC and Etrc students. The workshop explored the wide scope of information.


We expect same co-operation in future.

Thanking you,

With regards,

  
Mrs. Phutane M.U.

Augmentation Co-coordinator

  
Mr. Kolap M.M.

H.O.D. E&TC. Engg.

Received  
Date





Dr. J. J. Magdum Trust's (No. E/902)  
**Dr. J. J. Magdum College of Engineering, Jaysingpur**  
*Department of Electronics and E&TC Engineering*

Date: 28/11/22

To,  
Mr. Gadgil A.D.  
Hem Electronics,  
Kupwad MIDC, Miraj


Sub.: Invitation for two day workshop on "PLC programming".


Dear Sir,

Our's is a leading Educational Institute offering four year degree course in different faculties of Engineering. In an attempt to expose our students to practical applications of their theoretical knowledge, we propose to arrange workshops of experts. With this reference we would like to invite you for one day workshop on "PLC programming" on 6<sup>th</sup> and 7<sup>th</sup> Dec 2022 for B.Tech. E&TC and Etrx. students. We hope that you accept our invitation.

Thanking you,

With regards,

  
Mrs. Phutane M.U.  
Augmentation Co-coordinator

  
Mr. Kolap M.M.  
H.O.D. E&TC. Engg.

Received  
12/12/22





Dr. J. J. Magdum Inst's (No. E-902)  
Dr. J. J. Magdum College of Engineering, Jaysingpur  
Department of Electronics and E&TC Engineering

Date: 7/12/22

Attendance sheet of " PLC Programming "

| Roll.no | Name of student         | 9.30 am     | 11.40am     | 2.30pm      |
|---------|-------------------------|-------------|-------------|-------------|
| 1       | Babar Prasad Popat      | Popat       |             |             |
| 2       | Sonawale Bhagyashree    |             |             |             |
| 3       | Patil Pratik Dushyant   | Patil       |             |             |
| 4       | Sutar Nikita            | Nutar       |             |             |
| 5       | Shetti Namrata Sunil    | Shetti      |             |             |
| 6       | Koshti Snehal Prabhakar | Koshti      |             |             |
| 7       | Khot Pradnya Arun       | Khot        | Khot        | Khot        |
| 8       | Latif Saniya Shakil     | Solatif     | Solatif     | Solatif     |
| 9       | Nadaf Saniya Haroon     |             |             |             |
| 10      | Shinge Ranjeet Balaso   |             |             |             |
| 11      | Kamble Vinesh Vijay     | Vinesh      | Vinesh      | Vinesh      |
| 12      | Chikalakki Dhanappa S.  | Spinraj     | Spinraj     | Spinraj     |
| 13      | Patil Komal Bhanudas    | Patil       | Patil       | Patil       |
| 14      | Kate Sneha Sanjay       | Kate        | Kate        | Kate        |
| 15      | Vaidya Omkar Vaibhav    | Vaidya      |             |             |
| 16      | Gurav Tejas Gurudatta   | Tejas G.    | Tejas G.    | Tejas G.    |
| 17      | Reena Babanrao Made     | Reena       | Reena       | Reena       |
| 18      | Gaikwad Shweta S.       | Shweta      | Shweta      | Shweta      |
| 19      | Patil Gayatri Bharat    | Patil       | Patil       | Patil       |
| 20      | Chavan Mohini Somnath   | Chavan      | Chavan      | Chavan      |
| 21      | Sanket Suresh Bhoi      | Sanket      | Sanket      | Sanket      |
| 22      | Patil Rohit Chandrakant | Patil       | Patil       | Patil       |
| 23      | Patil Chetan Sanjay     | Patil       |             |             |
| 24      | Aniket Patil Thorat     | Patil       |             |             |
| 25      | Kacchi Akil Hanif       |             |             |             |
| 26      | Mujawar Tanjeel M.      | T.R.Mujawar | T.R.Mujawar | T.R.Mujawar |





|    |                       |            |               |              |
|----|-----------------------|------------|---------------|--------------|
| 27 | Jathar Jayesh Sunil   | Jathar     |               |              |
| 28 | Sudhir Sale           | Sudhir     | Sale          | Sale         |
| 29 | Kore Chaitanya Arvind | Kore       | Arvind        | Arvind       |
| 30 | Abhishek pawar (etrx) | Abhishek   | Pawar         | Pawar        |
| 31 | Kajal patil(etrx)     | Kajal      | Patil         | Patil        |
| 21 | Saeed Ahmed Manin     | Saeed      | Ahmed         | (Mechanical) |
| 25 | Manglikesh Shrikant   | Manglikesh | Shrikant      |              |
| 12 | Punjabesh R. Khatke   | Punjabesh  | R. Khatke     | Mech         |
| 04 | Pradyuma R. Khatke    | Pradyuma   | R. Khatke     | Mech         |
| 24 | Shubham P. Patil      | Shubham    | P. Patil      | (Mech)       |
| 03 | Patil Sowabh S.       | Patil      | Sowabh S.     | (Mech)       |
| 20 | Patil Saurabh Popat   | Patil      | Saurabh Popat | (Mech)       |

  
 Mrs. Phutane M.U.  
 Augmentation Co-coordinator

  
 Mr. Kolap M.M.  
 H.O.D. E&TC, Engg.





Dr. J. J. Magdum Trust's (No. E/902)  
Dr. J. J. Magdum College of Engineering, Jaysingpur  
Department of Electronics and E&TC Engineering

Date: 6/12/22

Attendance sheet of "PLC Programming"

| Roll.no | Name of student         | 11.40am    | 2.30pm     |
|---------|-------------------------|------------|------------|
| 1       | Babar Prasad Papat      | B.P.P.     | B.P.P.     |
| 2       | Sonawale Bhagyashree    | Sonawale   | Sonawale   |
| 3       | Patil Pratik Dushyant   | Patil      | Patil      |
| 4       | Sutar Nikita            | Sutar      | Sutar      |
| 5       | Shetti Namrata Sunil    | Shetti     | Shetti     |
| 6       | Koshti Snehal Prabhakar | Koshti     | Koshti     |
| 7       | Khot Pradnya Aran       | Khot       | Khot       |
| 8       | Latif Saniya Shakil     | Latif      | Latif      |
| 9       | Nadaf Saniya Haroon     | Nadaf      | Nadaf      |
| 10      | Shinge Ranjeet Balasa   |            |            |
| 11      | Kamble Vinesh Vijay     | Kamble     | Kamble     |
| 12      | Chikalakki Dhanappa S.  | Chikalakki | Chikalakki |
| 13      | Patil Komal Bhanudas    | Patil      | Patil      |
| 14      | Kate Sneha Sanjay       | Kate       | Kate       |
| 15      | Vaidya Omkar Vaibhav    | Vaidya     | Vaidya     |
| 16      | Gurav Tejas Gurudatta   | Gurav      | Gurav      |
| 17      | Reena Babanrao Made     | Reena      | Reena      |
| 18      | Gaikwad Shweta S.       | Gaikwad    | Gaikwad    |
| 19      | Patil Gayatri Bharat    | Patil      | Patil      |
| 20      | Chavan Mohini Somnath   | Chavan     | Chavan     |
| 21      | Sanket Suresh Bhoi      | Bhoi       | Bhoi       |
| 22      | Patil Rohit Chandrakant | Patil      | Patil      |
| 23      | Patil Chetan Sanjay     | Patil      | Patil      |
| 24      | Aniket Patil Thorat     | Aniket     | Aniket     |
| 25      | Kacchi Akil Haraf       |            |            |
| 26      | Mujawar Tanjeel M.      | Mujawar    | Mujawar    |



|    |                       |         |         |
|----|-----------------------|---------|---------|
| 27 | Jathar Jayesh Sunil   | Jathar  | Jathar  |
| 28 | Sudhir Sale           | Sudhir  | Sudhir  |
| 29 | Kore Chaitanya Arvind | CAKore  | CAKore  |
| 30 | Abhishek pawar (etrx) | ANPawar | ANPawar |
| 31 | Kajal patil(etrx)     |         |         |
|    |                       |         |         |
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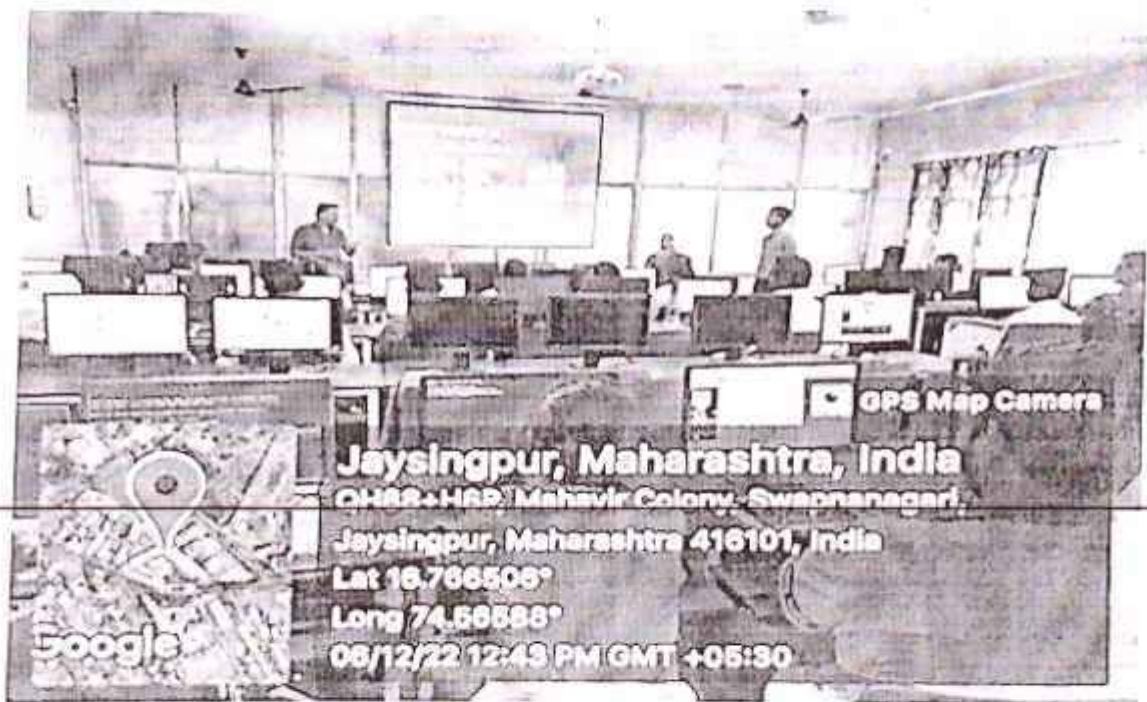
  
Mrs. Phulane M.U.  
Augmentation Co-coordinator

  
Mr. Kolap M.M.  
H.O.D. E&TC. Engg.





Workshop on "PLC Programming" 6<sup>th</sup> and 7<sup>th</sup> Dec 2022



Dr. J. J. Magdum Trust's (No. E/902)

**DR. J. J. MAGDUM COLLEGE OF ENGINEERING, JAYSINGPUR.**



**Department of Electronics & Telecommunication Engineering**

**CERTIFICATE**

This is to certify that, Mr./Ms. .... has attended five Days Workshop of "PLC Programming" organized by Department of ETC Engineering under Augmentation Cell activity at Dr. J. J. Magdum College of Engineering, Jaysingpur on 6<sup>th</sup> and 7<sup>th</sup> Dec 2022.

*[Signature]*

Co-ordinators  
Prof. Mrs. Phutane M. V.

*[Signature]*

HOD(ETC)  
Prof. Koley M. M.





Dr. J. J. Magdum Trust's (No. E/902)  
**Dr. J. J. Magdum College of Engineering, Jaysingpur**  
*Department of Electronics and E&TC Engineering*

Date - 8<sup>th</sup> Dec 2022

### Notice

All the students of B.Tech. E&TC and E&TC are hereby informed that One day Workshop on "Hands on experience of Embedded C" is arranged on 13<sup>th</sup> Dec 2022 at Microcontroller Lab from 9.30 am onwards. Attendance is compulsory.

Mrs. Phutane M.U.  
Augmentation Co-ordinator

Mr. Kolap M.M.  
H.O.D.  
E&TC and E&TC, Engg Dept.



Dr. J. J. Magdum Trust's (No. E/902)  
**Dr. J. J. Magdum College of Engineering, Jaysingpur**  
*Department of Electronics and E&TC Engineering*

Date - 8<sup>th</sup> Dec 2022

### Circular

One day Workshop on "Hands on experience of Embedded C" is arranged on 13<sup>th</sup> Dec 2022, from 9.30 am onwards. All the faculty of B.Tech. E&TC and E&TC should take note of it.

Mrs. Phutane M.U.  
Augmentation Co-ordinator

Mr. Kolap M.M.  
H.O.D.  
E&TC and E&TC, Engg Dept.



Dr. J. J. Magdum Institute No. 1/2022

Dr. J. J. Magdum College of Engineering, Jaysingpur  
Department of Electronics and E&TC Engineering

Date: 13/12/22

To,

Prof. Mrs. Phutane M.U.,  
Dept. of E&TC Engg.,  
Dr.J.J.M.C.O.E., Jaysingpur

Sub:- Thanking for one day workshop on "Hands on experience of Embedded C".


Dear Sir/Madam,


We, on behalf of E&TC Department of our college, hereby express our sincere, thanks for conducting workshop on "Hands on experience of Embedded C" on 13<sup>th</sup> Dec 2022 for B.Tech. E&TC and Etr. students. The workshop explored the wide scope of information.

We expect same co-operation in future

Thanking you.

With regards,

  
Mrs. Chavan D.U.  
Subject Incharge

  
Mr. Kolap M.M.  
H.O.D. E&TC. Engg.





Dr. J. J. Magdum Trust's (No. E/902)  
Dr. J. J. Magdum College of Engineering, Jaysingpur  
Department of Electronics and E&TC Engineering

Date: 8/12/22

To,  
Prof. Mrs. Phutane M.U.,  
Dept. of E&TC Engg.,  
Dr.J.J.M.C.O.E., Jaysingpur

Sub.:- Invitation for one day workshop on "Hands on experience of Embedded C".

Dear Sir/Madam,

Our's is a leading Educational Institute offering four year degree course in different faculties of Engineering. In an attempt to expose our students to practical applications of their theoretical knowledge, we propose to arrange workshops of experts. With this reference we would like to invite you for one day workshop on "Hands on experience of Embedded C" on 13<sup>th</sup> Dec 2022 for B.Tech. E&TC and Etrc. students.

We hope that you accept our invitation.

Thanking you.

With regards,

  
Mrs. Chavan D.U.  
Subject Incharge

  
Mr. Kolap M.M.  
H.O.D. E&TC. Engg.







Dr. J. J. Magdum Trust's (No. F-902)  
**Dr. J. J. Magdum College of Engineering, Jaysingpur**  
*Department of Electronics and E&TC Engineering*

Date: 8/12/22

To,  
Prof. Mrs. Phutane M.U.  
Dept. of E&TC Engg.,  
Dr.J.J.M.C.O.E., Jaysingpur

Sub:- Invitation for one day workshop on "Hands on experience of Embedded C".


Dear Sir/Madam,

Our's is a leading Educational Insitute offering four year degree course in different faculties of Engineering. In an attempt to expose our students to practical applications of their theoretical knowledge, we propose to arrange workshops of experts. With this reference we would like to invite you for one day workshop on "Hands on experience of Embedded C" on 13<sup>th</sup> Dec 2022 for B.Tech. E&TC and Etx. students.

We hope that you accept our invitation.

Thanking you.

With regards,

  
Mrs. Chavan D.U.  
Subject Incharge

  
Mr. Kolap M.M.  
H.O.D. E&TC. Engg.





Dr. J. J. Magdum Trust's (No. E/902)

**Dr. J. J. Magdum College of Engineering, Jaysingpur**  
*Department of Electronics and E&TC Engineering*

Date: 13/12/22

To,

Prof. Mrs. Phutane M.U.  
Dept. of E&TC Engg.,  
Dr.J.J.M.C.O.E., Jaysingpur

Sub:- Thanking for one day workshop on "Hands on experience of Embedded C".


Dear Sir/Madam,


We, on behalf of E&TC Department of our college, hereby express our sincere, thanks for conducting workshop on "Hands on experience of Embedded C" on 13<sup>th</sup> Dec 2022 for B.Tech. E&TC and Etrx. students. The workshop explored the wide scope of information.

We expect same co-operation in future.

Thanking you.

With regards,

  
Mrs. Chavan D.U.  
Subject Incharge

  
Mr. Kolap M.M.  
H.O.D. E&TC. Engg.



# Dr. J. J. Magdum College of Engineering, Jaysingpur

Department of Electronics & Telecommunication Engineering  
HANDS ON EXPERIENCE OF EMBEDDED C

Class: Btech 22-23 Sem-I

10/12/2022

| Roll no | Name of student              |     |     |     |
|---------|------------------------------|-----|-----|-----|
| 1       | Bihar Prasad Tyagi           | RFB | RFB | RFB |
| 2       | Serawale Bhagyashree         | RFB | RFB | RFB |
| 3       | Patil Pratik Dhashyant       | RFB | RFB | RFB |
| 4       | Sutar Nikita                 | RFB | RFB | RFB |
| 5       | Shetti Namrata Sunil         | RFB | RFB | RFB |
| 6       | Kochi Snehal Prabhakar       | RFB | RFB | RFB |
| 7       | Khot Pradya Arun             | RFB | RFB | RFB |
| 8       | Lani Saniya Shakil           | RFB | RFB | RFB |
| 9       | Nadal Saniya Haroon          | RFB | RFB | RFB |
| 10      | Shinge Rameet Balasa         | AB  | AB  | AB  |
| 11      | Kamble Vinesh Vinay          | RFB | RFB | RFB |
| 12      | Chikalakke Dhanappa Somnang  | RFB | RFB | RFB |
| 13      | Patil Komal Bhanudas         | RFB | RFB | RFB |
| 14      | Kate Sneha Sanjay            | RFB | RFB | RFB |
| 15      | Vaidya Omkar Varbhay         | RFB | RFB | RFB |
| 16      | Gurav Tejas Gurudatta        | RFB | RFB | RFB |
| 17      | Reena Babarrao Made          | RFB | RFB | RFB |
| 18      | Gaikwad Shiweta Suryakant    | RFB | RFB | RFB |
| 19      | Patil Gayatri Bharat         | RFB | RFB | RFB |
| 20      | Chavan Mohini Somnath        | RFB | RFB | RFB |
| 21      | Sanket Suresh Bhor           | RFB | RFB | RFB |
| 22      | Patil Rohit Chandrakant      | RFB | RFB | RFB |
| 23      | Patil Chetan Sanjay          | RFB | RFB | RFB |
| 24      | Aniket Patil Thorat          | RFB | RFB | RFB |
| 25      | Kochi Akil Hamir             | RFB | RFB | RFB |
| 26      | Mujawar Tanjeel Mahamadrafik | RFB | RFB | RFB |
| 27      | Jathar Jayesh Sunil          | RFB | RFB | RFB |
| 28      | Sudhir Sale                  | RFB | RFB | RFB |
| 29      | Kore Chaitanya Arvind        | RFB | RFB | RFB |
| 1       | Abhishek Pawar (Etrx)        | RFB | RFB | RFB |
| 2       | KAJAL PATHI                  | RFB | RFB | RFB |



# Dr. J. J. Magdum College of Engineering, Jaysingpur.

Department of Electronics & Telecommunication Engineering.

HANDS ON EXPERIENCE OF EMBEDDED C++

Class: Btech-22-23 Sem: 1

13/12/2022

| Roll no | Name of student               |               |               |               |
|---------|-------------------------------|---------------|---------------|---------------|
| 1       | Heber Pratik Pagar            | J.P.P.        | J.P.P.        | J.P.P.        |
| 2       | Nemavale Dhage Ashvi          | Ashvi         | Ashvi         | Ashvi         |
| 3       | Patil Pratik Dashwand         | Pratik        | Pratik        | Pratik        |
| 4       | Sutar Niketa                  | Niketa        | Niketa        | Niketa        |
| 5       | Shetti Narmada Santal         | Narmada       | Narmada       | Narmada       |
| 6       | Kushni Nishal Prabhakar       | Nishal        | Nishal        | Nishal        |
| 7       | Jethi Pratik Anil             | Pratik        | Pratik        | Pratik        |
| 8       | Jadhav Nishal Shakti          | Nishal        | Nishal        | Nishal        |
| 9       | Nadaf Saranya Harison         | Saranya       | Saranya       | Saranya       |
| 10      | Shinge Ramesh Balasa          | AB            | AB            | AB            |
| 11      | Karole Arunesh Arun           | Arun          | Arun          | Arun          |
| 12      | Chikalakki Dhyanappa Sujanthy | Dhyanappa     | Dhyanappa     | Dhyanappa     |
| 13      | Patil Kunal Bhramada          | Kunal         | Kunal         | Kunal         |
| 14      | Kate Sneha Satya              | Sneha         | Sneha         | Sneha         |
| 15      | Vaidya Omkar Varbrua          | Omkar         | Omkar         | Omkar         |
| 16      | Chavay. Tejas Govindara       | Tejas         | Tejas         | Tejas         |
| 17      | Reena Babanrao Male           | Reena         | Reena         | Reena         |
| 18      | Burkwal Sitweta Suryakant     | Sitweta       | Sitweta       | Sitweta       |
| 19      | Patil Gayatri Bharat          | Gayatri       | Gayatri       | Gayatri       |
| 20      | Chavay Mohan Somanthi         | Mohan         | Mohan         | Mohan         |
| 21      | Sanket Suresh Bhoi            | Sanket        | Sanket        | Sanket        |
| 22      | Patil Rohit Chandrakant       | Rohit         | Rohit         | Rohit         |
| 23      | Patil Chetan Sanjay           | Chetan        | Chetan        | Chetan        |
| 24      | Aniket Patil Thorat           | Aniket        | Aniket        | Aniket        |
| 25      | Kawchi Akil Hanif             | Akil          | Akil          | Akil          |
| 26      | Murawar Tanzeel Mahamudrafi   | T. M. Murawar | T. M. Murawar | T. M. Murawar |
| 27      | Jadhav Jayesh Sunil           | Jayesh        | Jayesh        | Jayesh        |
| 28      | Seelhar Sale                  | Seelhar       | Seelhar       | Seelhar       |
| 29      | Kore Chantanya Arvind         | Arvind        | Arvind        | Arvind        |
| 1       | Abhishek Pawar (J. rex)       | Abhishek      | Abhishek      | Abhishek      |
| 2       | KAROL PATIL                   | KAROL         | KAROL         | KAROL         |





Workshop on "Hands on experience of Embedded C" 13<sup>th</sup> Dec 2022



# Dr. J. J. Magdum College of Engineering, Jaysingpur

Department of Electronics & Telecommunication Engineering

Class-BTech

Date 31.10.2022

| sr.no. | Guide              | Group No. | Roll no | Name of student              | Title of project                                                                 |
|--------|--------------------|-----------|---------|------------------------------|----------------------------------------------------------------------------------|
| 1      | Mrs P.P. Bellagli  | 1         | 1       | BABAR PRASAD POPAT           | Automatic filling and weighing machine                                           |
|        |                    |           | 2       | SONAWALE BHAGYASHREE         |                                                                                  |
| 2      | Mrs. T.H.Mohite    | 2         | 3       | PATIL PRATIK DUSHYANT        | Ambulance tracking with patient health monitoring system using Agriculture Robot |
|        |                    |           | 4       | SUTAR NIKITA                 |                                                                                  |
| 3      | Mr. M.M. Kolap     | 3         | 5       | SHETTI NAMRATA SUNIL         | Agriculture Robot                                                                |
|        |                    |           | 6       | KOSHTI SNEHAL PRABHAKAR      |                                                                                  |
| 4      | Dr.Mahadik S.R.    | 4         | 7       | KHOT PRADNYA ARUN            | Atm Fingerprint System                                                           |
|        |                    |           | 8       | LATIF SANIYA SHAKIL          |                                                                                  |
| 5      | Mr. M.M. Kolap     | 5         | 9       | NADAF SANIYA HAROON          | Smart helmet for bike riders safety                                              |
|        |                    |           | 10      | shinge ranjeet balaso        |                                                                                  |
|        |                    | 6         | 11      | KAMBLE VINESH VIJAY          | Fire Fighting Robot                                                              |
|        |                    |           | 12      | CHIKALAKKI DHANAPPA SOMANING |                                                                                  |
| 7      | Dr. S.B.Patil      | 7         | 13      | PATIL KOMAL BHANUDAS         | traffic control and green corridor generation using drone                        |
|        |                    |           | 14      | KATE SNEHA SANJAY            |                                                                                  |
| 8      | Dr.Mahadik S.R.    | 8         | 15      | VAIDYA OMKAR VAIBHAV         | Labour work monitoring                                                           |
|        |                    |           | 16      | GURAV TEJAS GURUDATTA        |                                                                                  |
| 9      | Mrs. T.H.Mohite    | 9         | 17      | REENA BABANRAO MADE          | cold storage automation                                                          |
|        |                    |           | 18      | GAIKWAD SHWETA SURYAKANT     |                                                                                  |
| 10     | Prof.M.B.Bhilawade | 10        | 19      | PATIL GAYATRI BHARAT         | Using GSM and GPS                                                                |
|        |                    |           | 20      | SOMNATH                      |                                                                                  |
| 11     | Dr. S.B.Patil      | 11        | 21      | SANKET SURESH BHOI           | traffic control and green corridor generation using                              |
|        |                    |           | 22      | PATIL ROHIT CHANDRAKANT      |                                                                                  |
| 12     | Mr. V.T.Kamble     | 12        | 23      | PATIL CHETAN SANJAY          | Electrical power generation through speed breaker                                |
|        |                    |           | 24      | ANIKET PATIL THORAT          |                                                                                  |
| 13     | Mrs.M.U.Phutane    | 13        | 25      | KACCHI AKIL HANIF            | Raspberry Pi Based Intelligent Car Anti-Theft System Through Face Recognition    |
|        |                    |           | 26      | MUJAWAR TANJEEL MAHAMADRAFIK |                                                                                  |
|        |                    |           | 27      | JATHAR JAYESH SUNIL          | Automatic CNC/writing / drawing machine                                          |



|    |                    |    |    |                       |                                                                                       |
|----|--------------------|----|----|-----------------------|---------------------------------------------------------------------------------------|
| 14 | Mrs P.P. Bellagli  | 14 | 28 | SUDHIR SALE           |                                                                                       |
| 15 | Prof.M.B.Bhilawade | 15 | 29 | KORE CHAITANYA ARVIND | <i>Solar tracking system<br/>with auto cutoff battery<br/>ckt and inverter system</i> |
|    |                    |    | 1  | Abhishek Pawar (ETRX) |                                                                                       |
|    |                    |    | 2  |                       |                                                                                       |
|    |                    |    |    |                       |                                                                                       |



**Dr. J. J. Magdum College of Engineering, Jaysingpur**  
**Department of Electronics and Telecommunication Engineering**

Ref: JIMCOE/E&TC/22-23

Date: 21/12/2022

To  
Mr. S.S. Satpute  
Asst. Professor, Computer Dept.  
Dr. JIMCOE, Jaysingpur

Subject: Invitation for Expert lecture

Respected Sir / Madam,

In an attempt to expose our students to practical application of their theoretical knowledge, we propose to arrange expert lecture on 'Files and Pointers in C-Programming' for second year E&TC students. With this reference to above, we would like to invite you for the same on 26/12/22.

Above session will help to attain program outcome PO-4.



Prof. Mrs. Mohite T.H.  
Expert Lecture Co-ordinator



Prof. Kolap M.M.  
H.O.D.  
E&TC and E&TC Engg. Dept.

Received





**Dr. J. J. Magdum College of Engineering, Jaysingpur**  
Department of Electronics and Telecommunication Engineering

Ref. JJMCOE/E (U/21-22/

Date: - 23/12/2022

To,  
Mrs. S.S. Satpute  
Ass. Professor, Computer Dept.  
Dr. JJMCOE, Jaysingpur

Sub: Thanking letter.

Respected Sir/Madam,


We, on behalf of Electronics and Telecommunication Department of our college, hereby express our sincere, thanks for conducting session on 'Files and Pointers in C-Programming' for second year E&TC students on 28<sup>th</sup> December 2022.

The presentation explored the wide scope of information and also cover PO-4.

We expect same co-operation in future.

Thanking you.

  
Prof. Mrs. Mohite T.H.  
Expert Lecture Co-ordinator

  
Prof. Kulkarni M.M.  
H.O.D.  
Electronics and E&TC Dept.





Dr. J. J. Magdum Trust's (No. E/902)

# Dr. J. J. Magdum College of Engineering, Jaysingpur

## Department of Electronics and Telecommunication Engineering

Date-26-12-2022

EXPERT LECTURE FOR SECOND YEAR STUDENTS

NAME OF EXPERT SPEAKER- Mrs.S.S.Satpute

TOPIC- "Files and Pointers in C-Programming"

### ATTENDANCE REPORT

Time-2.30pm to 3.30pm

| Sl.No | Roll no. | Name of Student             | Signature           |
|-------|----------|-----------------------------|---------------------|
| 1     | 71       | Jai Sanjay Raut             | Jai Raut            |
| 2     | 26       | Rohini Sanjay Chigare       | Rohini Chigare      |
| 3     | 12       | Rutuja Suresh Bhandare      | R.S.B.              |
| 4     | 21       | Vaishnavi Sambhaji Jadhav   | Vaishnavi Jadhav    |
| 5     | 19       | Sanika Pandurang Santpal    | Santpal             |
| 6     | 21       | Shraddha Niranjan Tathe     | Shraddha Tathe      |
| 7     | 23       | Sanika Raja Yadav           | Sanika Yadav        |
| 8     | 49       | Rutuja Sanjay mase          | Rutuja Mase         |
| 9     | 59       | Sakshi Shobani Pharakate    | Sakshi Pharakate    |
| 10    | 56       | Samruddhi K. Patil          | Samruddhi Patil     |
| 11    | 9        | Ashay S. Mali               | S.S. Mali           |
| 12    | 10       | Aishwarya N. Mangalwar      | Aishwarya Mangalwar |
| 13    | 81       | Nikita B. Karobhar          | Nikita Karobhar     |
| 14    | 25       | Revati Sumi Halingale       | Revati Halingale    |
| 15    | 64       | Piyusha Santosh Suryawanshi | Piyusha Suryawanshi |
| 16    | 51       | Pragati Pratabhai Patil     | Pragati Patil       |
| 17    | 70       | Zumbha Kavanka Laxman       | Zumbha Kavanka      |
| 18    | 62       | Pratibha Prabhakar Patil    | Pratibha Patil      |
| 19    | 60       | Pratibha Prabhakar Patil    | Pratibha Patil      |
| 20    | 55       | Pratibha Prabhakar Patil    | Pratibha Patil      |
| 21    | 57       | Pratibha Prabhakar Patil    | Pratibha Patil      |
| 22    | 54       | Pratibha Prabhakar Patil    | Pratibha Patil      |
| 23    | 47       | Pratibha Prabhakar Patil    | Pratibha Patil      |
| 24    | 50       | Pratibha Prabhakar Patil    | Pratibha Patil      |
| 25    | 69       | Pratibha Prabhakar Patil    | Pratibha Patil      |
| 26    | 52       | Pratibha Prabhakar Patil    | Pratibha Patil      |

Mrs. S.S. Satpute  
Expert Speaker

Dr. J. J. Magdum  
Expert Lecturer

Prof. Lalap. N. B.  
E&TC, Engg. Dept.





Dr. J. J. Magdum Trust's (No. E/902)

## Dr. J. J. Magdum College of Engineering, Jaysingpur

Department of Electronics and Telecommunication Engineering

Date 26-12-2022

EXPERT LECTURE FOR SECOND YEAR STUDENTS

NAME OF EXPERT SPEAKER- Mrs.S.S.Satpute

TOPIC- "Files and Pointers in C-Programming "

ATTENDANCE REPORT

Time-3.30pm to 3.50pm

| Sr.No | Roll no. | Name of Student             | Signature   |
|-------|----------|-----------------------------|-------------|
| 1     | 31       | Jayesh S. Dore              | [Signature] |
| 2     | 5        | Pushkar D. kadam            | [Signature] |
| 3     | 7        | Yash V. kamble              | [Signature] |
| 4     | 22       | Omkar A Tibile              | [Signature] |
| 5     | 11       | Viraj R. More               | [Signature] |
| 6     | 68       | Samruddhi H. Wagholikar     | [Signature] |
| 7     | 39       | Shweta S. Jadhav            | [Signature] |
| 8     | 30       | Umita P. Dhobate            | [Signature] |
| 9     | 57       | Resham R. Powar             | [Signature] |
| 10    | 12       | Onkar A. Nalawade           | [Signature] |
| 11    | 14       | Shasad S NIKAM              | [Signature] |
| 12    | 18       | Rohan R. Sawant             | [Signature] |
| 13    | 04       | Kaushaly. D. Jadhav.        | [Signature] |
| 14    | 01       | Vaibhav. S. chavan          | [Signature] |
| 15    | 02       | Devi Jay Subhash Divate     | [Signature] |
| 16    | 03       | Sumit S. Hajare             | [Signature] |
| 17    | 37       | Pranav Subhash D.           | [Signature] |
| 18    | 34       | Ghage Prakash Rajendra      | [Signature] |
| 19    | 27       | Shubham Ananda Patil        | [Signature] |
| 20    | 65       | Nikhil Anil Vaidya          | [Signature] |
| 21    | 58       | Rudraj Nitin Chitambar      | [Signature] |
| 22    | 73       | Hassan Mansoor Ahmad Dhapre | [Signature] |
| 23    | 44       | Aditya Balasubrah Kambale   | [Signature] |
| 24    | 52       | D. P. ...                   | [Signature] |
| 25    | 55       | ...                         | [Signature] |
| 26    | 57       | ...                         | [Signature] |

Mrs. S.S. Satpute  
Expert Speaker

Mrs. Madhu ...  
Expert Lecture Co-ordinator

E&TE. Engg. Dept.





Dr. J. J. Magdum Trust's (No. E/902)

# Dr. J. J. Magdum College of Engineering, Jaysingpur

## Department of Electronics and Telecommunication Engineering

Date-30-12-2022

EXPERT LECTURE FOR SECOND YEAR STUDENTS

NAME OF EXPERT SPEAKER- Mrs.S.S.Satpute  
TOPIC- "Files and Pointers in C-Programming"

### ATTENDANCE REPORT

Time-2.30pm to 3.30pm

| Sr.No | Roll no. | Name of Student          | Signature       |
|-------|----------|--------------------------|-----------------|
| 1     | 52       | Sakshi Vijay Surawade    | Sakshi          |
| 2     | 70       | Priyanka Jayaram Zambre  | Priyanka        |
| 3     | 54       | Sakshi Prakash Patil     | Sakshi          |
| 4     | 47       | Pralibha Raju Khate      | Pralibha        |
| 5     | 60       | Divya Kuvikurji Yelkar   | Divya           |
| 6     | 55       | Pratik Sakshi Sandip     | Pratik          |
| 7     | 50       | Mare Rushika Anjan       | Mare            |
| 8     | 59       | Pharukate Sakshi Shahaji | Sakshi P        |
| 9     | 56       | Sammudhi Khanderao Patil | Sammudhi        |
| 10    | 18       | Rohan R Sawant           | Rohan           |
| 11    | 02       | Darshan S. Divake        | Darshan         |
| 12    | 04       | Kaushaly D. Jadhav       | Kaushaly        |
| 13    | 01       | Vaibhav S. Chavan        | Vaibhav         |
| 14    | 03       | Sumit S. Hajare          | Sumit           |
| 15    | 9        | Shayali S. Mall          | Shayali S. Mall |
| 16    | 10       | Ashwini S. Mall          | Ashwini S. Mall |
| 17    | 17       | Siddhi S. Hajare         | Siddhi          |
| 18    |          |                          |                 |
| 19    |          |                          |                 |
| 20    |          |                          |                 |
| 21    |          |                          |                 |
| 22    |          |                          |                 |
| 23    |          |                          |                 |
| 24    |          |                          |                 |
| 25    |          |                          |                 |
| 26    |          |                          |                 |
| 27    |          |                          |                 |

Mrs. S. S. Satpute  
Expert Speaker

Mrs. S. S. Satpute  
Expert Lecturer/Coordinator

Dr. J. J. Magdum  
1-01  
E&TC-Engg.Dept.



**Dr. J. J. Magdum College of Engineering, Jaysingpur**  
Department of Electronics and Telecommunication Engineering

Ref: JIMCOE/E&TC/22-23/

Date: 21/11/2022

To,  
Mrs. M.M. Raste  
Ass. Professor,  
P.V.P.I.T, Budhgao

Subject: Invitation for Expert lecture

Respected Madam,

In an attempt to expose our students to practical application of their theoretical knowledge, we propose to arrange expert lecture on 'Recent technologies in Optical Communication' for third year E&TC students. With this reference to above, we would like to invite you for the same on 25/11/22.

Above session will help to attain program outcome PO-4.

*T.H. Mohite*  
21-11-2022  
Prof. T.H. Mohite

Expert Lecture Co-ordinator



*M.M. Raste*  
Mr. Kojan M.M.

HOD  
Electronics and E&TC Dept.



**Dr. J. J. Magdum College of Engineering, Jaysingpur**  
**Department of Electronics and Telecommunication Engineering**

Ref:JMCOE/ETC/21/22

Date: 25/11/2022

To,  
Mrs.M.M.Raste  
Ass.Professor,  
P.V.P.LT,  
Budhgauin.

Sub: Thanking letter.

Respected Sir/Madam,

We, on behalf of Electronics and ETC Department of our college, hereby express our sincere, thanks for conducting session on 'Recent Technologies in optical communication' for third year E&TC students. The presentation explored the wide scope of information and also cover PO-3.

We expect same co-operation in future.

Thanking you.

*M.M.Raste*  
25/11/22  
Mrs. Mohite J.J.  
Expert Lecture Co-ordinator

*M.M.Raste*  
MR. KONDUMUM  
H.O.D.  
Dept. of E&TC, Budhgauin





Dr. J. J. Magdum Trust's (No. E/902)

# Dr. J. J. Magdum College of Engineering, Jaysingpur

## Department of Electronics and Telecommunication Engineering

Date-25-11-2022

EXPERT LECTURE FOR THIRD YEAR STUDENTS

NAME OF EXPERT SPEAKER- Mrs M.M.Raste

TOPIC- "Recent Technologies in optical communication"

### ATTENDANCE REPORT

Time-2.30pm to 4.30pm

| Sr.No | Roll no. | Name of Student       | Signature |
|-------|----------|-----------------------|-----------|
| 1     | 7        | Pradnya Sunjay Chavan | Pradnya   |
| 2     | 9        | Arshita Sujali Asun   | Arshita   |
| 3     | 12       | Vishal P. Patil       | Vishal    |
| 4     | 35       | Poojali S. Kelgude    | Poojali   |
| 5     | 29       | Sardar Richha Asun    | Sardar    |
| 6     | 14       | Vishakha D. Sardar    | Vishakha  |
| 7     |          | Shweta S. Bhat        | Shweta    |
| 8     |          | Manoj Chikkodi        | Manoj     |
| 9     |          | Anita R. Patil        | Anita     |
| 10    |          | Harshada P. Magdum    | Harshada  |
| 11    |          | Sanika Patil          | Sanika    |
| 12    |          | Chivete Shanti        | Chivete   |
| 13    |          | Rohit C. Sastri       | Rohit     |
| 14    |          | Yash Karde            | Yash      |
| 15    |          | Swetha S. Patil       | Swetha    |
| 16    |          | Tanisha D. Patil      | Tanisha   |
| 17    |          | Joshi Kedar           | Joshi     |
| 18    |          | Pratikha S. Patil     | Pratikha  |
| 19    |          | Chaitanya S. Patil    | Chaitanya |
| 20    |          | Chaitanya S. Patil    | Chaitanya |
| 21    |          | Chaitanya S. Patil    | Chaitanya |
| 22    |          | Chaitanya S. Patil    | Chaitanya |
| 23    |          | Chaitanya S. Patil    | Chaitanya |
| 24    |          | Chaitanya S. Patil    | Chaitanya |
| 25    |          | Chaitanya S. Patil    | Chaitanya |

Mrs M.M.Raste  
Expert Speaker

Prof. M.M.Raste  
Expert Lecture Co-ordinator

Prof. Kotap M.M.  
H.O.D.  
E&TC, Engg Dept.



**Dr. J. J. Magdum College of Engineering, Jaysingpur**  
Department of Electronics and Telecommunication Engineering

Ref: JMC/OF/E&TC/22-23

Date: 21/11/2022

To,  
Mr. Ashwin Gadgil  
H.M. Electronics,  
M.raj.

Subject: Invitation for Expert lecture

Respected Sir/Madam,

In an attempt to expose our students to practical application of their theoretical knowledge, we propose to arrange expert lecture on 'SCADA technologies for third year E&TC students. With this reference to above, we would like to invite you for the same on 25/11/22.

Above session will help to attain program outcome PO-3.

  
Prof. T.H. Mohite

Expert lecture Co-ordinator

  
Mr. Kolap M.M.

F.O.D.  
Elex and E&TC dept.





**Dr. J. J. Magdum College of Engineering, Jaysingpur**  
Department of Electronics and Telecommunication Engineering

REC/MCOE/ETC/21-22

Date: 21/11/2022

To,  
Mr. Ashwin Gadgil  
Director,  
Hem Electronics,  
Miraj.


Sub: Thanking letter.

Respected Sir/Madam,

We, on behalf of Electronics and ETC Department of our college, hereby express our sincere thanks for conducting session on 'Scada Technologies' for 30th Nov 2022. The presentation explored the wide scope of information and also covers PO-3.

We expect same co-operation in future.

Thanking you.

  
Mrs. Mohita T.H.  
Expert Lecture Coordinator





Dr. J. J. Magdum Trust's (No. E/902)

# Dr. J. J. Magdum College of Engineering, Jaysingpur

Department of Electronics and Telecommunication Engineering

Date-25-11-2022

## EXPERT LECTURE FOR THIRD YEAR STUDENTS

### TOPIC- "SCADA TECHNOLOGIES"

#### Attendance report

| Sr.No | Name of Student         | Signature    |
|-------|-------------------------|--------------|
| 49    | Krushikant Koli         |              |
| 15    | Ashad Mulani            | A. M. Mulani |
| 16    | Pranav Chauhan          |              |
| 56    | Sangeetha Gode          |              |
| 43    | A. K. Muller            |              |
| 20    | Kavayit Hirdle          |              |
| 1     | S. Sanyal N. Grandhawal |              |
| 2     | P. Sanyal D. Jagdale    |              |
| 50    | Jadhav Rohit V.         |              |
| 30    | Pratik Chougwe          |              |
| 13    | Varun Kulkarni          |              |
| 23    | Yash S. Renuke          |              |
| 37    | Govinda Jagdish Gaikwad |              |
| 12    | Balkrushna D. Kekarhor  |              |
| 98    | Sunand A. Kole          | S. A. Kole   |
| 34    | Rohit E. Saste          |              |
| 56    | Nirav A. Chikandi       |              |
| 1     | S. Sanyal N. Grandhawal |              |
| 1     | P. Sanyal D. Jagdale    |              |
| 41    | S. Sanyal N. Grandhawal |              |
| 52    | P. Sanyal D. Jagdale    |              |
| 71    | Chandra A. In           |              |
| 13    | Varun Kulkarni          |              |
| 23    | Yash S. Renuke          |              |
| 37    | Govinda Jagdish Gaikwad |              |
| 12    | Balkrushna D. Kekarhor  |              |
| 98    | Sunand A. Kole          |              |
| 34    | Rohit E. Saste          |              |

Expert Lecture Coordinator

H.O.D.  
E&TC Engg. Dept.







Dr. J. J. Magdum College of Engineering, Jaysingpur

Paper Publication by Students 2022-23

| Sr.No.               | Name Of Students                                        | Title Of Paper                                                                                            | Publication Date                           | Acad. mic Year |
|----------------------|---------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|--------------------------------------------|----------------|
| 1<br>2               | Akil Hanif<br>Kacchi<br>Tanjil Mujawar                  | Face Recognition<br>based intelligent<br>car anti-theft<br>system using<br>Raspberry Pi and<br>GSM module | IRIMETS Volume<br>05, Issue 04, April 2023 | 2022-23        |
| 3<br>4               | Nikita Sutar<br>Pratik Patil                            | Ambulance<br>Tracking with<br>Patient Health<br>Monitoring<br>System Using<br>GPS and GSM<br>Module       | IJRPR Volume<br>4, Issue 5, 2023           | 2022-23        |
| 5<br>6               | Namrata Shetti<br>Snehal koshti                         | Design &<br>Operation of<br>Agriculture<br>Based Pesticide<br>Spraying &<br>Grass Cutting<br>Robot        | IJRPR Volume<br>4, Issue 5, 2023           | 2022-23        |
| 7<br>8               | Pradnya Khot<br>Saniya Latif                            | IOT Based Smart<br>Locker System                                                                          | IJRPR Volume<br>4, Issue 5, 2023           | 2022-23        |
| 9<br>10              | Saniya Nadaf<br>Ranjeet Shinge                          | IOT Based Smart<br>Helmet                                                                                 | IJRPR Volume<br>4, Issue 5, 2023           | 2022-23        |
| 11<br>12             | Vinesh Kamble<br>Dhanappa<br>Chikkalaki                 | Fire Fighting<br>Robot                                                                                    | NCETET-2023                                | 2022-23        |
| 13<br>14<br>15<br>16 | Komal Patil<br>Rohit Patil<br>Sanket Bhoi<br>Sneha Kate | Traffic Control<br>and Green<br>Corridor using<br>Unmanned<br>Aerial<br>Vehicles(Drones)                  | NCETET-2023                                | 2022-23        |
| 17<br>18             | Omkar Vaidya<br>Tejas Gurav                             | Labour Work<br>Monitoring<br>System                                                                       | IJRPR Volume<br>4, Issue 5, 2023           | 2022-23        |
| 19<br>20             | Renna Made<br>Shweta<br>Gaikwad                         | Cold Automation<br>Storage                                                                                | IJRPR Volume<br>4, Issue 5, 2023           | 2022-23        |
| 21<br>22             | Gayatri Patil<br>Mohini Chavan                          | Advance BUS<br>Ticketing System                                                                           | IJRPR Volume<br>4, Issue 5, 2023           | 2022-23        |





Department of Electrical and E & TC Engineering

Student Participation in Technical Event (Project Competition) 2022-23

| Sl. No.              | Name Of Students                                        | Name of Project                                                                            | Event name                                              | Academic Year |
|----------------------|---------------------------------------------------------|--------------------------------------------------------------------------------------------|---------------------------------------------------------|---------------|
| 1<br>2               | Akil Hanif Kacchi<br>Tarijil Mujawar                    | Face Recognition based intelligent car anti-theft system using Raspberry Pi and GSM module | INNOVAT ON 2k23 (SIT Yadrav) 1 <sup>st</sup> April 2023 | 2022-23       |
| 3<br>4               | Nikita Sutar<br>Pratik Patil                            | Ambulance Tracking with Patient Health Monitoring System Using GPS and GSM Module          | Spectrum 2K23 (AGTI'S) 21 <sup>st</sup> March 2023      | 2022-23       |
| 5<br>6               | Namrata Shetti<br>Snehal koshti                         | Design & Operation of Agriculture Based Pesticide Spraying & Grass Cutting Robot           | Spectrum 2K23 (AGTI'S) 21 <sup>st</sup> March 2023      | 2022-23       |
| 7<br>8               | Pradnya Khot<br>Saniya Latif                            | IOT Based Smart Locker System                                                              | Spectrum 2K23 (AGTI'S) 21 <sup>st</sup> March 2023      | 2022-23       |
| 9                    | Saniya Nadaf                                            | IOT Based Smart Helmet                                                                     | INNOVATION 2k23 (SIT Yadrav) 1 <sup>st</sup> April 2023 | 2022-23       |
| 10<br>11<br>12<br>13 | Komal Patil<br>Rohit Patil<br>Sanket Bhoi<br>Sneha Kate | Traffic Control and Green Corridor using Unmanned Aerial Vechicles(Drones)                 | Spectrum 2K23 (AGTI'S) 21 <sup>st</sup> March 2023      | 2022-23       |
| 14<br>15             | Omkar Vaidya<br>Tejas Gurav                             | Labour Work Monitoring System                                                              | INNOVATION 2k23 (SIT Yadrav) 1 <sup>st</sup> April 2023 | 2022-23       |
| 16<br>17             | Reena Madc<br>Shweta Gaikwad                            | Cold Automation Storage                                                                    | INNOVATION 2k23 (SIT Yadrav) 1 <sup>st</sup> April 2023 | 2022-23       |
| 18<br>19             | Gayatri Patil<br>Mohini Chavan                          | Advance BUS Ticketing System                                                               | INNOVATION 2k23 (SIT Yadrav) 1 <sup>st</sup> April 2023 | 2022-23       |
| 20<br>21             | Aniket Patil<br>Chetan Patil                            | Speed Braker through Power Generation                                                      | INNOVATION 2k23 (SIT Yadrav) 1 <sup>st</sup> April 2023 | 2022-23       |
| 22<br>23             | Prasad Babar<br>Bhagyashree Sonawale                    | Automatic Filling and Weighing Machine                                                     | Spectrum 2K23 (AGTI'S) 21 <sup>st</sup> March 2023      | 2022-23       |

*Wade*  
Coordinator



Group No - 01



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# Certificate

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of JYMCCE has secured - / Participated in

Poster Presentation on Innovative Ideas / Robo, Hosta / Paper Presentation / Project Competition / Code War /

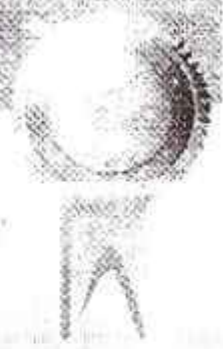
Here/Me event Organised in "Spectrum 2K23" under Lead College Scheme of Shivaji University, Kolhapur

held on 21<sup>st</sup> March, 2023 at AGTI'S, Dr. Daulatrao Aher College of Engineering, Karad.

  
Prof. A. D. Awasare  
Co-Ordinator

  
Prof. H. M. Kumbhar  
Vice Principal

  
Dr. A. M. Mulla  
Principal



International Research Journal of Modernization  
in Engineering Technology and Science

e-ISSN: 2582-5208

Ref: IRJMETS/Certificate/Volume 05/Issue 04/50400164528

Date: 02-03-2023

### Certificate of Publication

This is to certify that author "Akill Hanif Kacchi" with paper ID "IRJMETS50400164528" has published a paper entitled "FACE RECOGNITION-BASED INTELLIGENT CAR ANTI-THEFT SYSTEM USING RASPBERRY PI AND GSM MODULE" in International Research Journal Of Modernization In Engineering Technology And Science (IRJMETS), Volume 05, Issue 04, April 2023

*A. Deenai*

Editor in Chief



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during **INNOVATION-2K23** held on Saturday, 1<sup>st</sup> April, 2023. **INNOVATION-2K23** team

*Shardha Salunke*

**Mrs. Sharda Salunke**  
Event Convener

*Dr. Sanjay A. Khot*

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**Mrs. Sharda Salunkhe**  
Event Convener

*Dr. Sanjay A. Khot*

**Dr. Sanjay A. Khot**  
Principals

*Hon. Shri. Anil A. Bagane*

**Hon. Shri. Anil A. Bagane**  
Executive Director

## FACE RECOGNITION-BASED INTELLIGENT CAR ANTI-THEFT SYSTEM USING RASPBERRY PI AND GSM MODULE

Prof. M. U. Phitane<sup>1</sup>, Akhil Hanif Kacchi<sup>2</sup>, Tanjeel Mahamadrafik Mujawar<sup>3</sup>

<sup>1</sup>Professor, Dept. of Electronics and Telecommunication, Dr. J. J. Magdum College of Engineering, Jaysingpur, Maharashtra, India.

<sup>2,3</sup>Student, Dept. of Electronics and Telecommunication, Dr. J. J. Magdum College of Engineering Jaysingpur, Maharashtra, India.

### ABSTRACT

Nowadays everyone has a car in the world, everyone wants to have a car, as the number of vehicles is increasing, the risk of theft vehicles is also increasing. The online report shows that in the last year (2022) around 10 lakh vehicles have been stolen, this is a very serious problem, no one wants his car to be stolen, and there is fear in the car owner that the car will be stolen. To overcome this problem, we have developed a system in which the vehicle will not start without its owner. This system image processing-based image processing-based real-time vehicle theft detection and prevention system provides the ultimate solution for this problem. In this paper, we describe the system which we designed at a low cost and this is an extendable framework, which includes FDS (Face Detection Subsystem), a GSM (Global System for Mobile Communications) module, and a control platform.

**Keywords:** Raspberry Pi, Face Detection System, GSM USB Camera.

### I. INTRODUCTION

The objective of this system is to deliver security to the car by using face detection and to control the vehicle from any place by igniting the engine. Smart car security system using real-time face recognition is a real-world application that comes with the day-to-day activities of drivers. From this, we have developed a system, by using a system the owner of the vehicle can save his vehicle from being stolen. This system can provide the important functions required by advanced intelligent car security, to avoid vehicle theft and protect from the usage of unauthenticated owners. With this system, we can know who tried to steal the car we have the photos of the theft in the system database. This project will help us demote the complexity, enhance security, and be much more affordable and smarter than traditional ones. Project results show that it takes about one photo 320\*240 color jpeg image by software that is running on Raspberry Pi. It seems to be too long to be used in real-time detection.

### II. METHODOLOGY

Numerous masses are intimate with face detection technology through the Face ID used to unlock phones and other smart devices, and facial attributes are probably the most common biometric features used by humans to recognize one another. The applications of facial recognition range from static, controlled authentication to dynamic, uncontrolled face identification in a cluttered background. Usually, facial recognition does not stand on a hefty database of photos to determine an individual's identity - it simply locates and recognizes one person as the owner of the device, while limiting access to others. While the authentication performance of the face recognition systems that are marketable available is reasonable, they impose several restrictions on how the facial images are obtained, often requiring a fixed and simple background with controlled illumination. One GSM module is added to the car security system to achieve important information about cars. GSM modem can rapidly send SMS messages to a set mobile phone or SMS server. So, the car owner and the police can be informed of the initial time. The Raspberry Pi is a series of credit card-sized single-board computers.

#### Face detection:

The camera detects and locates the image of a face, either alone or in a crowd. The image may show the person looking straight ahead or in profile.

#### Converting the image to data:

The face-capture process transforms analog information (a face) into a set of digital data based on the person's facial features.



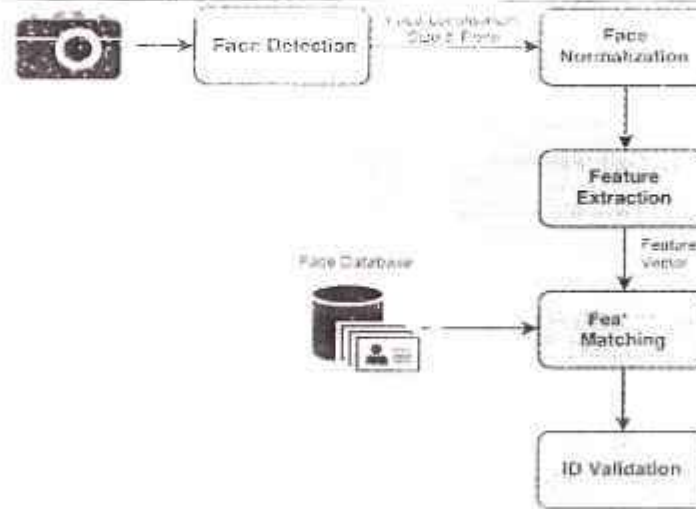


Fig.2. System flow diagram

**Steps Involved in Algorithm**

1. Get a training set of images.
2. Detect the face of all training images
3. Input these images as a training set into the face recognition stage.
4. Compute weight vector for input training set using Haar Cascade
5. Give a new test image
6. Determine whether the new image is authenticated or not using Haar Cascade
7. If the driver is not authenticated, an SMS is sent and the vehicle Ignition is off.
8. If the driver is authenticated, no alert.
9. Store the Driver's name, date, and time in a database file.

**GSM module:**

GSM Module is a device that can send/receive SMS or make the call automatically. It can be connected to any of the microcontrollers/raspberry pi. In case of any unauthorized driver trying to start the car, the system can send a message to the car owner in the

**OpenCV:**

Open CV (Open-Source Computer Vision) is a library of programming functions mainly used for real-time computer vision. Open CV is written in C++. There are bindings in Python, Java, and MATLAB/OCTAVIAA. Here the open CV is used for processing the given image and for comparing the image.

**IV. RESULTS AND DISCUSSION**

The main working principle of the project is, into the image to detect and recognize it. Further, the recognized image of the driver is compared with the image in the database, and then the vehicle will start or else it will not start. The program for face detection is coded using Python language. This program is run on Raspberry Pi. The image of the person is captured immediately by the USB camera.

**V. CONCLUSION**

From this, we have developed theft control techniques that can furnish the major functions required for advanced intelligent Car Security, to avoid vehicles from getting stolen from theft and protect them from the usage of doubtful users. A secure and safe environment system for the vehicle owner and the investigators' key points can be easily found with the thefts image. We can predict theft by using this system in our day-to-day life. This work will help to reduce the convolution and enhance security, and also be much more reasonable and smarter than traditional ones. Experiment results show that it takes about 6 seconds to detect one 2 color .jpeg image by software that is functioning on Raspberry Pi. It seems to be too long to be used in real time detection.



(Advanced Bus ticketing system)

Group No. - 10



Shri. G. Anand Patil (Principal) (Educational) & Charitable Trusts

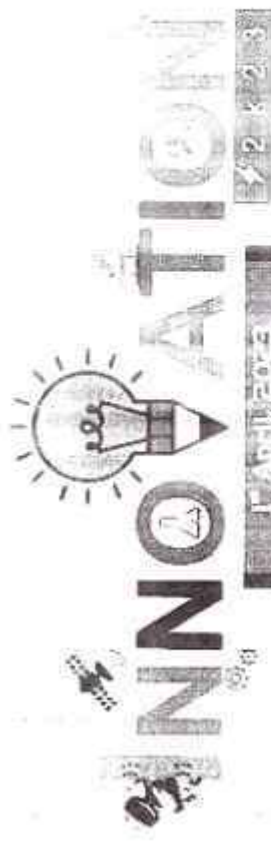
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## Certificate of Acceptance & Publication

*This certificate is awarded to Prof. M. B. Bhilawade, and certifies the acceptance for publication of research paper entitled "Advanced Bus Ticketing System" in "International Journal of Research Publication and Reviews", Volume 4, Issue 4, 2023.*

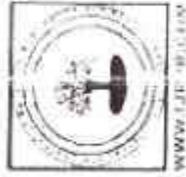


Signed

*Wahid Aghwal*

Date 24/04/2023

Editor-in-Chief  
International Journal of Research Publication and Reviews



# International Journal of Research Publication and Reviews

(Open Access, Peer Reviewed, International Journal)

ISSN 2582-7421

Sr. No: IJRPR 53687

## Certificate of Acceptance & Publication

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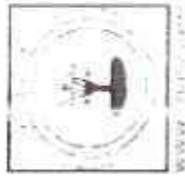
*Anusha Agarwal*

Signed

Editor-in-Chief

International Journal of Research Publication and Reviews

Date 24/04/2023



# International Journal of Research Publication and Reviews

(Open Access, Peer Reviewed, International Journal)

(A+ Grade, Impact Factor 5.536)

ISSN :582-7421

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*Dr. Mohini Chavan*

Signed

Date 24/04/2023

Editor-in-Chief

International Journal of Research Publication and Reviews





## Advanced Bus Ticketing System

Prof. M. B. Bhilawade<sup>1</sup>, Gayatri Bharat Patil<sup>2</sup>, Mohini Somnath Chavan<sup>3</sup>

<sup>1,2,3</sup>Dep. of Electronics & Telecommunication, Dr. J. J. Magdum College of Engineering, Jalgaon, Maharashtra, India

### ABSTRACT:

The use of bus traveling is a large growing business in all countries. The manual use of bus reservation is presently very irksome and also consumes a lot of time by having to stay in a long queue. For

the reason, an efficient reservation system is to be proposed in this paper to ease the usage of bus reservation amongst

major cities within the country. The system is a web-based application that allows users to check bus

availability, buy and pay bus ticket online, checking our route where we travel, Accident detection and emergency service (Bus) and monitoring during the all transactions posted via email with alert to the customer as well as the bus operators.

Online ticket booking reduced the scope of annotation to choose efficient options based on their travel intention. Online booking could be extended to other entertainment and touristic sites and their facilities access to major points.

of interest within cases, making online reservation more convenient to consider. In this paper, the proposed Advanced bus ticket system was developed using HTML, Text Markup Language (HTML), Cascading Style Sheet (CSS), JavaScript, Embedded C++ using IoT, protocol for designing PCB.

**Keywords:** Bus Reservation, Queue, Efficient.

### INTRODUCTION

A proper and systematic public transport plays a major role in economic development and well being of the people in any country. But public transport in most of the developing countries is not running properly because of the lack of systematic planning and monitoring. In this project, we are planning to monitor operations of bus transportation systems. We propose use of minimal information, i.e. record of arrival time of the buses at the bus-stops, for improvement of bus transportation system. Public Transport is one of the important infrastructures of any country. In developing countries, the India Bus transport consists of 90% of public transport.

However, lack of systematic mechanism to monitor and manage the bus network is leading to lack of predictability of the bus network. It gets difficult to identify causes behind delays, to predict the arrival times. This transport system faces the ever increasing problem of traffic and congestion. The operations of public transport can be significantly improved by monitoring the bus operations and analyzing them in perspective of individual route to the travelers and bus operating authorities. We propose the use of advanced wireless technologies for automated monitoring of bus operations. The monitoring data thus collected provides information about arrival time of buses at bus-stops all over the deployment area.

### LITERATURE SURVEY:

#### 1) Empowering Bus Transportation System Using Wireless Sensor Networks

Indian Institute of Technology, Kharagpur, India, Transportation Development and Design Centre, Pune, India

Public transport is one of the major modes of mass commuting in a developing country like India. It has the potential to improve the quality of life. However, lack of systematic mechanism to monitor and manage the bus network is leading to lack of predictability of the bus network. It gets difficult to identify causes behind delays, to predict the arrival times. Bus transport system faces the ever increasing problem of traffic and congestion. The operations of public transport can be significantly improved by monitoring the bus operations and analyzing them in perspective of individual route to the travelers and bus operating authorities. We propose the use of advanced wireless technologies for automated monitoring of bus operations. We suggest that potential analysis can be performed on a comprehensive scale. For this purpose, a web-based reservation system is to be proposed in this paper to ease the usage of bus reservation amongst major cities within the country. The system is a web-based application that allows users to check bus availability, buy and pay bus ticket online, checking our route where we travel, Accident detection and emergency service (Bus) and monitoring during the all transactions posted via email with alert to the customer as well as the bus operators. Online ticket booking reduced the scope of annotation to choose efficient options based on their travel intention. Online booking could be extended to other entertainment and touristic sites and their facilities access to major points. In this paper, the proposed Advanced bus ticket system was developed using HTML, Text Markup Language (HTML), Cascading Style Sheet (CSS), JavaScript, Embedded C++ using IoT, protocol for designing PCB.





System performance is also found to be satisfactory. This is a user-friendly application. Through this application, the cost can be reduced and efficiency is increased. There are several procedures that can be selected by customers.

#### FUTURE SCOPE:

- Display system at every bus stop
- Making information available on mobiles

#### REFERENCES:

- [1] Empowering Bus Transportation System Using Wireless Sensor Networks Indian Institute of Technology, Kharagpur, India ISBN 3-900651-97-0
- [2] Design a Smart Bus System Dept. Electrical and Computer Engineering University of Victoria, ELEC 399.
- [3] A. Jaganlar, "Rationalizing and Reforming Bus routes - case study," in <http://psia.in/en/discuss/forums/2008/07/rationalizing-and-reforming-bus-routes-case-study>, 2008.
- [4] J. Ovwu, F. Alkazar, and B. E. K. Prah, "Towards Improving Road Traffic Data Collection: The Use of GPS/GIS," in FIG Regional Conference, 2006.
- [5] A. Rahmat, L. Zhou, M. Haseem, and R. Jara, "Reliability Techniques for RFID-Based Object Tracking Applications," in DBSN, 2007.
- [6] B. A. Haran and H. Halb, "Bus Management System Using RFID In WSN" in EMCIS, 2010.





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*[Signature]*

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Mrs. Sharda Salunkhe  
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## Cold Automation Storage

**Prof. T. H. Mohite<sup>1</sup>, Reena Babanrao Made<sup>2</sup>, Shweta Suryakant Gaikwad<sup>3</sup>**

<sup>1,2,3</sup>Dep. of Electronics & Telecommunication, Dr. J.J Magdum College of Engineering, Jaysingpur, Maharashtra, India

### ABSTRACT:

Cold chain is one of the important tools for farmers of perishable produce, pharmaceutical to connect with markets and to realize meaningful productivity. A dearth of continuous electricity, absence of any warning systems, and labour power add to the troubles of cold storage owners. A smart IoT connected device which acts as data acquisition device and a controller solves the problem. Food spoilage and subsequent imports can be reduced by modernization of storage and warehousing facilities through industrial automation and remote control systems. But due to lack of technology and ignorance about humidity and temperature effects on raw foods, many times, food safety is not maintained well enough. In food industry, cold storage is a must; this kind of storage is to preserving the raw foods within for a certain period of time. For Food or Agro industries (manufacturing of the foods or materials which are rotten able are subject to constant monitoring; if just a simple thing goes wrong then it can become a result of a big loss. A home grown solution to industrial automation that is cost, energy, and resource efficient with standard automation, control and communication features.

### INTRODUCTION

Food is considered as one of the essential things for our lives. It is important to reduce food waste and increase the production-consumption ratio. Storage and warehouse are very important part of industry, as they are the source for providing raw material to major industries by storing in the preserving for long time. Continuous growth in the cold chain management has been reflected in the growth of globalization. Shortage of government owned cold storages and cold storages owned by mostly the upper-class people in towns, making it unavailable for the poor or low-class farmers. A storage facility should maintain the proper environmental conditions of the stored Product. For instance to store fruits, low temperature, in order to maintain quality, improve their shelf life and extend marketing period of fruits to control of environmental studies. Quality of fruits and vegetables has huge impact of surrounding during storage, we can only maintain the quality of fruits and vegetables therefore it is important to store it in proper ecosystem. For storage of food items in a cold storage various measurements are required to record the temperature, humidity and other factors in different parts large cold storage to make the automation work effectively. A proper storage mechanism should be incorporated to avoid the food wastage. Demand can irrespective of seasons which in turn avoids fluctuation in price of the product. For the optimization and for enhancement of working condition of cold storage, it is necessary to be automated. Due to automation it results in increase in product marketing and increase in profit of companies, for this purpose automation of cold storage is necessary.

### LITERATURE SURVEY:

1. This paper outlines a remote monitoring system of temperature, humidity, gas and light control for cold storage warehouses. Food spoilage and subsequent imports can be reduced by modernization of storage and warehousing facilities through industrial automation and remote control systems. A home grown solution to industrial automation that is cost, energy, and resource efficient with standard automation, control and communication features has been developed and presented in this paper. Experimental results reveal the scalability, objectivity, accuracy, stability, economy and ease of deployment of developed system.

2. K. Zhang and J. Liu, Study on Human-simulated Intelligent Control Method of Fruit & Vegetable Cold Storage, 2009.

Food spoilage and subsequent imports can be reduced by modernization of storage and warehousing facilities through industrial automation and remote control systems. A home grown solution to industrial automation that is cost, energy, and resource efficient with standard automation, control and communication features has been developed and presented in this paper. Experimental results reveal the scalability, objectivity, accuracy, stability, economy and ease of deployment of developed system.

3. Abul-Attiyah Elmasri & Song-Rae Lee, (2011) "IoT - Internet of Things: Monitoring of Cold Chain using wireless sensor network and geographical information system". In International Electronic Conference on Wireless and Open Access. The Internet of Things could give more research field which connect the physical world objects to the internet and allowing easy access to those objects in order to monitor and manage them. The objects are equipped with unique identifiers and capability to transfer data over network without the intervention of humans and traditional computers. Wireless play a major role in this paradigm is relating the physical objects to the internet. This paper explores the idea of IoT to enable the monitoring of cold



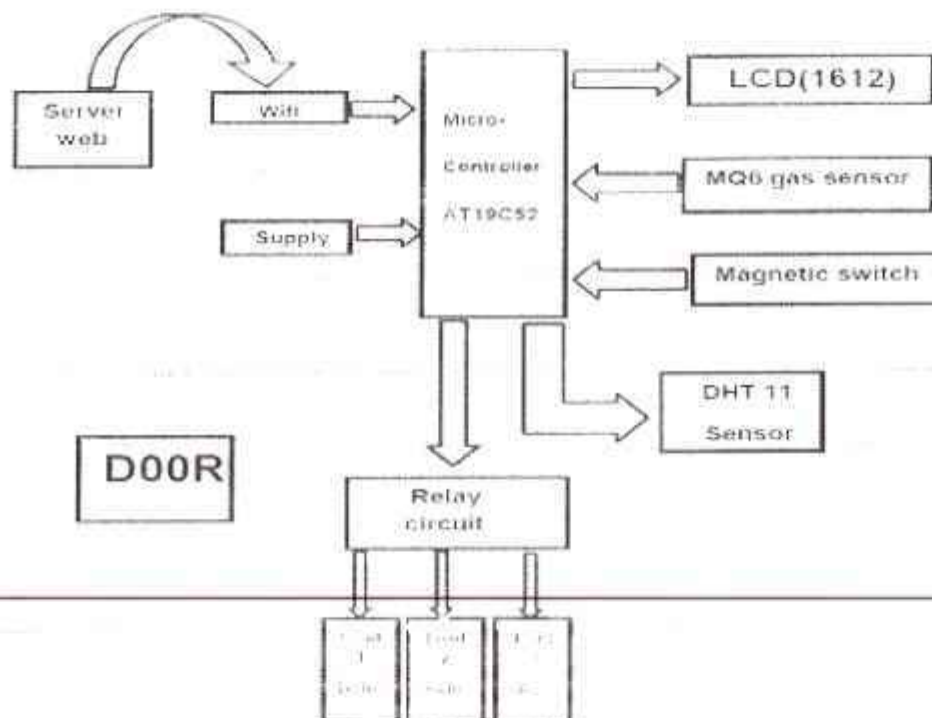


supply chain through the deployment of wireless sensor network in logistics and cold storage facilities and integrating them to the Nively sensor cloud for a complete monitoring and end-to-end visibility.

4. R. Freitas, J. Soares, V. Vieira, J. MacInnis, "Monitoring and Control of a Cooling System in a Commercial Store," *The world's congress on engineering*, vol. II, June 30-July 2 2010, London, UK. This paper presents a case-study for the optimization, the monitoring and the automatic control of a refrigeration system in a commercial store. The existing controllers were replaced by Omron temperature controllers, connected to an industrial network and linked to a central computer for data monitoring and temperature control using a Lab View software. In case of an alarm occurrence, this system includes a routine that automatically sends a GSM message to alert the person responsible for the store. This functionality is not yet available in commercial systems.

5. Keo, P. S., & Ho, H. Y. (2016). An IoT-based Occupational Safety Management System in Cold Storage Facilities. In the contemporary strategy of cold chain logistics, cold storage plays an important role to keep the inventory under the extreme environmental conditions. As the demand of cold storage services is growing rapidly nowadays, attention paid on occupational safety of warehouse workers is increasing under extreme working environment. Traditionally, the safety of workers are assessed by their experience and personal judgement. Without automatic data capturing tools, it is hard to monitor the actual health status of workers who may be diagnosed when working too long in the cold storage facilities. In addition, there is a lack of prompt signal to managers and first-aid teams for instant treatment when the workers get cold injured or illnesses. Therefore, the real-time health monitoring and positioning of the workers are in need. Nowadays, Internet of Things (IoT) is a mean of real-time interconnection system in which target objects are equipped with the identifying and sensing technologies.

#### BLOCK DIAGRAM:



#### RESULT AND CONCLUSION:

This paper presents the IoT-based occupational health and safety by the adoption of IoT-based real-time data capturing strategies to monitor the location, limited exposure and respiratory safety of workers. Real-time monitoring of personal health status of workers and their actual positioning can be estimated.

The proposed model is suitable for assessing the environmental condition of cold storage warehouses. Management of these warehouses is simplified by the use of Internet of Things. These warehouses are continuously monitored in real time by the smart Wireless monitoring network through support of the available sensor technologies and wireless networks or communication. Hence the cold storage monitoring system forecasts the occurrence of an emergency directly. Advantages of the system is the small cost and safety related task.



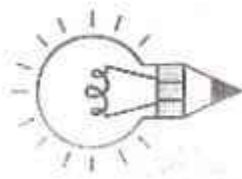
**FUTURE SCOPE:**

1. Its automation of cold storage there is increase in 2023.
2. It is easy to use and easy for cold storage.
3. This is mainly in developing countries.
4. It will be time saving for repeating of similar.

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- [3] B. Freitas, P. Soares, V. Vieira, J. Machado, Monitoring and Control of a Cooling System in a Commercial Store. *2009 IEEE/ACM International Conference on Engineering and Technology*, vol. 10, June 30-July 2 2009, London, UK.
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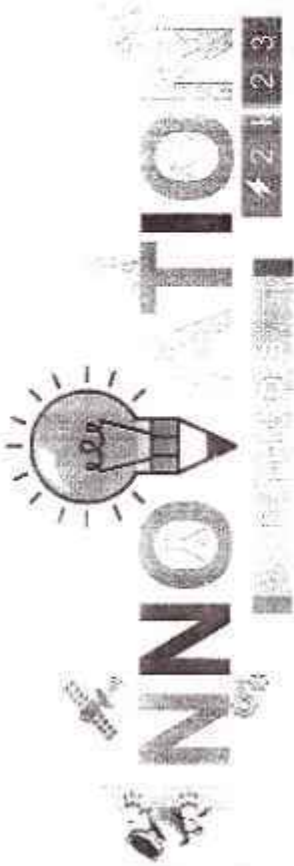
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## Labour Work Monitoring System

Dr. S. R. Mahadik<sup>1</sup>, Omkar Vaibhav Vaidya<sup>2</sup>, Tejas Girudatta Gurav<sup>3</sup>

<sup>1,2</sup>Dep. of Electronics & Telecommunication,  
Dr.J.J Magdum College of Engineering, Jaysingpur, Maharashtra, India

### ABSTRACT:

In past few years automation has reached to new revolution. Industrial relations is the term that describes how the management and the employees of a company interact with each other. We are going to implement this project in industries with the aim to monitor the work of labours. Designing a system which easy owned of industries to work in terms of time, money and energy as whole system is very profitable and time saving. The title of project is "Labour work monitoring system".

This system will record the operation time of the workers and the details of worker who is operation it. It can also be used to monitor safety and productivity of employees, but it also can help business financially. All the system is designed on basis of web server and microcontroller. This system is based on microcontroller and web server debugging. In this project we are going to use an RFID for identification, which will interface by the microcontroller AT89C51. The production data will be upload on the Web Server through Web Interface (GUI).

### INTRODUCTION

Industry has become the second largest employment generating sector in the world. Data interpretation system is an Automated Information System which gives better control over production monitoring and takes corrective steps immediately. It provides better control over working process of labours. Continuously performance of every single worker as a total gives a high productivity. With its increasing growth and demand, textile industry faces many problems which have to be changed. One of the methods to solve these problems is the use of automation in the industries. Automation can be defined as the process of reducing human assistance in the process performed. In most sectors of manufacturing, automation is one of the major key to improvement and maintain working hours of labour. A process control or automation system is used to automatically control an industry. The Process Automation System uses a network to interconnect sensors, controllers, operator terminals and actuators. During the past 15 years, the Internet revolution has redefined business to Consumer (B2C) industries such as media, retail and financial services. In the next 30 years, the Internet of Things revolution will dramatically alter manufacturing, energy, agriculture, transportation and other industrial sectors of the economy which, together, account for nearly two-thirds of the global gross Domestic product (GDP). It will also fundamentally transform how people will work through new interaction between humans and machines.

### LITERATURE SURVEY:

- [1]. Prof. Niranjan M. Madhokar N. Vahedil A. Madhusar J. Sahil M (Department of Electronics and Communication, Jaiu College of Engineering Belgavi, India) Internet of Things (IoT) in industry has created a new revolution in industries. IoT in industry has given rise to the term "INDUSTRY 4.0" where machines are connected to each other over the internet and can communicate with each other to take necessary decisions (also called as M2M systems or machine-to-machine interaction). In this paper, we shall design a system which will automatically control and monitor the industrial applications and also allow the user to control the applications from any where in the world. Having control over the applications over the internet, it is easy to deal with the industrial applications. **Keywords:** Artificial intelligence, Industry 4.0, M2M communication.
- [2]. D. L. Wu, Wing W. A. Ng, D. S. Young, and H. J. Ding, "A Time-Correlated RFID applications" in *Proc. International Conference on Machine Learning and Cybernetics*, Haining, 10th-13th, 2009, pp. 2330-2334 Radio Frequency Identification (RFID) is the next generation wireless communication technology applicable to a wide range of applications areas. It is an increasing number of retailers, banks, public transport operators, etc. are using the technology to improve their business processes. This paper discusses both opportunities and challenges. The research in this paper is a preliminary survey of RFID applications and suggest some opportunities and challenges for researchers.
- [3]. Umar Farooq, Mahmood ul Hasan, Muhammad Usman, Ahsan Hameed and Muhammad Usman Akmal. This paper describes the design of RFID based system and how it can be used in a wide range of applications. The system is available at [www.ijrpr.com](http://www.ijrpr.com). The system is available at [www.ijrpr.com](http://www.ijrpr.com).

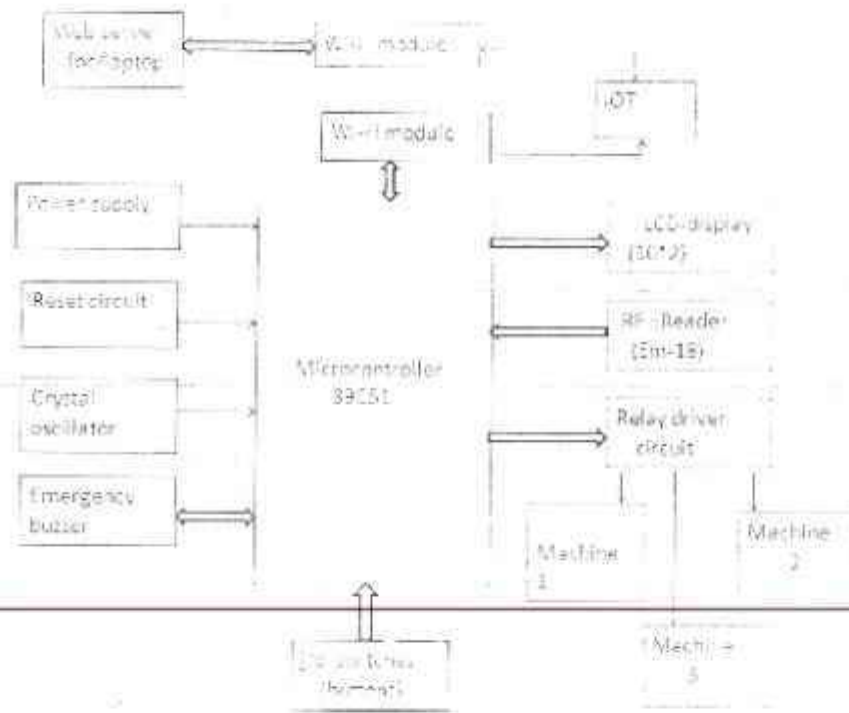




and biometrics to accomplish the required task. When the RFID reader installed at the entrance of hospital detects a machine, the system captures the user image and scans the database for a match. If both the card and captured image belong to a registered user, access is granted; otherwise, the system turns on the alarm and makes an emergency call to the security van through GSM modem. In this way, the suspicious persons can be caught. Index Terms—Security and Access control, RFID, Image recognition.

- [4]. G. Osmjic, S. Stanković, and M. Lazarević, "Implementation of RFID technology in parking lot access control system," in *Proc. 10th RFID Eurasia Conference, 2007*, pp. 1-5. Clearly, these are many parking lot management systems in use. However, most of them are limited to the problem of car theft. For example, a thief can drive a property into a parking lot, and because the gate does not have any mechanism to detect whether the driver is the owner of the car, the gate will be open according merely to whether the driver pays the parking fee. A thief can drive away with a luxurious car away using his own parking ticket. We propose a new scheme to prevent the car theft. We adopt radio frequency identification technology conforming to EPC global Class 1 Generation 2 to our scheme design. Our scheme supplies an easy, cheap and high security parking environment for customers and the parking management system.
- [5]. Using Assembly and C. By Janice Gillispie-Mazidi, Muhammad Ali Mazidi, and Robin D. McKinlay. This textbook covers the hardware and software features of the 8051 in a systematic manner. Using Assembly language programming in the first six chapters. It provides readers with an in-depth understanding of the 8051 architecture. From Chapter 7, this book uses both Assembly and C to show the 8051 interfacing with real-world devices such as LCDs, key boards, ADCs, sensors, real-time-clocks and the DC and Stepper motors. The use of a large number of examples helps the reader to gain mastery of the topic rapidly and move on to the topic of embedded systems project design.

### BLOCK DIAGRAM:



101

### RESULT AND CONCLUSION:

The result of the proposed system design is a secure and reliable system for parking lot management. The system is implemented using a microcontroller and a web server. The system is able to detect the presence of a machine in the parking lot and to control the access of the machine to the parking lot. The system is able to detect the presence of a machine in the parking lot and to control the access of the machine to the parking lot. The system is able to detect the presence of a machine in the parking lot and to control the access of the machine to the parking lot.

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## TRAFFIC CONTROL AND GREEN CORRIDOR USING UNMANNED AERIAL VEHICLES (DRONES)

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### ABSTRACT

Recently, Unmanned Aerial Vehicle (UAVs) has caught lots of instructed researchers developing them. They are numerous applications such as agriculture pesticide spraying drones, security drones, and surveillance drones for providing medicine to users, food packet delivery drones, etc. In this paper, the design of the prototype drone is shown for traffic monitor control and the green corridor drone has a flight time capacity of 15 minutes guidance for an ambulance giving green corridor to it. The drone has a wireless public address system (PA) which is controlled by traffic.

**KEYWORDS-DRONE, GREEN CORRIDOR, PUBLIC HEALTH, TRAFFIC CONTROL, UAV**

### 1] INTRODUCTION

Approximately two to five percent of a country's gross domestic product is lost to traffic congestion. With increasing industrialization, urbanization & population, there has been tremendous growth in traffic. With growing traffic, there are rise in problems, which include traffic jams faced by ambulances fire brigades & other vehicles. Emergency vehicle benefit is enormously influenced since of activity. Delays in coming to the clinic may lead to the misfortune of life of a patient. These things require a Expedient. The Drone Rules (unused Rules) 202) characterizes plan as "an air ship that can work independently or can be worked remotely, without a pilot on board. Drones are moreover known as unmanned flying machine frameworks. However, with technological advancements, their use for civilian purposes & has evolved in recent years. Drones provide productivity & efficiency at low costs for a variety of activities. Most drones have a present day built-in Cameras, Speaker, conveyance, etc. The observation employments of unmanned airborne vehicles (UAVs) have developed since of their capacity to function in unsafe areas whereas keeping their human administrators at a secure remove. The bigger UAVs to give a dependable long length, cost-effective, stage for surveillance as well as weapons. They have developed to gotten to be an vital instrument for the military. The address we postured for the extend was whether little UAVs moreover had utility in military and commercial/industrial applications.





## II] HEADLINE

In this paper, the design of the prototype drone is shown for traffic monitor control and the green corridor drone has 15 minutes guidance for ambulances giving green corridor to it. The drone has a wireless public address system (PA) which is controlled by traffic. The main objective of this project is to create a 'green corridor' for the ambulance so that the ambulance can reach the hospital without having to face many obstacles.

## III] FIGURES AND TABLES

For somebody modern to the multicolor side interest, putting together your to begin with quad copter parts list can be greatly overwhelming. Attempting to figure out what to purchase and what parts will work together is extreme, particularly for individuals who don't come from a foundation in radio-controlled planes or helicopters. Gatherings are pressed with individuals who need to construct a quad copter but don't know where to begin. It can be disappointing attempting to sort through the Thousands of posts on gatherings and blogs and figuring out what to do. We've listened from a part of peruses who are in comparable positions and this post is planned to spell out precisely what you wish for your to begin with quad copter construct. Whereas we'll suggest a total list of particular parts that we have utilized and tried for a total quad copter construct, the most reason of this post is to supply a common outline of the parts required to construct a quad copter. Here's what you'll require.

- Motor x4
- Electronic Speed Control (ESC) x4
- Flight Control Board
- Radiotransmitter and collector
- Propeller x4 (2 clockwise and 2 counter-clockwise)
- Battery & Charger
- Wireless Bluetooth
- Camera

## IV] SPECIFICATIONS-

### 4.1] FRAM

Fair as vital as great hardware, multi-rotors depend on the consider, lightweight bodies for mounting components. There are incalculable outline plans of changing shapes, measurements, and materials. Stiffer outlines bestow way better flight characteristics since less distorting and bowing can happen. On the off chance that a outline is as well fragile, in spite of the fact that, your inescapable crashes will result in more visit repair sessions. Outlines have to be both solid and stiff, while being light sufficient to jump around within the sky with ease. One of the most common materials for multi-rotor frames is carbon fiber. A great many of its physical properties are perfectly suited to the hobby. The only catch is that carbon fiber is known to block radio signals, which is obviously not ideal for a hobby that depends on multiple transmissions. It can be used





and is often. Just be aware that blocked signals are a possibility. Frames can also be built at home using aluminum orbalsasheet. But results will vary from manufactured frames, both aesthetically and in terms of flight attributes.



Figure 4.1 F450 Frame Arm

Arms moreover play a imperative part within the battle against vibrations, which can cause a number of distinctive issues. Flight controllers, with their sensitive barometers and spinners, don't by and large respond well to unremitting shaking. Shake them too much through a destitute setup and you may see sporadic behavior, some of the time awful sufficient to cause crashes. Vibrations are too the fear of anybody trusting to utilize a camera on a multi-rotor. The wavy, headache-inducing twisting shaped as a result of dynamic checking.

#### 4.2 MOTORS

The correct gadgets are a to begin with step toward making flight, but a multi-rotor isn't going anyplace without great old-fashioned commonsense material science to drag it upwards. Your choice of motors plays a essential part within the victory of a competent setup. Typically too the point when details begin to induce complicated. You'll need to do a few investigate some time recently settling on the proper arrangement for your quad. And engines are costly, making it indeed more imperative to consider the choices carefully.

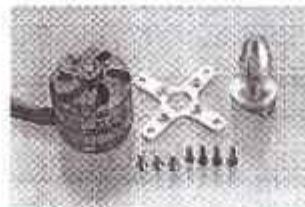


Figure 4.2 BLDC motor

Quad copter almost exclusively uses brushless DC motors (BLDC), as they provide thrust-to-weight ratios superior to brushed DC motors. However, they require more complex speed controllers.

#### 4.3 PROPELLERS

Moreover crucial are the propellers you select. The assortment of props is apparently more prominent than any other component we examine: materials, measurements, and cost span a mind-bogglingly wide run. By and large, cheaper props are less absolutely made and more inclined to making vibration.





#### FIGURE 4.3 PROPELLERS

A more broad prop setup (with correspondingly-low KV engines) is less demanding to fly relentlessly, employments less current, and lifts more weight. To be perfectly honest, perfect way>the most perfect way to gauge the correct run for engines and props is by alluding to producer suggestions in the event that you're building an ARTF pack. Otherwise you can essentially compare the setups of more experienced builders.

#### 4.4 ELECTRONIC SPEED CONTROLLER(ESC)

Electronic speed controllers (ESCs) are used in many R/C applications. They decipher signals to electrical supply. These speed controllers acknowledge commands within the frame of PWM signals and yield the fitting engine speed accordingly. Each ESC features a current rating, which demonstrated the most extreme current that it may give the engine without overheating. Fitting ESCs must be chosen to guarantee that they can give sufficient current for the engines. We chose 30A DYS ESC for our venture (Figure 4.4), as they are well-reviewed for utilize with quad copters and have an adequate current rating. Which indicated the maximum current that it may providethe motor without overheating. Appropriate ESCs must be chosen to ensure that they can provide enoughcurrent for the motors. We selected 30A DYS ESC for our project (Figure 4.4), as they are well-reviewed for usewith quad copters and have a sufficient current rating. The only other major factor to consider is an ESC'smaximum current rating, which must exceed the current draw to each motor. Generally, 30 A for medium/largequadsand10to12A for a small quadrangleis plenty.



Figure 4.4 Electronic Speed Controller Schematic

#### 4.5 BATTERY

Multi-rotors draw a tall current and can effortlessly drag 40 A on a soak rising. As a result, strong batteries are a need for conventional flight times. The industry standard is lithium-ion polymer (LiPO) batteries. Generally lightweight, compact, and advertising tall release rates, LiPO is well-suited for multi-rotors. LiPOs packs too have C appraisals that demonstrate the greatest rate at which a pack can be released, with C standing for capacity. A 20C pack can be released at a rate 20 times it is capacity. Capacity, in this manner, is the third critical calculate. It's measured in milliamp-hours (mAh). Let's say our 20C pack features a capacity of 4000 MAH. Given what we know approximately C evaluations, ready to do the math and decide its greatest release at up to 80,000 mAh, or 80 A. Comparative to ESCs, you wish a release rate that's higher than the combined draw current of your engines.





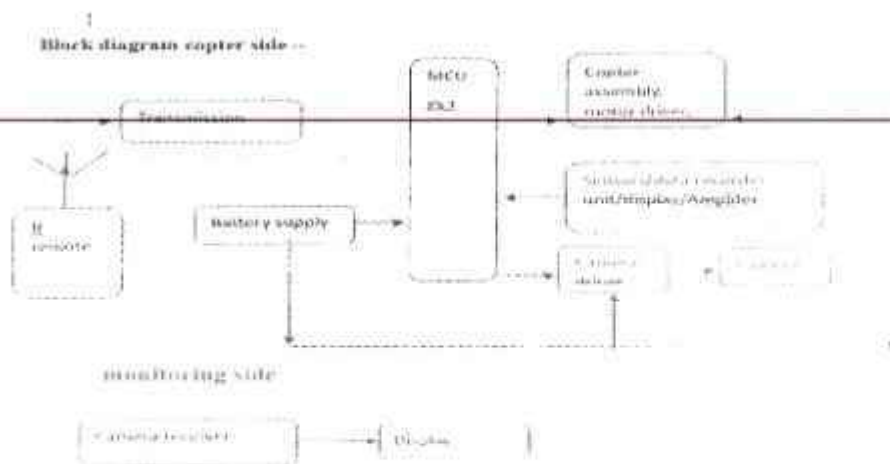
#### 4.6 RADIOTRANSMITTER AND COLLECTOR

The radio system on an FPV (first-person view) multi-rotor is, of course, the control system. Again, both a transmitter and receiver are needed, and the choice of frequency is an important one. There are generally fewer frequencies available for control systems. The foremost common is 2.4 GHz, in spite of the fact that 35 MHz and 72 MHz were prevalent within the past, too. UHF frequencies are getting to be progressively predominant. Transmitters are accessible either as a single unit or, less commonly, as secluded pieces. After you purchase the transmitter shell, sticks, handles, and switches on their claim, without radio equipment, you at that point require a transmitter module to radiate your inputs. Devotees with numerous models communicating over distinctive frequencies regularly discover this approach valuable, since it's simple to swap out modules. The Turning 9XR is an illustration of a quality, reasonable secluded transmitter.

#### 4.7 FLIGHT CONTROLLER

Multi-rotors are interesting within the world of R/C specialists. Ordinarily, when it comes to controlling a show vessel or plane, the pilot has supreme, exact control over the engine. A bump of the throttle decipheres to a relative increment in RPM. The same is genuine of input to the rudders, ailerons, flaps, and other parts included in changing speed or heading. The distinction with multi-rotors, whether or not advantageous, is that no human is capable of controlling the rotational speeds of three or more motors simultaneously with enough precision to balance a craft in the air. This is where flight controllers come into play.

### VI CONCLUSION



We can conclude drone is implemented with the public address system (PA) to address traffic, monitor traffic, to guide and control the road traffic for fluent flow without any occurrence of traffic jam. The drone also guides ambulances to get green corridor implementation of public address system (PA) and observing the traffic through a



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## Fire Fighting Robot

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### ABSTRACT

With the development in the field of robotics, human intrusion has become less and robots are being widely used for safety purpose. In our day-to-day lives, fire accidents have become common and sometimes may lead to hazards that make it hard for the firemen to protect human life. In such cases, a firefighting robot is used to guard human lives, wealth and surroundings from the fire accidents. Here we implement two modes of robotic operations- Manual mode & Automatic mode. In the Manual mode, PHP webpage is used to control the robotic vehicle. In Automatic mode, the robot takes controls by itself based on the user predefined command. To detect fire we use OpenCV for image processing. Standard colors of fire are defined by upper and lower boundaries of HSV color spaces of red, orange and yellow. The water spraying mechanism is completely automatic to both the modes. In the PHP webpage we have a control to switch between manual and automatic modes based on our choice.

### INTRODUCTION

As robotic Technologies have improved and has been an integral part of our lives lots of people have made attempts to find an alternate for human work and efforts with new improvement in technology of embedded design particularly when people risk the lives during fire hazards. This allows robots to act to their full potential and understand complex and difficult scenarios aftermath of a disaster however it would be effort full if the robots fight against fire hazards rather than responding after the occurrence of the hazard. The need for production systems in cities and major towns has been mandatory and this robot has been built to match the difficult environment of such topographical areas. The basic idea is to implement fire sensors positioned by estimation of the range of fire radiation. There are smoke detectors and gas detectors which are normally cheap and easy solution for fire detection. What recent developments that includes distributed fire optic temperature sensors which are used to extinguish fire. This module uses wireless sensor structures ultrasonic sensors that senses obstacles and moves according to the detected obstacles. Digital image processing technique has been used with color video pictures and it could sense the flames.

### LITERATURE SURVEY

1. The proposed model is able to detect presence of fire using flame sensor and calculates object distance using





ultrasonic sensor and moves the robot to fire accident location. It contains gear motors and motor driver to control the movement of robot. When it detects fire it communicates with microcontroller (Arduino MEGA) and the robot will move towards the fire affected area. [1]

2. Robot is a machine that seems as though a person and performs different complex assignments. There are numerous kinds of robot. Here a FIRE Quenching ROBOT is proposed. This robot is furnished with a solitary fire sensor used to detect ecological fire and feed the signs to the microcontroller so as to trigger the siphon which sprinkles water so as to stifle the fire. [2]

3. This robot uses dc motor, Arduino microcontroller, sensor, pump and sprinkler, it uses smoke sensor for detection and fire extinguisher to extinguish the detected fire. Therefore this arduino based robot is designed to control the fire through a robotic vehicle; the robot rotates while fire is detected, this detection is performed by the sensors which is placed on the sides. [3.]

4. The project that is being presented is focused on a firefighting robot, Robots are capable of performing tasks in a more efficient, cost-effective, and accurate manner than humans. It has grown in popularity as technology has advanced, making human work simpler. ]

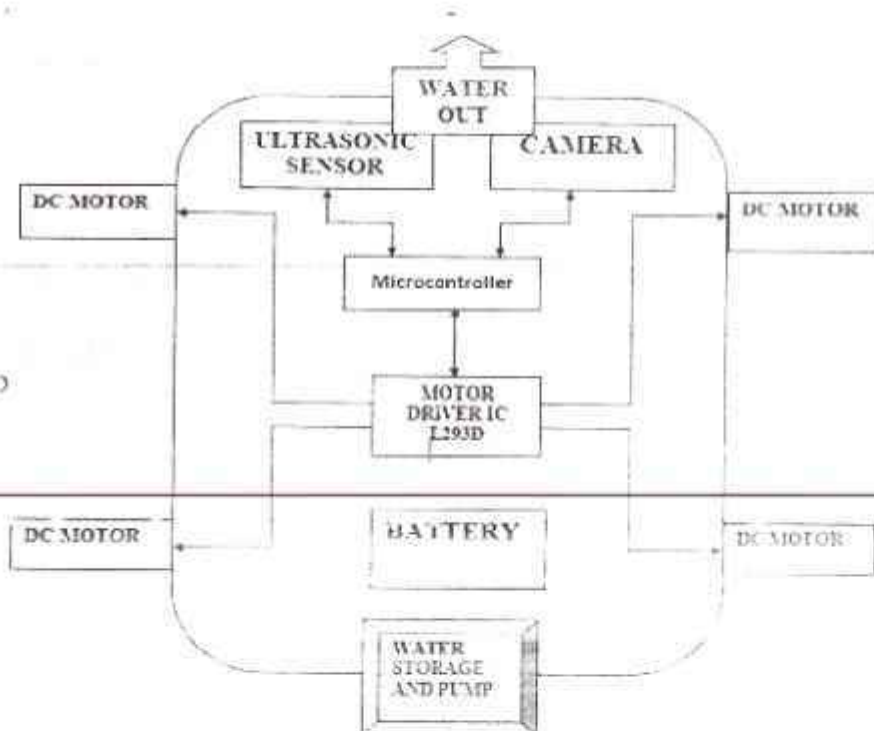


Fig1. Block Diagram

Initially a local adhoc network is created with a dongle device generating the Wi-Fi hotspot and micro-controller connects to it. Once it is successfully connected there is an option to start the robot either in auto or manual mode. In auto mode the robot is switched ON by simultaneously running two python scripts one for color





detection and another for running motors. There is also a separate program for ultrasonic sensing which is called from the main GPIO program. The command for running a python script in Microcontroller terminal is once the python program is run and the camera or ultrasonic sensor detects anything, the corresponding arguments are displayed in the terminal. The arguments we have used are

- "FIRE detected" in case any colour constituent is detected
- "Obstacle detected" if any obstacle detected by Ultrasonic sensor
- "MANUAL MODE" for manual mode of operation
- "AUTO MODE" for auto mode operation

### RESULT AND CONCLUSION

The automated fire-fighting robot is capable of detecting fire and extinguishing the fire source successfully. The raspberry pi controls the DC motor and ultrasonic sensor for movement of robot. It can detect fire under normal and dark lighting conditions and better suited for extinguishing fire inside a building. The Fire Fighting Robot is fabricated with locally available materials and some tests are done to observe its effectiveness at different situations. As the Fire Fighter Robot has to endure different situation, this effectiveness test will help us to make a better model. The Fire Fighting Robot is effective enough to fight against fire on a small scale. It can sense fire flame better at darker places. It is made as a preventer robot. Because it can detect fire instantly and can extinguish it before spreading. This multisensory based robot may be a solution to all fire hazards. With enough funding and scope, this design of robot can also fight against large fire with larger reserving capacity and an improved sensing unit can provide even an earlier detection of fire at all circumstances.

### FUTURE SCOPE



IOT can be implemented onto the robot to control it from another location in manual mode. More sensors can be mounted to achieve a better performance and we can also reduce the reaction time detecting the fire source. With the addition of a 360° camera we can achieve a great field of view. The storage can be replaced with a water pipeline for extinguishing larger fire source. Colour detection of fire is not very reliable. Hence a thermal camera can be installed rather than the USB camera to achieve better detection of fire source based on intensity.

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## IOT based Smart Helmet

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### ABSTRACT

India, known for its large youth population, has a high incidence of bike accidents due to a lack of helmet usage. Many young people are more interested in following fashion trends than protecting themselves from head injuries. Unfortunately, this has resulted in an increase in bike accident fatalities. Drunk driving is also a significant contributing factor to bike accidents, with many accidents occurring due to negligence. To address these issues, a smart helmet utilizing the internet of things has been developed. This helmet has several features, including only allowing the bike to start if the rider is wearing a helmet, shutting off the ignition if the rider is over the legal alcohol limit, and sending an alert to a registered contact in the event of an accident. Additionally, a speed lock feature prevents the rider from exceeding 60km/hr, with an audible warning triggered if they do. This system is comprised of two modules, one on the helmet and one on the bike. The helmet module includes an alcohol sensor and a helmet switch, while the bike module includes a vibration sensor, GPS, and GSM. These two modules communicate wirelessly using an RF transmitter and receiver with an encoder and decoder, all controlled by an 8051 microcontroller.

### INTRODUCTION

We have created a new design for a SMART HELMET FOR BIKE RIDER'S SAFETY, which is described in detail below. The claimed portion of the design of the SMART HELMET FOR BIKE RIDER'S SAFETY includes advanced features such as alcohol detection, accident identification, location tracking, hands-free device usage, and fall detection, all of which are designed to enhance rider safety. This smart helmet also functions as a feature of a smart bike, with a compulsory requirement to wear it. If the rider fails to wear the helmet, the ignition switch will turn on and an alarm will start beeping to alert the rider, while a message will be sent to the RTO. An RF Module is used as a wireless link for communication between the transmitter and receiver. If the rider is drunk, the ignition gets automatically locked and a message with the location is sent through the GSM module with the help of GPS. The distinctive utility of this project is fall detection, if the rider falls off the bike, a message is sent to alert others. Finally, a speed lock is set at 60km/hr, and if the rider exceeds that speed, a buzzer will start beeping to warn them.

### LITERATURE SURVEY:

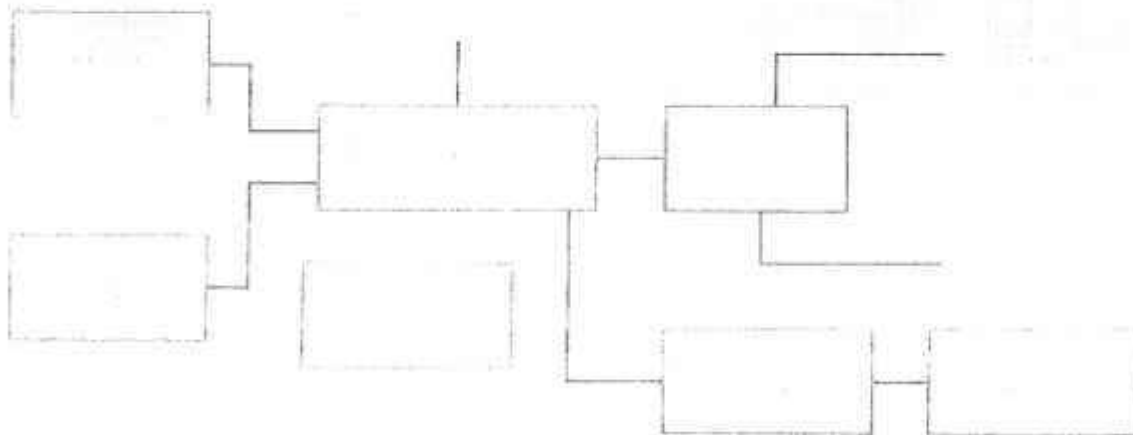
Mohammad, Ehsanul Alim et al [1] has given an approach Arduino (NANO and Arduino Mega-2560) are microcontroller which control the entire components of the system. Two 2.4 GHz nRF24L01 for communication between sender and receiver. MQ-3 alcohol sensor is used which can detect whether the bike rider is consumed alcohol or not. If the bike rider is alcoholic, then the MQ3 sensor detects it and turn off engine. A Sharp IR sensor detects the head of the rider within the specified range. The Bike rider's engine will start only when the rider will buckle the helmet. GPS & GSM Technology is used for tracking the location of the bike rider and sending text message to the family members of the Bike rider when an accident occurs. Dhruvash H. Patelhas et al [2] proposed an approach which the System is plan and implemented such a way that the bike will not ignite until the rider wear helmet and pass an alcohol test, this will help to solve the problem of 'drink and drive'. It consists of GSM/GPS technology which sends the message to the family members as well as hospital with the current location at the time of an accident.



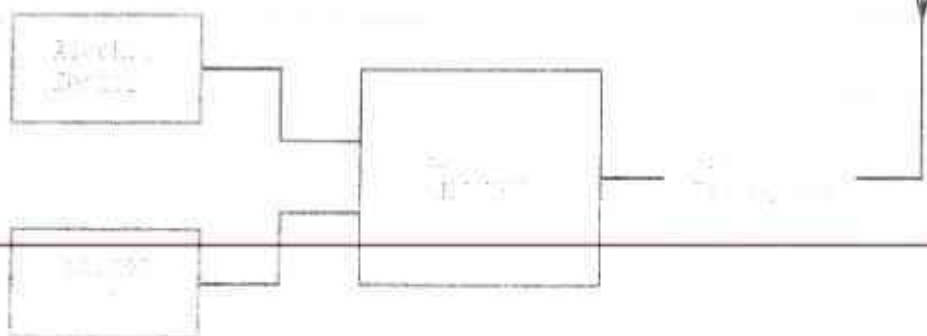


**BLOCK DIAGRAM:**

**FUNCTIONAL BLOCK DIAGRAM : Vehicle Unit**



**FUNCTIONAL BLOCK DIAGRAM : Helmet Unit**



**RESULT AND CONCLUSION:**

With the help of the proposed system, the user can get the required information about the vehicle and helmet. The system is designed in a way that it can be used by the user to get the required information about the vehicle and helmet. The system is designed in a way that it can be used by the user to get the required information about the vehicle and helmet.

**REFERENCES:**

- 1. [1] ...
- 2. [2] ...
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# IOT Based Smart Locker System

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**ABSTRACT:** As mankind leads into a new age of modernization, security issues and measures have become exceedingly important. Considering an educational institute or workplace, keeping one's belongings safely with a minimal interface is the need of the hour. The traditional lock and key method of keeping personal items safe is clumsy and inconvenient. The recent developments in technology have provided innovative solutions to this problem. Gone are the days of the troublesome key and lock. Radio Frequency Identification (RFID), along with Internet-of-Things (IoT), is a secure, user-friendly and efficient method to safeguard things. This combination comes with advantages such as high security, simplicity, cost-effectiveness and 'misplace-proof' methodology. This paper proposes a Smart RFID-IoT based Locker system. The locker works on RFID authentication technology, which is unique to every identity card of the user. It is also enabled with Wi-Fi connectivity to facilitate continual status monitoring, user login-logout data storage, and unauthorized access surveillance.

**INTRODUCTION:** The main purpose of this paper is to design and implement a system based on a Password and a Radio-Frequency Identification (RFID). This system is basically a password and an RFID based access-control system which permits only an authentic person to unlock. For doing this, the system will activate and authenticate the user. We have applied a security system via a passive type of RFID and a PASSWORD based on Atmega16 microcontroller. The RFID reader reads the ID number from RFID tag. Then enter the password from a Keypad, if the ID number of the tag and the password are correct, then the will unlock. The aim of constructing this system is to put in place a formidable locker security system with low cost and free of errors.

Looking up after valuables is a common practice to protect them from thieves. Now days, atomization has reached in various fields. . Atomization in banks has not yet been enrolled up to a desired level. Though bank plays an important role in a common man's life Thus, we will be developing the system which will improve the level of atomization in banks.

Here's a sophisticated electronic code lock using micro controller 89s52. This code lock has following features:

1. Here we will be providing a 3 level security system.
2. A four by four matrix keypad is used for inputting the password.
3. RF-ID card has a code which will be read by microcontroller and microcontroller will compare this code with the permanently stored code.
4. The password comprises four digits which will offer a greater security. If the security has to be increased up to 9 or 10 digits it can be increased without modifying any component with the help of software only.



5. Two separate relays are provided: Relay A is provided for opening the lock and relay B is used for closing the lock.

#### LITERATURE SURVEY:

1]

##### IOT BASED SMART LOCKER SECURITY SYSTEM

This project will focused on effective recognizing and controlling system for Bank locker room which is fully self determining. In cases of robberies, its commonly happen that the banned entrance in the locker room area which can be detected by our security system. If the robbery take place the banks are not be capable to recognize the robber due to absence of the proof by using the current human operated security system. The system will designed in effective way by recognizing and controlling illegal person to access the locker for the safety of bank locker room.

In this, we proposed a three phase conformation of procedure for smart locker, by providing User Name and Password, using Fingerprints and OTP which check out the user. As compare to any other previous approaches our system uses the verification process which generates an OTP to registered mobile number which highlights the smart security.

2]

##### FINGERPRINT BASED BANK LOCKER SYSTEM USING MICROCONTROLLER

The main aim of the paper is to design and implement the Fingerprint based bank locker system using microcontroller. Biometrics studies commonly include fingerprint, face, iris, voice, signature, and hand geometry recognition and verification. Many other modalities are in various stages of development and assessment. Among these available biometric traits finger Print proves to be one of the best traits providing good mismatch ratio and also reliable. The present scenario to operate a bank locker is with locks which are having keys. This does not provide good security to our lockers. To provide perfect security to the bank lockers and to make the work easier, this project is taking help of two different technologies viz. EMBEDDED SYSTEMS and BIOMETRICS.

3]

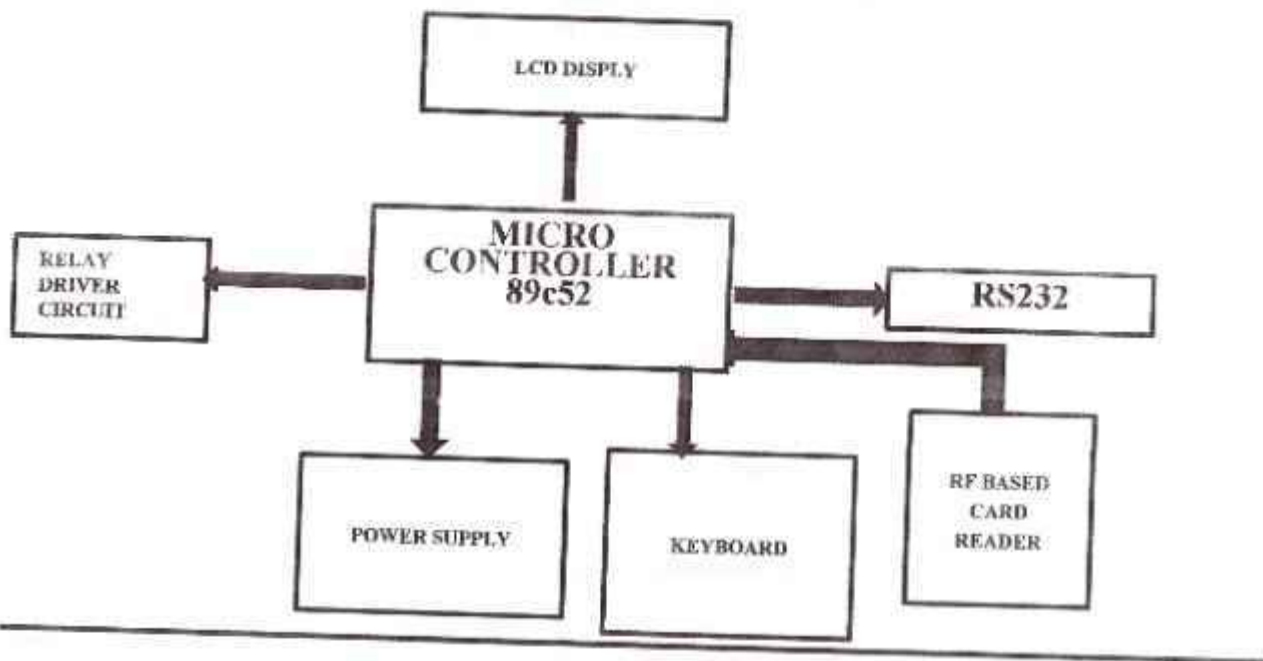
**Design and Implementation of ATM Security System Using Vibration Sensor and GSM Modem**  
In the era of digitalization, everyone needs money without interaction with bank at any time. So



the ATM (Automotive Teller Machines) are installed everywhere in the localities. As the number of ATMs increased, prevention of theft and security of customer is the prime objective. At present, security systems are not highly secured as they are only provided with alarm system. This project deals with design and implementation of ATM security system using vibration sensor and GSM Modem. The prime objective of this project is, to secure the ATM system using vibration sensor and GSM modem. In this project, when a thief enters and tried to harm the machine, the vibration sensor which is attached to the machine get vibrated and sends the signal to the ARDUINO microcontroller. Once the controller receives signal, it locks the door of ATM room by sending signal to the dc motor and sprinkler sprinkles the chloroform to make the thief unconscious. The buzzer will also be getting activated at the same time to alert the nearby people of ATM system. Simultaneously, the controller will send a message to an authorized person of the bank through GSM modem and The door is made to open only after entering the password by the bank staff. The project is implemented and worked successfully.



BLOCK DIAGRAM Functional Block Diagram:

**RESULT AND CONCLUSION:**

In this paper, a smart RFID based compact locking system. RFID enabled 'Read-Authenticate' algorithm was used for user verification. The system provides impressive security in a user-friendly manner requiring minimum human intervention. The proposed system was also able to track and monitor the locker activity over definite intervals of time. It used Wi-Fi connectivity to communicate with a centralized server, where the locker records were stored in a database allowing continuous tracking and surveillance. This initiative opens up many new areas of interest, such as integrating such a locker with prevalent intelligence techniques like Computer Vision or Speech Recognition, to make deposition and registration even more smooth, secure, and smarter.



**FUTURE SCOPE:** You can accomplish a variety of accounting tasks with their assistance. Electronic locks, in addition to unlocking and locking doors, can also be used to keep track of working hours. When an employee uses an RFID tag to unlock a door, the system receives a door open signal and records the time the employee arrived and departed the company.

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- [5] Mrutyunjaya Sahani, Chinnjit Nanda, Abhijeet Kumar Sahu and Biswajeet Pattanik "Web-Based Online HEEmbedded Door Access Control and Home Security System Based on Face Recognition" 2015 International Conference on Circuit, Power and Computing Technologies [ICCPCT]







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*M. M. Kolap*



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## Design & Operation of Agriculture Based Pesticide Spraying & Grass Cutting Robot

Prof. M. M. Kolap<sup>1</sup>, Navrata Sunil Shetti<sup>2</sup>, Snehal Prabhakar Koshti<sup>3</sup>

<sup>1,2,3</sup>Dep. of Electronics & Telecommunication, Dr. J. J. Magdum College of Engineering, Amravati, Maharashtra, India

### ABSTRACT:

Spraying pesticides manually outdoors can be challenging due to factors like on-time environment and unfavorable weather conditions. To minimize the risks associated with manual spraying and reduce labor intensity, a team developed a pesticide sprayer robot specifically for use in a greenhouse. The robot is powered by an Arduino Uno microcontroller and can be controlled using a custom mobile app. The app features simple buttons that allow the user to direct the robot's movement and the robot communicates wirelessly with a Wi-Fi module for communication between the app and the robot. With the proximity of the greenhouse environment, the robot is designed to meet the requirements of pesticide spraying applications in a controlled environment, without the need for insecticides. The benefits of using a robotic system in this context include consistent output, quality, and repeatability.

### INTRODUCTION:

Since the 1970s, China has made significant progress in popularizing plastic greenhouses and advanced planting techniques, resulting in substantial economic and social benefits. Presently, China has emerged as the world's leading producer of greenhouse crops. However, there are still gaps in greenhouse production management and automation compared to more developed countries. Farmers in China often work under primitive conditions, enduring high temperatures, humidity, and poor ventilation for extended periods. In contrast, developed countries like Japan have achieved a high level of automation in greenhouse management and are advancing towards fully automated, unmanned systems known as "plant factories." These facilities utilize robots and robotic arms for cultivation, liberating them from the constraints of natural conditions. Therefore, it is crucial for China to improve the automation level of greenhouse production equipment and develop agricultural techniques to meet the demands of the new era. The rapid advancements in smartphone technology, including enhanced processors, large storage capacities, entertainment features, and various communication methods, have made them powerful devices. The introduction of Wi-Fi technology has revolutionized the way people use digital devices, eliminating the need for traditional wired connections. The concept of using a smartphone as the central control unit for robots has gained attention and offers numerous opportunities and possibilities. In this paper, we provide an overview of current mobile-controlled robots. Our work focuses on controlling the robot's movement, such as forward, backward, left, and right, through an Android application.

### LITERATURE SURVEY:

Journal of Intelligent & Ambient Systems, Jang - Wireless Sensor Network and CPS Module, IEEE TRANSACTIONS ON NETWORKS AND EMERGING SERVICES, VOL. 6, NO. 1, JANUARY 2016

The paper proposes a sensor network and robot represents the design of automated irrigation system which was developed for a diverse collection of smart sensors. The computer and the sensor network were used to track soil moisture and temperature. Whatever data collected from sensors was transmitted to the server & can be monitored via internet.

[1] Navrata P. E. Shetti, T. Rajgaonkar, Snehal Prabhakar Koshti, "Spraying Robot for the in A Greenhouse(A)", Australian Conference on Robotics and Automation, Sydney, Australia, 2020.

The paper discusses the development of a robot with a Wi-Fi module for remote control. The robot is designed to spray pesticides in a greenhouse environment. The robot is controlled by a mobile app that is installed on a smartphone. The app sends commands to the robot via Wi-Fi. The robot has a camera that can be used to monitor the greenhouse environment. The robot also has a sensor that can be used to measure the amount of pesticides that have been sprayed.

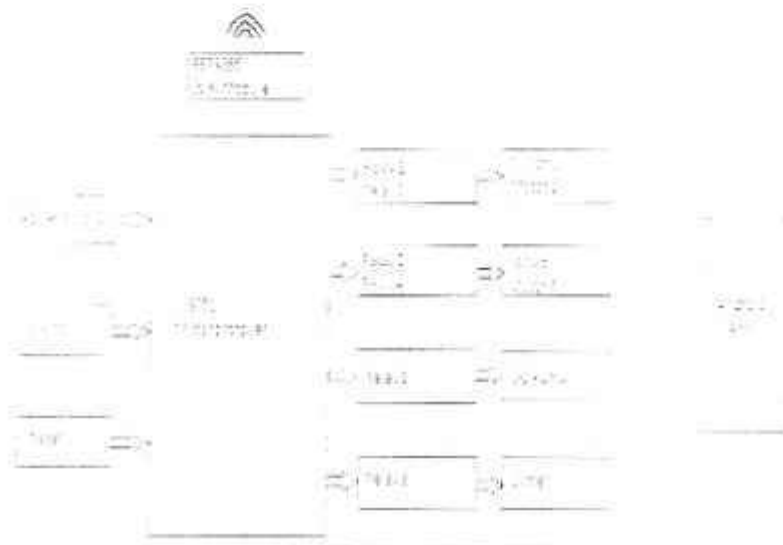
[2] M. M. Kolap, Dr. J. J. Magdum College of Engineering, Amravati, Maharashtra, India. Email: [m.m.kolap@magdumcollege.ac.in](mailto:m.m.kolap@magdumcollege.ac.in)



Developed agriculture needs to find new ways to improve efficiency. One approach is to utilize available information technologies in the form of more intelligent machines to reduce and target energy inputs in more effective ways than in the past. Precision farming has shown benefits of this approach but we can now move towards a new generation of equipment. The advent of autonomous system architectures gives us the opportunity to develop a complete new mode of agricultural environment based on a well-accepted scientific view on the right things, in the right place, at the right time, in the right way.

Compared to spraying pesticides manually outdoors, the environment has a high temperature, humidity for operating the spray work in green-house or in farms. In order to protect labour and reduce labour intensity we have developed a prototype of pesticide spraying robot specially used in the greenhouse and farms. ROBOT is controlled with a ARM7 controller. Designing of Insect Invented ROBOT which will be controlled using an REMOTE. We are developing the remote buttons and commands in the hardware by which we can control robot motion using RF communication to interface controller and remote.

#### BLOCK DIAGRAM:



(1)

#### RESULT AND CONCLUSION:

The utilization of battery-operated agriculture robots in the field of agriculture brings about numerous advantages. It enables a significant reduction in manual labour and time required for various tasks. Compared to traditional working methods, these machines demand fewer resources and less time to accomplish the same work. Agriculture robots are designed with diverse functions and benefits, such as incorporating a dual functionality of monitoring and pesticide spraying, effectively addressing the challenges faced in agricultural endeavours. This integrated approach greatly mitigates the negative aspects associated with these tasks. We are optimistic that our robot will meet the needs of future agriculture and assist in addressing farming issues. By adopting such technologies, we can effectively address the labor challenges we often encounter in today's farming practices in India.

#### FUTURE SCOPE:

As mentioned earlier, the device cannot be designed using software and simulated accordingly. However, during the hardware phase, the power distribution to each module can be a challenge. To overcome this issue, delays can be inserted in different parts of the circuit. This can be done by using LEDs and using a separate receiver module to supply power to the microcontroller. The power can be easily manufactured by using a 5V regulator, making it a suitable solution for future research and development. The scope for significant delay for simulation is very low.

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*D. S. W. W. W.*

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## Ambulance Tracking with Patient Health Monitoring System Using GPS and GSM Module

Prof. T. H. Mohite<sup>1</sup>, Nikiti Bharat Sutar<sup>2</sup>, Pratik Dushyant Patil<sup>3</sup>

<sup>1,2,3</sup>Dep. of Electronics & Telecommunication, Dr. J. J. Magdum College of Engineering, Jaysingpur, Maharashtra, India

### ABSTRACT:

With the assistance of this project, we can determine the precise location of an ambulance while simultaneously monitoring essential health parameters of a patient. These parameters encompass temperature, humidity, and heartbeat rate. A text message containing the location and sensor readings is transmitted to a doctor's mobile device or any authorized individuals within the hospital. This recipient can then promptly inform the doctor about the ambulance location and the patient's health status. By analyzing these parameters, the doctor can make the necessary preparations for the patient's treatment and determine the ambulance's whereabouts.

### INTRODUCTION

This project encompasses three primary functionalities. The first one involves monitoring the health of the patient, while the second focuses on tracking the ambulance transporting the patient. The third function revolves around transmitting the aforementioned details to the hospital or doctor using GSM technology. Through this project, it becomes possible to determine the ambulance's location and simultaneously monitor various health parameters of the patient, including temperature, humidity, and heart rate. A text message containing the location and sensor readings is sent to the doctor's mobile device, or alternatively, it can be forwarded to any authorized personnel within the hospital. This individual can then promptly notify the doctor regarding the ambulance's location and the patient's health condition, allowing the doctor to make the necessary preparations for treatment. The ambulance follows a designated route separate from other primary vehicles to reach its destination. Sensors integrated into the ambulance system continuously monitor the patient's health, and if the readings exceed the normal values, the GSM module transmits the tracked data to another GSM unit. Consequently, the hospital unit becomes aware of the patient's condition even before the ambulance arrives. An advantage of this project is its operation on a 5V DC power supply, which is readily available. Another recommended method for ambulance tracking is the utilization of Google Maps, which offers an efficient and convenient means of monitoring vehicle location online. Hospital personnel can employ these online maps to track the ambulance, leveraging the internet to determine the ambulance's location based on longitude and latitude coordinates. In today's internet-driven world, access to the internet is widespread and rapid. Numerous websites provide online maps, with Google Maps being one of the most renowned. By having a computer or laptop and an internet connection, hospital staff can receive an SMS on their mobile device and manually input the relevant parameters into Google Maps. Upon clicking the view button, Google Maps will display a marker pinpointing the precise location of the ambulance.

### LITERATURE SURVEY:

1. Ahmet Arslan and Semra E. Oltun: "Nesnelerin İnternet Güvenliği: Servis Engelleme Saldırısı İçin İnternet-of-Things Security: Denial of Service Attacks".

Ahmet Arslan and Semra E. Oltun: "Nesnelerin İnternet Güvenliği: Servis Engelleme Saldırısı İçin İnternet-of-Things Security: Denial of Service Attacks". "Internet of Things (IoT) is a network of sensors, actuators, mobile and wearable devices, simply things that have processing and communication modules and can connect to the Internet. In a few years' time, billions of such things will start saying in many fields within the concept of IoT. Self-configuration, automatic device selection, internet connection and system limitation features of IoT concepts may be largely prone to attacks. Denial of Service (DoS) attacks are the most common type of attacks on IoT systems. In the next paragraphs, there are IoT networks. This study aims to analyze and classify the DoS attacks that may target the IoT ecosystem. In addition to this, it is systems that try to detect and mitigate the DoS attacks on IoT will be examined.

2. Mohanraj A. Arakkaliker, "Hybrid GPS-GSM Location of Automobile Tracking System", International Journal of Computer Science & Telecommunications Technology (IJCSST) 13, No. 6, Dec 2011.

Mohanraj A. Arakkaliker, "Hybrid GPS-GSM Location of Automobile Tracking System", International Journal of Computer Science & Telecommunications Technology (IJCSST) 13, No. 6, Dec 2011. An integrated GPS/GSM system is proposed to track vehicles using Google Earth application. The remote mobile has a GPS mounted on the moving vehicle to identify its current position, and to be monitored by GSM with other parameters acquired by



automobiles data port as an SMS to a recipient station. The received GPS coordinates are filtered using a Kalman filter to enhance the accuracy of measured position. After data processing, Google earth application is used to view the current location and status of each vehicle. The goal of this system is to manage, track, police automobiles distribution and car theft entities.

### C Smart Real-Time Healthcare Monitoring and Tracking System using GSM/GPS Technologies": The Master of IEEE Projects 2015.

Smart Real-Time Healthcare Monitoring and Tracking System using GSM/GPS Technologies": The Master of IEEE Projects 2015. The number of systems being rapidly evolved recently, and smart systems have been proposed to monitor patient critical health conditions. An IoT-based proposed and implemented system focuses on monitoring the patient's blood pressure and his body temperature. Based on last decade statistics of medical records, death rates due to hypertensive heart disease shows that the blood pressure is a crucial risk factor for atherosclerosis and ischemic heart diseases. Thus, preventive measures should be taken against high blood pressure which provide the ability to track, trace and save patient's life in appropriate time is an essential need for mankind. The objective of this work is providing an effective application for Real Time Health Monitoring and Tracking. The system will track, trace, monitor patients and facilitate taking care of their health, so effective medical services could be provided at appropriate time.

### BLOCK DIAGRAM:



### RESULT AND CONCLUSION:

This paper introduces the Internet of Things (IoT) as the foundation for this project, which utilizes micro-controller technology alongside GSM and GPS systems to transmit data through text messages. This innovative approach to the medical field enables doctors to closely monitor patients' health even while they are being transported in an ambulance. Critical physiological parameters such as body temperature and heartbeat can be continuously monitored, allowing doctors to analyze the patient's condition from any location within the hospital. This not only alleviates the workload on doctors but also provides accurate results. This paper introduces the Internet of Things (IoT) as the foundation for this project, which utilizes micro-controller technology alongside GSM and GPS systems to transmit data through text messages. This innovative approach to the medical field enables doctors to closely monitor patients' health even while they are being transported in an ambulance. Critical physiological parameters such as body temperature and heartbeat can be continuously monitored, allowing doctors to analyze the patient's condition from any location within the hospital. This not only alleviates the workload on doctors but also provides accurate results.

### FUTURE SCOPE:

- 1) Expanding the scope of sensors to include additional vital signs such as glucose levels, oxygen saturation, and heart rate variability. Integrating artificial intelligence for emergency call or the patient's health parameters based on data collected from the sensors and specified tasks. With some modifications, the project can also find application in the industrial sector.
- 2) The project holds potential for tracking industrial vehicles and shipping equipment or machinery. It can be utilized for monitoring critical conditions of patients and vehicles (road by sensors) and for tracking and monitoring of equipment, devices, and people (road by sensors). It can also be used for monitoring of the environment.
- 3) The system is scalable and can be used for real-time monitoring of multiple patients or vehicles. It can be used for monitoring of the environment and for tracking and monitoring of equipment, devices, and people (road by sensors). It can also be used for monitoring of the environment.

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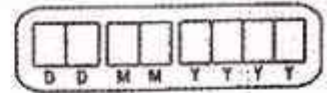
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[3] Smart Real-Time Healthcare Monitoring and Tracking System using GSM/GPS Technologies", The Master of IEEE Projects 2015.





# Tutorial - 1



1) Compare open loop & Close loop system.

| open loop system                                                                                     | close loop system                                                         |
|------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| 1) The system whose control action is free from the output is called as the open loop control system | 1) In close loop, the output depends on the control action of the system. |
| 2) feedback is absent                                                                                | 2) feedback is present                                                    |
| 3) simple construction                                                                               | 3) complex construction.                                                  |
| 4) non-reliable                                                                                      | 4) reliable                                                               |
| 5) accuracy depends on calibration                                                                   | 5) accuracy is accurate because of feedback.                              |
| 6) stable stability in open loop system.                                                             | 6) less stability in close loop system.                                   |
| 7) optimization is not possible.                                                                     | 7) optimization is possible.                                              |
| 8) Response open loop system is slow                                                                 | 8) Response of close loop system is slow.                                 |
| 9) calibration is difficult                                                                          | 9) calibration is easy                                                    |



10) system disturbance affected on open loop system.

10) system disturbance affected on close loop system.

11) non-linear linearity

11) linear linearity

12) Examples: Traffic light, automatic washing machine, immersion rod, TV remote etc.

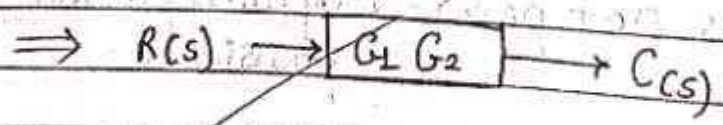
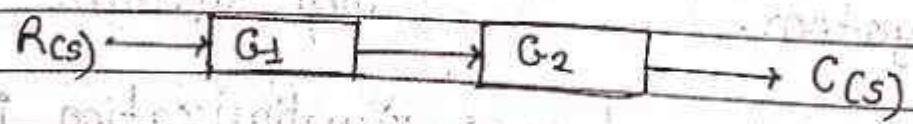
12) Examples: Air conditions, temperature control system, speed and pressure control system, refrigerator, toaster.

2) Write a block diagram reduction rules.

Block Diagram reduction rules

Any finite no of blocks in series may be algebraically combined by multiplication.

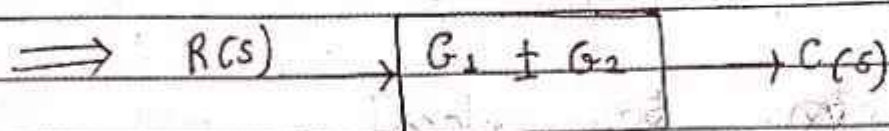
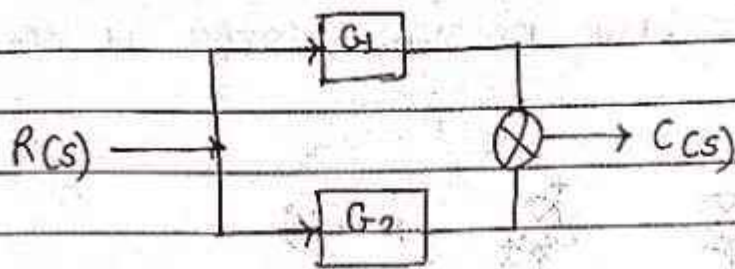
• Rule no 1: Blocks in series/cascaded



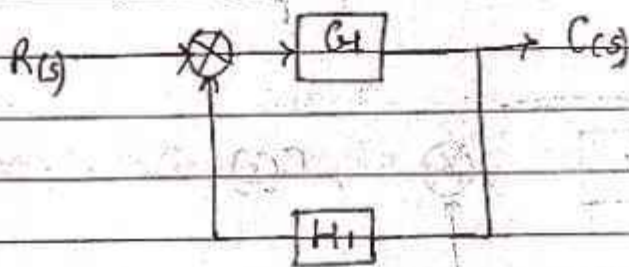
• Rule no 2: Blocks in parallel

The blocks which are connected in parallel get added algebraically

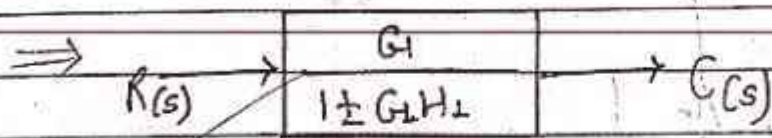




- Rule no 3 : Elimination feedback loop  
To Elimination feedback loops we use the closed loop T.F.

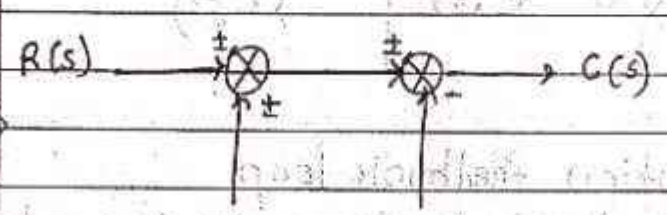
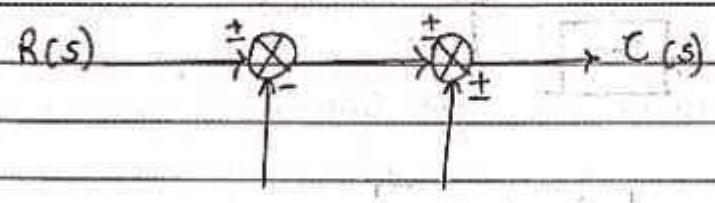


$$\frac{C(s)}{R(s)} = \frac{G(s)}{1 \pm G(s) \cdot H(s)}$$



- Rule no 4: Associative law  
The order of summing point can be changed if two or more summing points are in series





• Rule no 5: move summing point before a block.

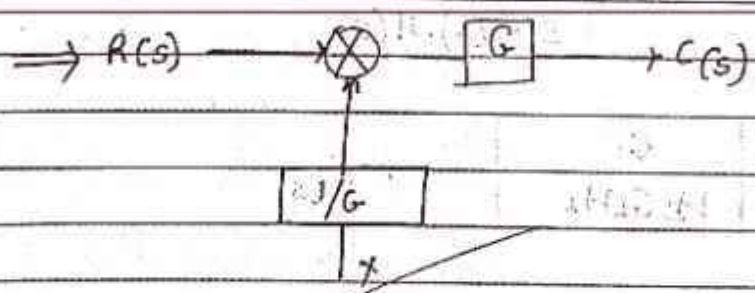
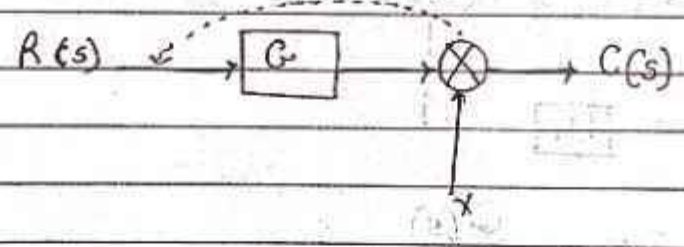
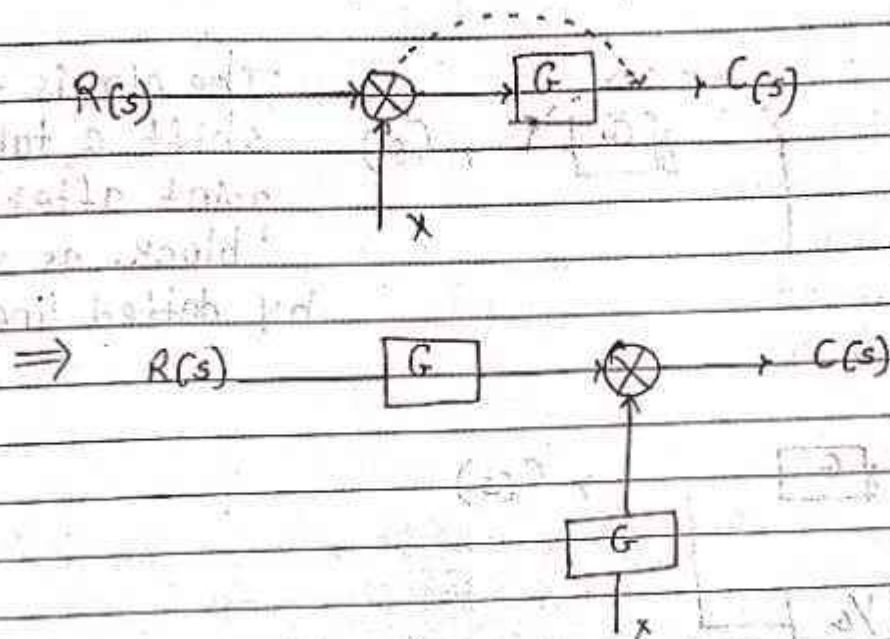


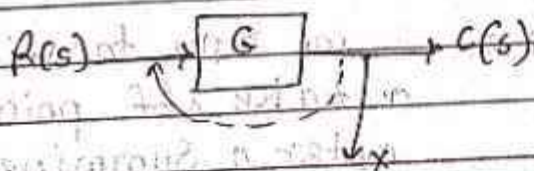
figure a summing point needs to be shifted before G as show in dotted line.



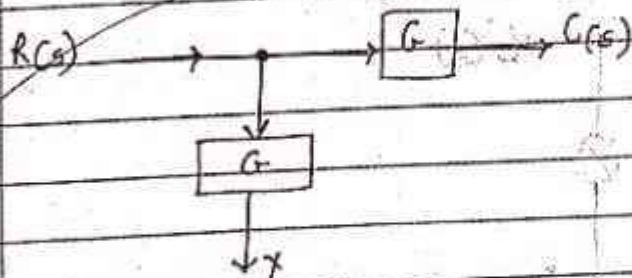
- Rule no. 6: Move summing point after a block.



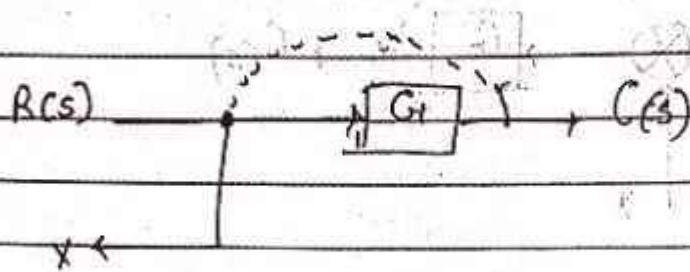
- Rule no. 7: Move take off point before a block



Here the aim is to shift the take off point before blocks as shown by dotted line

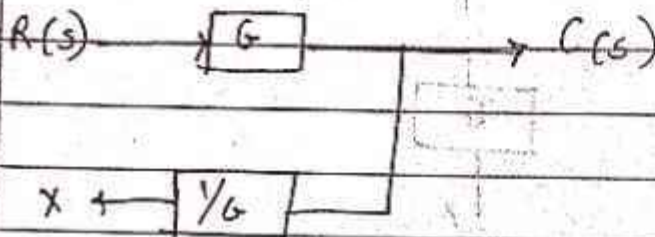


• Rule no. 8: Move take off point after a block.

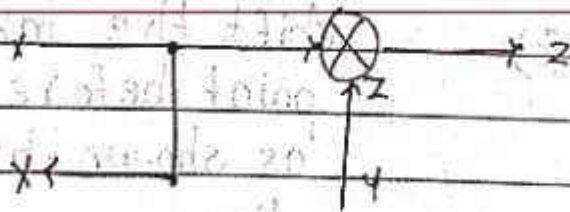


The aim is to shift a take off point after a block. as shown by dotted line.

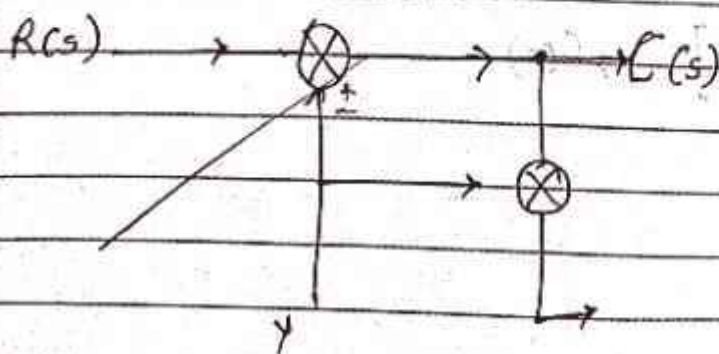
$\Rightarrow$



• Rule no. 9: Move take off point after a summing point.

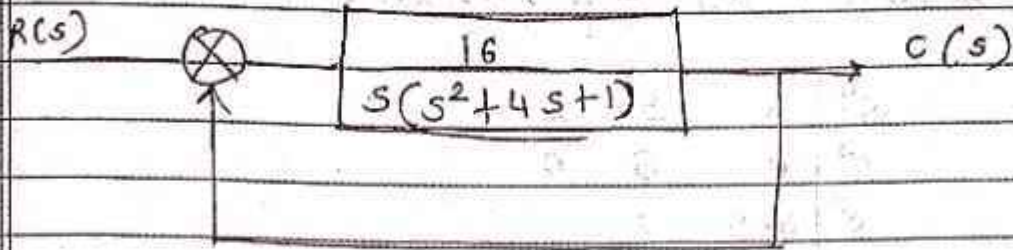


we have to shift a take off point after a summing point shown by dotted line.



# Tutorial - 3

1)



→  $G(s) = \frac{16}{s(s^2 + 4s + 1)}$

$\frac{16}{s(s^2 + 4s + 1)}$

$1 + \left( \frac{16}{s^2 + 4s + 1} \right)$

Denote characteristics equation will be zero.

$1 + \frac{16}{s(s^2 + 4s + 1)} = 0$

~~$s(s^2 + 4s + 1) + 16 = 0$~~

~~$s^3 + 4s^2 + s + 16 = 0$~~

|       |    |    |
|-------|----|----|
| $s^3$ | 1  | 1  |
| $s^2$ | 4  | 16 |
| $s^1$ | -3 |    |
| $s^0$ | 16 |    |

$a_1 = \frac{4 - 16}{4} = -3$

$b_1 = \frac{(-3 \times 16)}{-3} = (4 \times 0)$

$b_1 = 16$



$$2) 3s^4 + 10s^3 + 5s^2 + 5s + 2 = 0$$

|       |             |   |   |
|-------|-------------|---|---|
| $s^4$ | 3           | 5 | 2 |
| $s^3$ | 10          | 5 | 0 |
| $s^2$ | $3 \cdot 5$ | 2 |   |
| $s^1$ | -0.71       | 0 |   |
| $s$   | 2           |   |   |

$$a_1 = \frac{50 - 15}{10}$$

$$a_2 = \frac{20}{10}$$

$$a_1 = 3.5$$

$$a_2 = 2$$

$$b_1 = \frac{(3.5 \times 5) - (20)}{3.5} \quad b_2 = 0$$

$$b_1 = 0.71$$

$$c_1 = \frac{(-0.71 \times 2) - 0}{-0.71}$$

$$c_1 = 2$$

$$3) 12s^4 + 15s^3 + 15s + 3 = 0$$

$$12s^4 + 15s^3 + 15s^2 + 15s + 3 = 0$$

|       |       |    |   |
|-------|-------|----|---|
| $s^4$ | 12    | 15 | 3 |
| $s^3$ | 15    | 15 | 0 |
| $s^2$ | 11    | 3  | 0 |
| $s^1$ | 10.90 | 0  |   |
| $s_0$ | 3     |    |   |







## Dr. J. J. Magdum College of Engineering

Electronics and Telecommunication Engg [2022-23]

Title : LIC QUIZ

Subject : Linear integrated Circuits - Theory

Faculty : SUPRIYA KARADGE

Year : SE - SE

Date : Wed 24 May, 2023

Marks : 10

Duration : 30 Minutes

1 ] Question : 1. Find the output voltage of an ideal op-amp. If  $V_1$  and  $V_2$  are the two input voltages [Single Correct] [1 Marks]

- 1 ) a)  $V_O = V_1 - V_2$
- 2 )  b)  $V_O = A \times (V_1 - V_2)$
- 3 ) c)  $V_O = A \times (V_1 + V_2)$
- 4 ) d)  $V_O = V_1 \times V_2$

Explanation :

Bloom's Level: Remember

2 ] Question : How will be the output voltage obtained for an ideal op-amp? [Single Correct] [1 Marks]

- 1 )  a) Amplifies the difference between the two input voltages
- 2 ) b) Amplifies individual voltages input voltages
- 3 ) c) Amplifies products of two input voltage
- 4 ) d) None of the mentioned

Explanation :

Bloom's Level: Remember

3 ] Question : Which factor determine the output voltage of an op-amp? [Single Correct] [1 Marks]

- 1 ) a) Positive saturation
- 2 ) b) Negative saturation
- 3 )  c) Both positive and negative saturation voltage
- 4 ) d) Supply voltage

Explanation :

Bloom's Level: Remember, Evaluate

4 ] Question : In which configuration does the op-amp function as a high gain amplifier? [Single Correct] [1 Marks]

- 1 ) a) Differential amplifier
- 2 ) b) Inverting amplifier
- 3 ) c) Non-inverting amplifier
- 4 )  d) All of the mentioned

Explanation :

Bloom's Level: Remember, Analyze

5 ] Question : Find the output of inverting amplifier? [Single Correct] [1 Marks]

- 1 ) a)  $V_o = AV_{in}$
- 2 )  b)  $V_o = -AV_{in}$
- 3 ) c)  $V_o = -A(V_{in1} - V_{in2})$
- 4 ) d) None of the mentioned

Explanation :

Bloom's Level: Remember

6 ] Question : Why open-loop op-amp configurations are not used in linear applications? [Single Correct] [1 Marks]

- 1 ) a) Output reaches positive saturation
- 2 ) b) Output reaches negative saturation
- 3 )  c) Output switches between positive and negative saturation



4 ) d) Output reaches both positive and negative saturation

**Explanation :**

**Bloom's Level:** Remember

7 ) **Question :** A feedback amplifier is also called as [Single Correct] [1 Marks]

- 1 ) a) Open loop amplifier
- 2 )  b) Closed loop amplifier
- 3 ) c) Feedback network amplifier
- 4 ) d) Looped network amplifier

**Explanation :**

8 ) **Question :** How many types of configuration are available for feedback amplifier? [Single Correct] [1 Marks]

- 1 ) a) Six
- 2 )  b) Four
- 3 ) c) Two
- 4 ) d) Eight

**Explanation :**

**Bloom's Level:** Remember

9 ) **Question :** Select the specifications that implies the inverting amplifier? [Single Correct] [1 Marks]

- 1 ) a)  $V_1 = -3v, V_2 = -4v$
- 2 ) b)  $V_1 = -2v, V_2 = 3v$
- 3 ) c)  $V_1 = 5v, V_2 = 15v$
- 4 )  d)  $V_1 = 0v, V_2 = 5v$

**Explanation :**

**Bloom's Level:** Evaluate

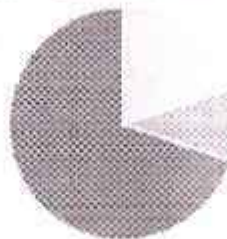
10 ) **Question :** Voltage follower is also called as [Single Correct] [1 Marks]

- 1 ) a) None of the mentioned
- 2 )  b) Non-inverting amplifier
- 3 ) c) Inverting amplifier
- 4 ) d) Normal buffer

**Explanation :**

Marks distribution as per Bloom's level

Create
  Evaluate
  Analyze
  Apply
  Understand
  Remember



| Bloom's Level | Linked Question Count | Marks | Percentage |
|---------------|-----------------------|-------|------------|
| Create        | 0                     | 0     | 0.00       |
| Evaluate      | 2                     | 2     | 20.00      |
| Analyze       | 1                     | 1     | 10.00      |
| Apply         | 0                     | 0     | 0.00       |
| Understand    | 0                     | 0     | 0.00       |
| Remember      | 7                     | 7     | 70.00      |



**0** Units | 
 **0** Course Outcome | 
 **0** Learning Outcome / Unit Outcome | 
 **66** Students

### COMPUTER NETWORKS

Course Code: Not yet updated  
 Course Credits: 0  
 Course Biometriz: Not yet updated  
 Group: SEM-VII  
 Faculty: SUPRIYA KARADGE

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#### Attendance

Present Percentage

Attendance Report: [View Attendance\(s\)](#)





### Learning Method and ICT tools used

| Sr. No. | Learning method                      | ICT tool                                                                                                                                                                                                                                                                |
|---------|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1       | Class Room Learning                  | PPTs / Study material                                                                                                                                                                                                                                                   |
| 2       | Blended Learning                     | <ul style="list-style-type: none"><li>• NPTEL videos,</li><li>• You tube and other academy videos</li><li>✓ • Value Added Courses</li><li>• Google meet, Microsoft Teams for online lectures.</li><li>• E journal &amp; E books</li><li>• Open source Library</li></ul> |
| 3       | Experiential / Field learning        | <ul style="list-style-type: none"><li>• Study of software in syllabus</li><li>• Virtual Labs</li><li>✓ • Industrial visits</li><li>• In plant Training</li><li>• Internship</li><li>✓ • Augmentation Programs</li></ul>                                                 |
| 4       | Participative Learning               | <ul style="list-style-type: none"><li>• Projects</li><li>• Mini Project</li><li>• Seminar</li><li>✓ • SITP/FDP attended</li><li>• STTP/FDP Organized</li><li>• Expert / Guest Conducted</li><li>• Participation in Tech event</li></ul>                                 |
| 5       | Problem Solving Methodologies by ICT | <ul style="list-style-type: none"><li>• Tutorial</li><li>• Assignments</li><li>• Quizzes</li><li>• ERP Soft ware</li></ul>                                                                                                                                              |

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subject - cloud computing

class - BTech CSEM - II

Faculty Name - Mrs. J. T. Patil

12/14/2023

**CLOUD COMPUTING**

**Unit III**  
**Cloud Computing Architecture**

By  
Mrs. J. T. Patil,  
Assistant Professor,  
Department of IT,  
J.J. Magnum College of Engineering

**INDEX**

- ✓ Cloud Reference Model,
- ✓ Types of Clouds,
- ✓ Economics of Clouds,
- ✓ Open Challenges,
- ✓ Cloud Platforms in Industry: Amazon Web Services, Google App Engine, And Microsoft Azure.

**INTRODUCTION**

✓ **What is cloud?**

- ✓ The term **Cloud** refers to a **Network or Internet**. In other words, we can say that **Cloud** is something which is present at **remote location**
- ✓ Cloud can provide services over network, i.e., on public networks or on private networks, i.e., **WAN, LAN or VPN**.
- ✓ Applications such as **e-mail, web conferencing, customer relationship management (CRM)**, all run in cloud.

**INTRODUCTION**

✓ **What is cloud Computing?**

- ✓ **Cloud Computing** refers to manipulating, configuring, and accessing the applications **online**
- ✓ It offers online data storage, infrastructure and application. We need not to install a piece of software on our local PC and this is how the cloud computing overcomes platform dependency issue.
- ✓ Hence, the **Cloud Computing** is making our business application mobile and collaborative.
- ✓ It is a technology that uses remote servers on the internet to store, manage, and access data online rather than local drives. The data can be anything such as files, images, documents, audio, video, and more.

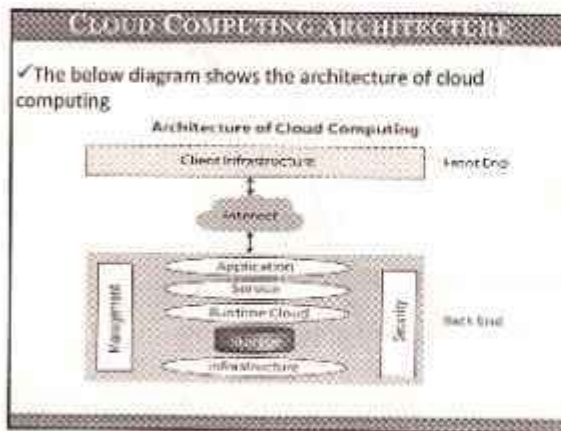
**BENEFITS**

✓ Cloud Computing has numerous advantages,

**CLOUD COMPUTING ARCHITECTURE**

- ✓ cloud computing technology is used by both small and large organizations to **store the information** in cloud and access it from anywhere at anytime using the internet.
- ✓ Cloud computing architecture is a combination of **service-oriented architecture and event-driven architecture**.
- ✓ Cloud computing architecture is divided into the following two parts -
- ✓ Front End
- ✓ Back End





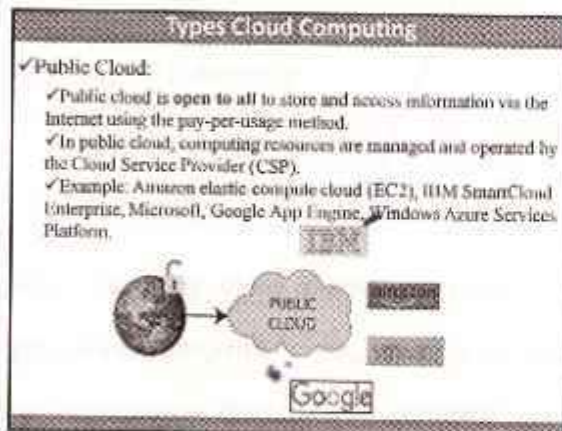
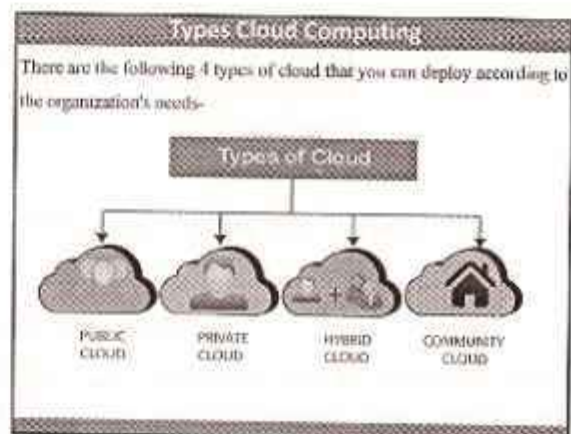
### Components of Cloud Computing Architecture

There are the following component of cloud computing architecture -

- 1. Client Infrastructure:**
  - ✓ Client Infrastructure is a Front end component. It provides GUI (Graphical User Interface) to interact with the cloud.
- 2. Application:**
  - ✓The application may be any software or platforms that a client wants to access.
- 3. Service:**
  - ✓A Cloud Services manages that which type of service you access according to the client's requirement.
- 4. Runtime Cloud:**
  - ✓Runtime Cloud provides the execution and runtime environment to the virtual machines.
- 5. Storage:**
  - ✓Storage is one of the most important components of cloud computing. It provides a huge amount of storage capacity in the cloud to store and manage data.

### Components of Cloud Computing Architecture

- 6. Infrastructure:**
  - ✓It provides services on the host level, application level, and network level. Cloud infrastructure includes hardware and software components such as servers, storage, network devices, virtualization software, and other storage resources that are needed to support the cloud computing model.
- 7. Management:**
  - ✓Management is used to manage components such as application, service, runtime, cloud, storage, infrastructure, and other security issues in the backend and establish coordination between them.
- 8. Security:**
  - ✓Security is an in-built back end component of cloud computing. It implements a security mechanism in the back end.
- 9. Internet:**
  - ✓The Internet is medium through which front end and back end can interact and communicate with each other.



### Types Cloud Computing

✓Advantages of Public Cloud:

There are the following advantages of Public Cloud -

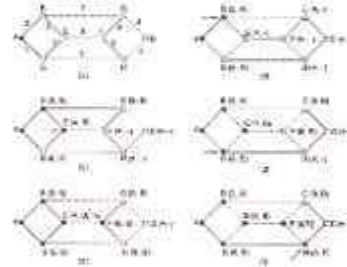
- ✓Public cloud is owned at a lower cost than the private and hybrid cloud.
- ✓Public cloud is maintained by the cloud service provider, so do not need to worry about the maintenance.
- ✓Public cloud is easier to integrate. Hence it offers a better flexibility approach to consumers.
- ✓Public cloud is location independent because its services are delivered through the internet.
- ✓Public cloud is highly scalable as per the requirement of computing resources.
- ✓It is accessible by the general public, so there is no limit to the number of users.



### Routing Algorithms

- The Optimality Principle
- Shortest Path Routing
- Flooding
- Distance Vector Routing
- Link State Routing
- Hierarchical Routing
- Broadcast Routing
- Multicast Routing
- Routing for Mobile Hosts
- Routing in Ad Hoc Networks

### Shortest Path Routing



The first 5 steps used in computing the shortest path from A to D.  
 The arrows indicate the working node.

### Flooding

```

define MAX_NODES 1024 // maximum number of nodes in
define INFINITY 10000000 // a number larger than any maximum path
define MAX_NODES/2 MAX_NODES // MAX_NODES is the distance from A to B
void shortest_path(a, set, int path[]) // the path being walked on
{
 int state; // previous node
 int length; // length from source to this node
 struct pathnode { int state; int length; };
 struct pathnode * p; // local state
 int i, min;
 struct state * sp;
 for (i = 0; i < MAX_NODES; i++) // initialize state
 {
 p->predecessor = -1;
 p->length = INFINITY;
 p->label = tentative;
 }
 state[0].length = 0; state[0].label = permanent;
 k = 0; // k is the initial working node
 }

```

Dijkstra's algorithm to compute the shortest path through a graph.

### Flooding (2)

```

int i; // i is the current path from K to
// the graph has finished
if (state[i].label == permanent)
 continue; // skip this node
state[i].length = state[0].length + link[i];
}
// Find the tentatively labeled node with the smallest label
k = 0; min = INFINITY;
for (i = 0; i < MAX_NODES; i++)
 if (state[i].label < min || (state[i].label == min)
 && i < k)
 min = state[i].length;
 k = i;
state[k].label = permanent;
state[k].k = k;
} // Copy the path into the output array
for (i = 0; i < MAX_NODES; i++)
 if (state[i].label == permanent)
 state[i].k = k;
 }

```

Dijkstra's algorithm to compute the shortest path through a graph.

### INTER-ADMINISTRATIVE ROUTING

Today, an internet can be so large that one routing protocol cannot handle the task of updating the routing tables of all routers. For this reason, an internet is divided into autonomous systems. An autonomous system (AS) is a group of networks and routers under the authority of a single administration. Routing inside an autonomous system is called intra-domain routing. Routing between autonomous systems is called inter-domain routing.

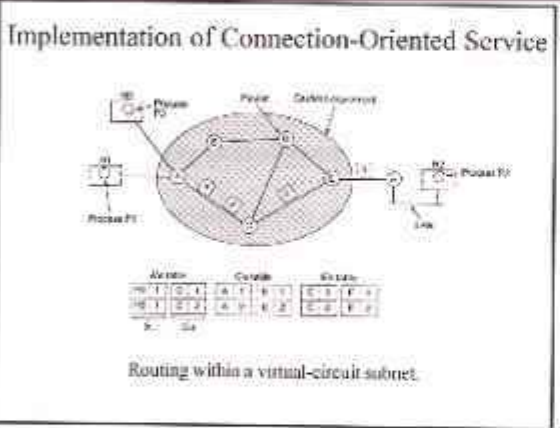
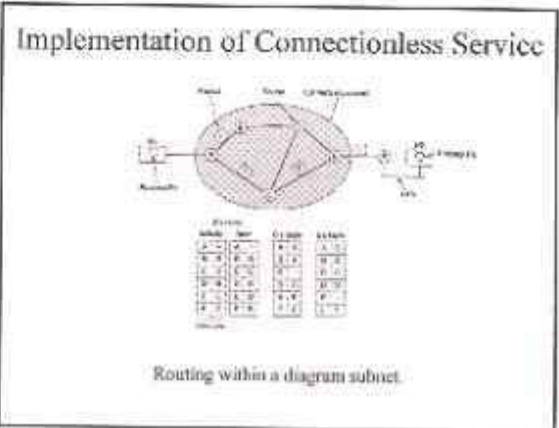
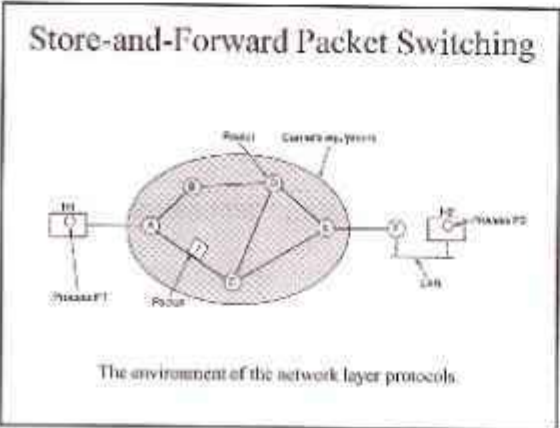


### LINK-STATE ROUTING PROTOCOLS

A routing table can be either static or dynamic. A static table is one with manual entries. A dynamic table is one that is updated automatically when there is a change somewhere in the Internet. A routing protocol is a combination of rules and procedures that lets routers in the Internet inform each other of changes.

# The Network Layer

- ## Network Layer Design Issues
- Store-and-Forward Packet Switching
  - Services Provided to the Transport Layer
  - Implementation of Connectionless Service
  - Implementation of Connection-Oriented Service
  - Comparison of Virtual-Circuit and Datagram Subnets



### Comparison of Virtual-Circuit and Datagram Subnets

| Issue                     | Datagram subnet                                                  | Virtual-circuit subnet                                             |
|---------------------------|------------------------------------------------------------------|--------------------------------------------------------------------|
| Circuit setup             | Not needed                                                       | Required                                                           |
| Addressing                | Circuit packet contains the full address and destination address | Each packet contains a short VC number                             |
| State information         | Routers do not hold state information about connections          | Each VC requires router table space per destination                |
| Routing                   | Each packet is routed independently                              | Router chooses which VC to set up; all packets follow it           |
| Effect of router failures | None, except for packets lost during the crash                   | All VCs that passed through the failed router are terminated       |
| Quality of service        | Default                                                          | Easy to enforce; resources can be allocated in advance for each VC |
| Congestion control        | Default                                                          | Easy if enough resources can be allocated in advance for each VC   |



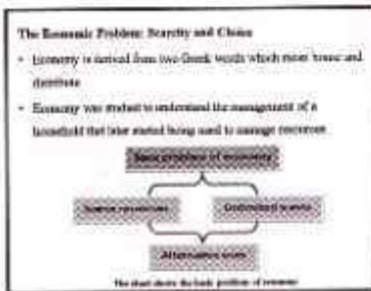


**UNIT-I**  
**Introduction to Economics**

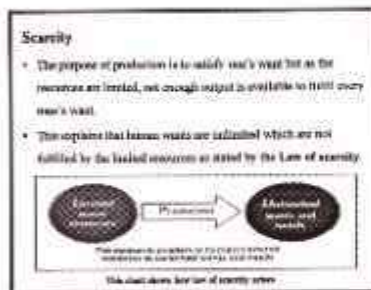
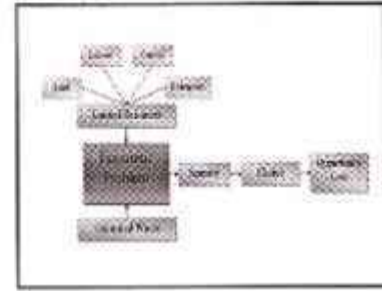
**Definitions**

- Economics is the art of making the most of life.
- The term economics is derived from Greek word *oikonomia* and *nomos* (system or law).
- Economics is often defined as a body of knowledge or study that discusses how a society tries to solve the human problem of unlimited wants & scarce resources.
- Scarcity  
– situation in which the amount of something available is insufficient to satisfy the desire for it.

- Also, there exists considerable debate as to whether economics is a science or an art.
- Because it has theoretical aspect and also an applied science in its practical aspect.
- In an ideal world, economics as a social science, it deals with society as a whole and human behaviour in particular, and studies the production, distribution and consumption of goods and services.



- The basic problem of an economy deals with the needs and wants of a man being unlimited and the resources are scarce.
- The resources refer to the factors of production that are land, labour, capital and entrepreneurship.
- Economics is the social science that studies how people use their scarce resources to satisfy unlimited needs and wants.



- The demand is high as compared to the supply, and due to insufficient resources satisfaction is not achieved.
- To overcome this, the choice is made available so man is able to use resources in such a way that maximum satisfaction can be achieved.
- For instance, a man with ₹5000 goes to a grocery store with ₹300, he would buy products in a way that when he walks out the products with him would be equal to the value of ₹300. He might want food grains, vegetables, milk, cooking materials, etc. but he would allocate the money available to him in such a way that he attains maximum satisfaction from his purchase.

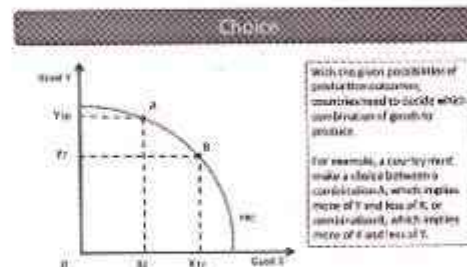
**Choice**

- Scarcity gives rise to the economic problem of choice.
- As there are limited resources, the choice is given to decide what one wishes to get by sacrificing one of his demands.
- When the choice is made there is sacrifice involved in it.
- The decision to consume a product also entails a sacrifice to get economic benefit.
- One product can only be obtained by giving up something in exchange.
- Opportunity Cost refers to the cost of sacrifice that is done to choose the next best alternative.



- For example, a farmer has 10 acres of land he has a choice to either grow wheat or cotton on it.
- The limited land is a scarcity of the resource.
- The alternative crops wheat and cotton show how we have choices.
- To grow one of the two crops the other crop's production has to be sacrificed, this is the opportunity cost involved.

- Production Possibility Curve (PPC) gives a graphical representation of how two alternatives can be used in combination to achieve maximum satisfaction.



- The above PPC curve shows different possible points of attaining satisfaction.
- Points A and B give two different combinations. At point A, X<sub>10</sub> and Y<sub>10</sub> goods are produced and at point B X<sub>12</sub> and Y<sub>7</sub> goods are produced.
- To produce more of product X, Product Y is to be produced less this is seen at point B, X<sub>12</sub> goods are produced only when good Y is decreased to Y<sub>7</sub>.
- This shows that more and more of good X is to be produced only when good Y is sacrificed at its place.
- A choice needs to be made as to what amount of a particular good can be produced to get the maximum satisfaction from the available resources.

#### Basic Assumptions:

1. Ceteris Paribus
2. Rationality

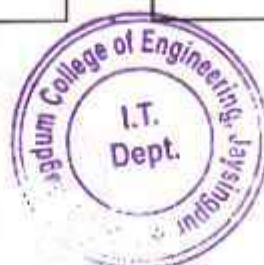
#### 1. Ceteris Paribus:

- There are different economics variables and to understand that you have to first understand this term "**ceteris paribus**".
- This is latin phrase is generally used for saying "**All Other Things Being Equal**".
- If price-less  $\Rightarrow$  demand - increased

- But no change in other things means: in taste, income of consumer, preference and government regulations... only two variables are varies price or quantity demand
- Example:

#### 2. Rationality:

- Sometimes people act rationally while taking decision about particular goods.
- This means that consumer and producers measure & compare the costs & benefits of a decision before going ahead.
- Example: whether eating at home is cheaper than going to a restaurant; whether to train the existing workers or recruit new workers; etc.
- However, it may be enjoyable to eat at restaurant; training existing workers may be costlier than hiring trained workers and so on.



- Thus, rationality involves making a choice that gives the greatest benefit relative to cost.
- All of economic theory rest on the assumption that both consumers & producers behave rationally; while firms aim at maximizing profit & minimizing cost, consumers aim at maximizing utility & minimizing sacrifice.
- So, rationality in decision making is **precondition** for attaining optimality under given constraints.

#### What is Economic Scope:

- The economic scope covers all the central issues faced by society, including economic decline and growth, poverty, unemployment, budgeting, etc.

#### Types of Economics Analysis:

- Economic analysis can be divided into following categories:

1. Micro & Macro
2. International Economics
3. Industrial Economics
4. Environmental Economics
5. Public

#### 1. Micro & Macro

##### MicroEconomics:

- Micro economics is the study of the behaviour of small economic units, such as individual consumer, a seller, or a producer, a firm, or product.
- It focuses on the basic theories of supply & demand in individual markets (cars, food items, mobile phones etc.)
- We can say that, microeconomics analyses the market behaviour of individual consumers & firms, to take the decision.

##### Macroeconomics: (macro $\Rightarrow$ large)

- Macroeconomics deals with the study of aggregates.
- In macro economics we study the industry as a unit and not the firm.
- In macroeconomics we talk about aggregate demand & aggregate supply, national income, employment etc...
- Microeconomics deals at the firm's level & consider the decision making power of individual units whereas macroeconomics deals with the economy level & consider the impact of government policies on the aggregates like national income & employment.

##### International Economics:

- International economics is a subfield within economics.
- In other words, international economics is a field concerned with economic interactions of countries and effect of international issues on the world economic activity.
- As international economic relations differ from interregional economic relations (i.e., the economic relations among different parts of the same nation), international economics requires somewhat different tools of analysis.

##### Scope of International Economics

- The scope of international economics is wide as it involves various concepts, issues and theories.

##### 1. International trade theory:

- International trade theory analyzes the basis and the gains from trade.

- Theoretical international economics is grouped into two categories as:

(i) Pure Theory of International Economics:

(ii) Monetary Theory of International Economics:



**i) Pure Theory of International Economics:**

- The pure theory of international economics deals with trade patterns, impact of trade on production, rate of consumption, and income distribution.
- It involves **microeconomic** part of international economics.

**ii) Monetary Theory of International Economics:**

- The monetary theory of international economics is concerned with issues related to balance of payments and international monetary system.
- It involves **macroeconomic** part of international economics.

**2. Descriptive International Economics:**

- Descriptive International Economics deals with institutional environment in which international transactions take place between countries.
- Descriptive international economics also **studies issues related to international flow of goods and services and financial and other resources.**

**3. International finance or open-economy macroeconomics:**

- International Economics deals with international finance which **studies how capital flows between international** by applying macroeconomic principles.
- Areas that fall within the remit of international finance are:
  - (a)**Balance of payments:** The balance of payments measures a nation's total receipts from and the total payments to the rest of the world.
  - (b)**Foreign exchange markets:** Foreign exchange markets are the institutional framework for the exchange of one national currency for others.

**4. International trade policy:**

- International trade policy examines the reasons for and the effects of trade restrictions.
- The impact of various government restrictions on production, trade, consumption, and distribution of income are covered in the study of international economics.

**5. International economic institutions:**

- International Economics studies the functioning of various emerging international economic institutions, such as World Trade Organization (WTO), International Monetary Fund (IMF), United Nations Conference on Trade Development (UNCTAD) and World Bank.

**6. Globalization:**

- With the advent of globalization, there is a rapid increase in the free flow of goods and services, capital, labor and finance between nations.
- Globalization has led to increase in **employment opportunities**, International Competition and standardization of international economic laws and policies.
- Thus, the advent of globalization has widened the field of International Economics.

Subject : ADT- I ( Java)

Class : T.Y. I.T (see-~~IT~~)

12/14/2023

Faculty Name : Prof. P.R. Patil

## UNIT-I Introduction - JAVA

Presented by,  
Prof. P. R. Patil

### What is Java?

- Java is a general-purpose programming language
- Java was developed by James Gosling, Patrick Naughton, Chris Warth, Ed Frank, and Mike Sheridan at Sun Microsystems, Inc. in 1991.
- It took 18 months to develop the first working version.
- This language was initially called "Oak," but was renamed "Java" in 1995.

- The original impetus/motivation/purpose for Java development was not the Internet!
- Instead, the primary motivation was the need for a platform-independent (that is, architecture-neutral) language that could be used to create software to be embedded in various consumer electronic devices, such as microwave ovens and remote controls.
- This second force was, of course, the World Wide Web.

### JAVA & Internet

- The Internet helped catapult Java to be the forefront or lead programming language out of all programming.
- And also Java, in turn, had a profound/great effect on the Internet.
- Java innovated a new type of networked program called the applet that changed the way the online world.
- Java also addressed some of the difficult issues associated with the Internet: portability and security

### Java Applets

- An **applet** is a special kind of Java program that is designed to be transmitted over the Internet and automatically executed by a Java-compatible web browser.
- Applets are intended to be small programs.
- They are typically used to display data provided by the server, handle user input, or provide simple functions.
- Before Java WWW was limited to display of still images & texts.
- With the help of Java WWW capable of supporting animation graphics, games and wide range of special effects.

### 1. Security

- every time you download a "normal" program, you are taking a risk, because the code you are downloading might contain a virus, Trojan horse, or other harmful code.
- For example, a virus program might gather private information, such as credit card numbers, bank account balances, and passwords, by searching the contents of your computer's local file system.
- for Java to enable applets to be downloaded and executed on the client computer safely, it was necessary to prevent an applet from launching such an attack.
- Java achieved this protection by limiting an applet to the Java execution environment and not allowing it access to other parts of the computer.



**2. Portability**

- Portability is a major aspect of the Internet because there are many different types of computers and operating systems connected to it.
- For example, in the case of an applet, the same applet must be able to be downloaded and executed by the wide variety of CPUs, operating systems, and browsers connected to the Internet.
- Means, the same code must work on all computers.
- This can be achieved by generating portable executable code.

• Here are browsers that do not support Java Applet any more:

1. Google Chrome
2. Firefox
3. Safari
4. Microsoft Edge
5. Opera

**• Difference between C and Java**

| C                                                              | Java                                                         |
|----------------------------------------------------------------|--------------------------------------------------------------|
| C is a middle-level language.                                  | Java is a high-level language.                               |
| C is a structural and procedure-oriented programming language. | Java is an object-oriented programming language.             |
| It follows the top-down approach to design the application.    | It follows the bottom-up approach to design the application. |
| It is a compiled language.                                     | It is an interpreted language.                               |
| It is platform dependent.                                      | It is platform-independent.                                  |
| There are 32 keywords in C.                                    | Java has 50 keywords.                                        |
| It does not follow OOPs concepts.                              | It follows OOPs concepts.                                    |

**• Difference between C and Java**

| C                                                | Java                                                              |
|--------------------------------------------------|-------------------------------------------------------------------|
| The file is saved with the extension .c.         | The file is saved with the extension .java.                       |
| It is not secure.                                | It is fully secured language.                                     |
| It supports the concept of the pointer.          | It does not support the concepts of pointers because of security. |
| Exception handling is not present in C language. | Exception handling is present in Java.                            |
| It does not support inheritance.                 | It supports inheritance.                                          |

**• Difference between C++ and Java**

| C++                                                    | Java                                                                                                                                 |
|--------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| C++ is platform-dependent.                             | Java is platform-independent.                                                                                                        |
| C++ is mainly used for system programming.             | Java is mainly used for application programming. It is widely used in Windows-based, web-based, enterprise, and mobile applications. |
| C++ supports multiple inheritance.                     | Java doesn't support multiple inheritance through class. It can be achieved by using interfaces in java.                             |
| C++ supports operator overloading.                     | Java doesn't support operator overloading.                                                                                           |
| C++ supports both call by value and call by reference. | Java supports call by value only. There is no call by reference in java.                                                             |

| C++                                                                                                                                            | Java                                                                                                                                                                                                                                         |
|------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| C++ supports structures and unions.                                                                                                            | Java doesn't support structures and unions.                                                                                                                                                                                                  |
| C++ uses compiler only. C++ is compiled and run using the compiler which converts source code into machine code so, C++ is platform dependent. | Java uses both compiler and interpreter. Java source code is converted into bytecode at compilation time. The interpreter executes this bytecode at runtime and produces output. Java is interpreted that is why it is platform-independent. |



## The Evolution of Java

### 1. Java 1.0 & Java 1.1

- Java 1.0, the designers of Java had already created Java 1.1. The features added by Java 1.1

### 2. Java 2 (Java2SE):

- The next major release of Java was Java 2, where the "2" indicates "second generation."
- Java 2 added support for a number of new features, such as **Swing and the Collections Framework**, and it enhanced the Java Virtual Machine and various programming tools.

### 3. J2SE 1.3

- J2SE 1.3 was the first major upgrade to the original Java 2 release.

### 4. J2SE 1.4

- The release of J2SE 1.4 further enhanced Java.
- This release contained several important upgrades, enhancements, and additions. For example, it added the new keyword **assert**, chained exceptions, and a channel-based I/O subsystem.
- It also made changes to the Collections Framework and the networking classes.

### 5. J2SE 5

- J2SE 5 fundamentally expanded the scope, power, and range of the language.

- the following list of its major new features:

1. Generics
2. Annotations
3. Autoboxing and auto-unboxing
4. Enumerations
5. Enhanced, for-each style for loop
6. Variable-length arguments (varargs)
7. Static import
8. Formatted I/O
9. Concurrency utilities

### 6. Java SE 6

- First, notice that the "2" was dropped. Thus, the platform was now named Java SE, and the official product name was Java Platform, Standard Edition 6.

- It did enhance the API libraries, added several new packages, and offered improvements to the runtime.

### 7. Java SE 7

- Java SE 7 was the next release of Java, with the Java Development Kit being called JDK 7, and an internal version number of 1.7.

- A list of the language features added by JDK 7:

1. A **String** can now control a **switch** statement.
2. Binary integer literals.
3. Underscores in numeric literals.
4. An expanded **try** statement.

### 8. Java SE 8

- The newest release of Java is Java SE 8, with the developer's kit being called JDK 8.

- JDK 8 represents a very significant upgrade to the Java language because of the inclusion of a far-reaching new language feature: **the lambda expression**.

- March 2023, **Java 20** is the latest released Java version. In September 2023, **Java 21** will follow.



**The Java Buzzwords/ Features**

1. Simple
2. Secure
3. Portable
4. Object-oriented
5. Robust
6. Multithreaded
7. Architecture-neutral
8. Interpreted
9. High performance
10. Distributed
11. Dynamic

**1. Simple:**

- If you already understand the basic concepts of object-oriented programming, learning Java will be even easier.
- Because Java inherits the C/C++ syntax and many of the object oriented features of C++.

**2. Object Oriented**

- Java is a true object-oriented programming language.
- Almost the "Everything is an Object" paradigm. All program code and data reside within objects and classes.
- The object model in Java is simple and easy to extend.

**3. Secure:**

- Java provides a "firewall" between a networked application and your computer.
- When a Java Compatible Web browser is used, downloading can be done safely without fear of viral infection or malicious intent.
- Java achieves this protection by confining a Java program to the Java execution environment and not allowing it to access other parts of the computer.

**4. Robust**

- It provides many features that make the program execute reliably in a variety of environments.
- Java is a strictly typed language. It checks code both at compile time and runtime.
- Java takes care of all memory management problems with garbage collection.
- Java, with the help of exception handling, captures all types of serious errors and eliminates any risk of crashing the system.

**5. Architecture Neutral**

- Java language and Java Virtual Machine helped in achieving the goal of "write once; run anywhere, any time".
- Changes and upgrades in operating systems, processors and system resources will not force any changes in Java Programs.

**6. Dynamic:**

- Before the development of Java, only static text was displayed in the browser. But using applet program, we can also create animation dynamically on the Internet.

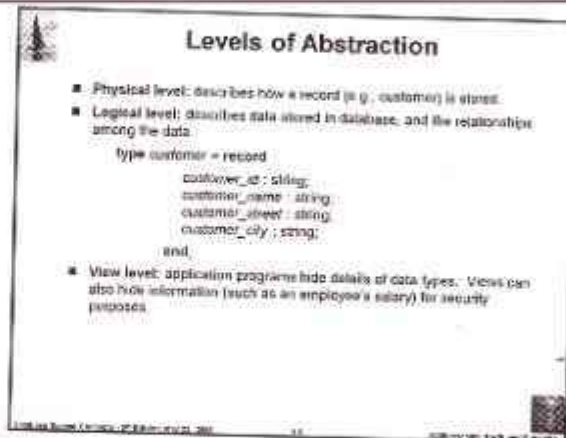
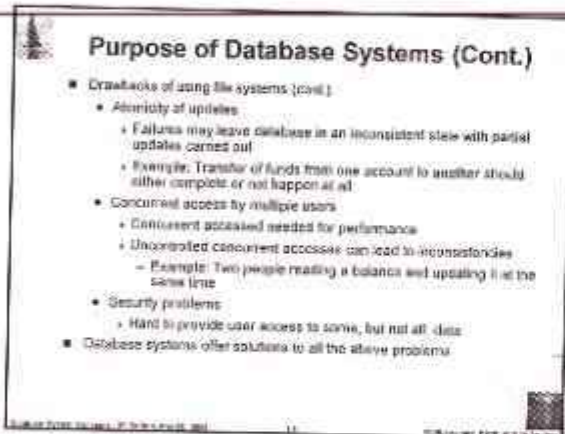
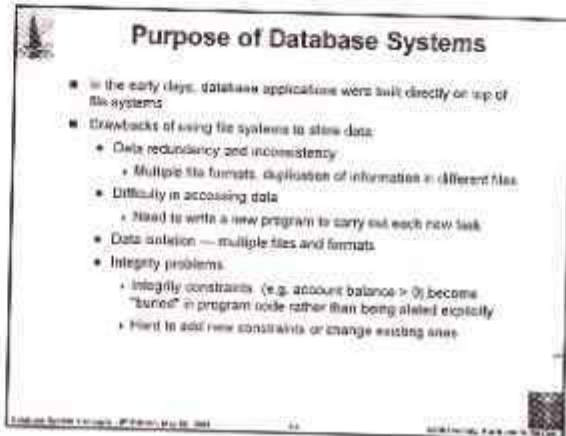
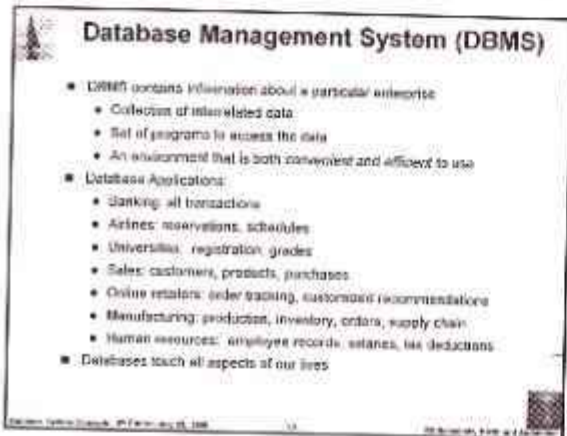
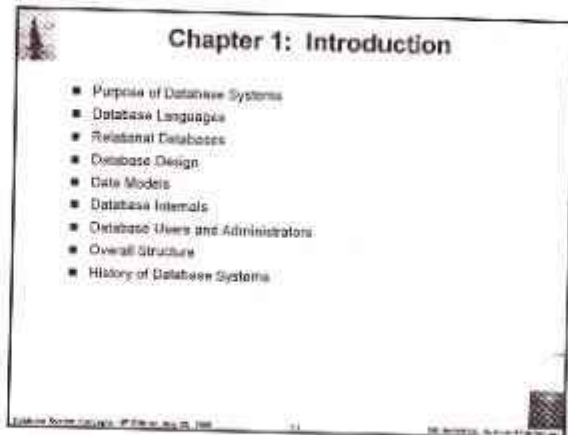
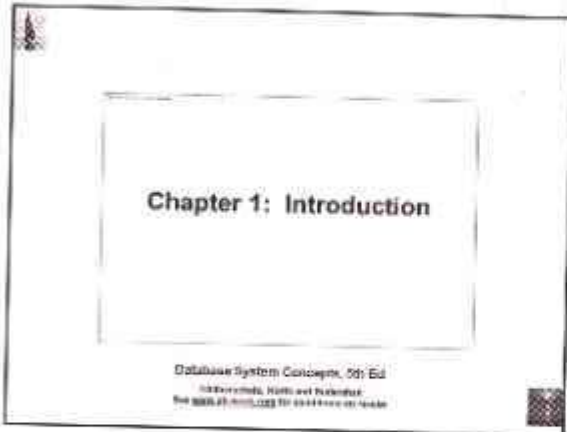
**7. Portable:**

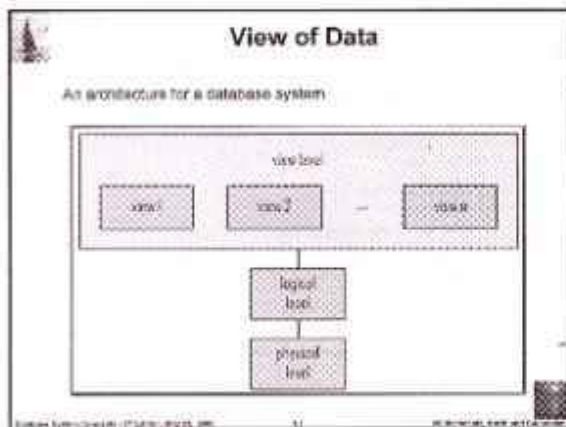
- Java is portable because of the Java Virtual Machine (JVM).
- The JVM is an abstract computing machine that provides a runtime environment for Java programs to execute.
- The JVM provides a consistent environment for Java programs to run on, regardless of the underlying hardware and operating system.
- This means that a Java program can be written on one device and run on any other device with a JVM installed, without any changes or modifications.





Subject - Database Engineering  
 class - TY. (SEM-I)  
 faculty Name - Ms. S. J. Chougule





- ### Instances and Schemas
- Similar to types and variables in programming languages
  - **Schema** – the logical structure of the database
    - Example: The database consists of information about a set of customers and associates and the relationship between them
    - Analogous to type information of a variable in a program
    - **Physical schema**: database design at the physical level
    - **Logical schema**: database design at the logical level
  - **Instance** – the actual content of the database at a particular point in time
    - Analogous to the value of a variable
  - **Physical data independence** – the ability to modify the physical schema without changing the logical schema
    - Applications depend on the logical schema
  - In general, the interfaces between the various levels and components should be well defined so that changes in some parts do not adversely affect others

- ### Data Models
- A collection of tools for describing
    - Data
    - Data relationships
    - Data semantics
    - Data constraints
  - Relational model
  - Entity-relationship data model (mainly for database design)
  - Object-based data models (Object-oriented and Object-relational)
  - Semistructured data model (XML)
  - Other older models
    - Network model
    - Hierarchical model

- ### Data Manipulation Language (DML)
- Language for accessing and manipulating the data organized by the appropriate data model
  - DML also known as query language
  - Two classes of languages
    - **Procedural** – user specifies what data is required and how to get those data
    - **Declarative (nonprocedural)** – user specifies what data is required without specifying how to get those data
  - SQL is the most widely used query language

- ### Data Definition Language (DDL)
- Specification notation for defining the database schema
  - Example: `create table account (
 
    - account_number char(10),
    - branch_name char(10),
    - balance integer)`
  - DDL compiler generates a set of tables stored in a data dictionary
  - Data dictionary contains metadata (i.e., data about data)
    - Database schema
    - Data storage and definition language
      - Specifies the storage structure and access methods used
    - Integrity constraints
      - Domain constraints
      - Referential integrity (e.g. branch\_name must correspond to a valid branch in the branch table)
    - Authorization

### Relational Model

- Example of tabular data in the relational model

| customer_id  | customer_name | customer_address | customer_city | customer_state |
|--------------|---------------|------------------|---------------|----------------|
| 100-001-4001 | Johnson       | 12 Maple St.     | Paris         | TX             |
| 100-001-7000 | Johnson       | 12 Maple St.     | Paris         | TX             |
| 100-001-6001 | Evans         | 23 Maple St.     | Houston       | TX             |
| 100-001-8001 | Tanner        | 111 Pinewood St. | Houston       | TX             |
| 101-001-2123 | Evans         | 405 Maple St.    | Houston       | TX             |
| 100-001-9000 | Lindsay       | 123 Park Ave.    | Portland      | OR             |
| 100-001-0000 | Smith         | 72 North St.     | San           | CA             |



### Keys

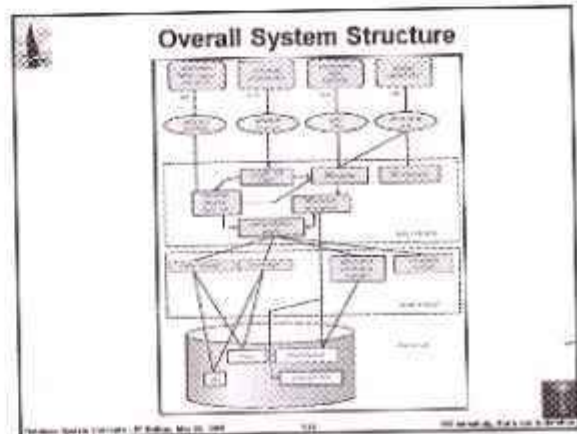
- Let  $K \subseteq R$
- $K$  is a **superkey** of  $R$  if values for  $K$  are sufficient to identify a unique tuple in each possible relation  $r(R)$ 
  - by "possible  $r$ " we mean a relation  $r$  that could exist in the universe we are modeling
- Example:  $\{customer\_name, customer\_street\}$  and  $\{customer\_name\}$  are both superkeys of *Customer*, if no two customers can possibly have the same name
  - In real life, an attribute such as *customer\_id* would be used instead of *customer\_name* to uniquely identify customers, but we will use it to keep our examples small, and instead assume customer names are unique.

### Keys (Cont.)

- $K$  is a **candidate key** if  $K$  is minimal
  - Example:  $\{customer\_name\}$  is a candidate key for *Customer*, since it is a superkey and no subset of it is a superkey.
- **Primary key**: a candidate key chosen as the principal means of identifying tuples within a relation
  - Should choose an attribute whose value never, or very rarely, changes
  - E.g. email address is unique, but may change

### Foreign Keys

- A relation schema may have an attribute that corresponds to the primary key of another relation. This attribute is called a **foreign key**
  - E.g. *customer\_name* and *account\_number* attributes of *depositor* are foreign keys to *customer* and *account* respectively.
- Only values occurring in the primary key attribute of the referenced relation may occur in the foreign key attribute of the referencing relation.



### A Sample Relational Database

The image shows three tables from a relational database:

- CUSTOMER**: Columns include customer\_id, name, address, and phone.
- DEPOSITOR**: Columns include depositor\_customer\_id, account\_number, and amount.
- ACCOUNT**: Columns include account\_number, customer\_id, and balance.

### SQL

- SQL: widely used non-procedural language
  - Example: Find the name of the customer with customer-id 162-83-7455
 

```
select customer.customer_name
from customer
where customer.customer_id = '162-83-7455'
```
  - Example: Find the balances of all accounts held by the customer with customer id 162-83-7455
 

```
select account.balance
from depositor, account
where depositor.customer_id = '162-83-7455' and
depositor.account_number = account.account_number
```
- Application programs generally access databases through one of
  - Language extensions to allow embedded SQL
  - Application program interface (e.g., ODBC/ODBC) which allow SQL queries to be sent to a database

### Database Design

The process of designing the general structure of the database

- Logical Design – Deciding on the database schema. Database design requires that we find a "good" collection of relation schemes.
  - Business decision – What attributes should we record in the database?
  - Computer science decision – What relation schemas should we have and how should the attributes be distributed among the various relation schemes?
- Physical Design – Deciding on the physical layout of the database

### Database Users

Users are differentiated by the way they expect to interact with the system

- Application programmers – interact with system through DBL calls
- Sophisticated users – form requests in a database query language
- Specialized users – write specialized database applications that do not fit into the traditional data processing framework
- Naïve users – invoke one of the permanent application programs that have been written previously
  - Examples: people accessing database over the web, bank tellers, clerical staff

### Database Administrator

- Coordinates all the activities of the database system
  - Has a good understanding of the enterprise's information resources and needs.
- Database administrator's duties include:
  - Storage structure and access method definition
  - Schema and physical organization modification
  - Granting users authority to access the database
  - Backing up data
  - Monitoring performance and responding to changes
    - Database tuning

### The Entity-Relationship Model

- Models an enterprise as a collection of entities and relationships
  - Entity: a "thing" or "object" in the enterprise that is distinguishable from other objects
    - Described by a set of attributes
  - Relationship: an association among several entities
- Represented diagrammatically by an entity-relationship diagram

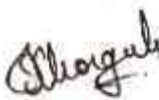


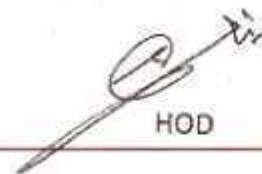


Dr. J. J. Magdum Trust's (No. E/902)  
**Dr. J. J. Magdum College of Engineering, Jaysingpur**  
**Department of Information Technology**

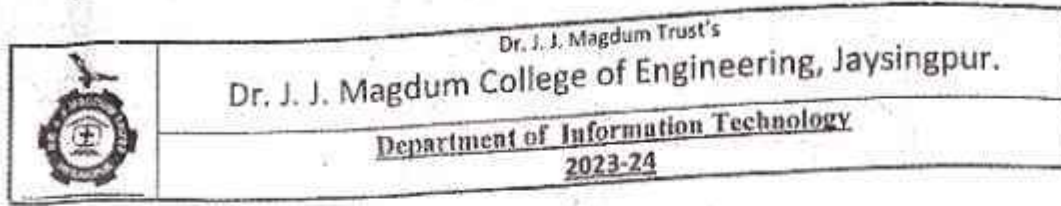
**Value Added Program Summery**

| SR | Classes | Year    | Duration | Topic                  | No of student attended | Date                                          |
|----|---------|---------|----------|------------------------|------------------------|-----------------------------------------------|
| 1  | TY      | 2022-23 | 30Hr     | Blockchain and web3    | 50                     | 31/7/2023,4/8/2023,5/8/2023,6/8/2023,7/8/2023 |
| 2  | SY      | 2023-24 | 30Hr     | Python Programming,    | 65                     | 3/11/2023,4/11/2023, 24/11-26/11/2023         |
| 3  | B Tech  | 2023-24 | 30Hr     | Spring Boot, Hibernate | 60                     | 5/11/2023,6/11/2023<br>- In process           |

  
dept IQAC Co-ordinator

  
HOD





Date: 26-07-2023

To,  
The IQAC Head,  
Dr. J. J. Magdum College of Engineering,  
Jaysingpur.

Subject: permission for Value added course on Friday 4/8/2023.

Respected Sir/Madam,

We are organizing Value added course to TE students on "BlockChain Technology". For the same fee is charged Rs40,000 and it will start from 31 July 2023. Details of the course are attached with this.

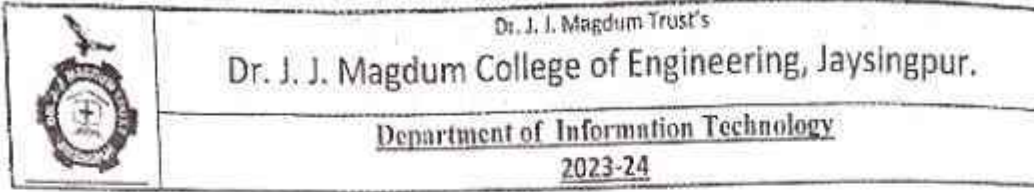
We request you to give permission for the same.

Thanking you.

  
Mrs. A. S. Patil  
VAP Coordinator



  
Mr. R. A. Bharatiya  
Head of Department



Date: 27-07-2023

To,  
The Principal/Campus Director,  
Dr. J. J. Magdum College of Engineering,  
Jaysingpur.

Subject: Permission to take Value added course on Friday 4/8/2023.

Respected Sir/Madam,

We are organizing Value added course to TE students on "Web3 and Blockchain". For the same one working day(4/8/2023) require. We will run the same time table on 19/8/2023.

We request you to give permission for the same.

of 4/8/23

Details of the course are attached with this.

Thanking you.

Prof. Mrs. A. S. Patil

*Aspatil*



*[Signature]*  
Prof. Mr. R. A. Bharatiya  
Head of Department

HOD, I.T.  
Dr. J. J. Magdum College  
of Engineering, Jaysingpur.

Recommended,

*[Signature]*  
29/7/23

## Apply for Web3 and Blockchain Training and Course Certificate Program

Course duration : 30hr

Course Domain : Web3 and Blockchain

Course Mode: Offline + Online [Hybrid]

Course Fee: ~~1000~~ 1000/- Per Student

What you will get :

- Certificate of Course completion
- Free Notes on every Topic from this Course and training
- Career guidance in Web3
- 3+ Project Implementation
- Topic-wise problem solution

Syllabus :

- Web3
- Blockchain
- Solidity
- Web3.js
- Ether.js
- Ethereum
- Token
- NFT
- Smart contract
- Metaverse
- ERC 20
- ERC721

*Arpab*

*Arpab*  
HOD, I.T.  
Dr. J. J. Meegham College  
of Engineering, Jaysingpur.





Date: -

## Schedule of Course

| Date      | Time             | Mode of teaching |
|-----------|------------------|------------------|
| 31/7/2023 | 7pm to 8.30pm    | online           |
| 1/8/2023  | 7pm to 8.30pm    | online           |
| 2/8/2023  | 7pm to 8.30pm    | online           |
| 3/8/2023  | 7pm to 8.30pm    | online           |
| 4/8/2023  | 9.30am to 4.30pm | offline          |
| 5/8/2023  | 9.30am to 4.30pm | offline          |
| 6/8/2023  | 9.30am to 4.30pm | offline          |
| 7/8/2023  | 7pm to 8.30pm    | online           |
| 8/8/2023  | 7pm to 8.30pm    | online           |

*[Handwritten signature]*

*[Handwritten signature]*

HOD, I.T.  
Dr. J.J. Magdum College  
of Engineering, Jaysingpur.

Name of resource person: Ms. Kalyani Dudhekar

Solidity and Python Developer





Dr. J. J. Magdum Trusts  
 Dr. J. J. Magdum College of Engineering, Jaysingpur  
 Department of Information Technology  
 Class - TY Btech      A.Y.2023-24  
 Attendance of Value added course if Value added course

Date: 4/8/2023

| Sew Roll no. | Name of Student            | Session            | Session            | Session            |
|--------------|----------------------------|--------------------|--------------------|--------------------|
|              |                            | I                  | II                 | III                |
| 1            | ATIGRE PRATHAM UMAJI       | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> |
| 10001-2      | BHOSALE RAJWARDHAN VIJAY   | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> |
| 0001-3       | BHOSALE SAHIL ARVIND       | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> |
| 10001-4      | CHAVAN AKSHAY DAYANAND     | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> |
| 5            | CHIKHALKAR SHRIHARI SANDIP | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> |
| 6            | CHOUGALE KETAN BABASO      | -                  | -                  | -                  |
| 7            | CHOUGULE AJAY SHIVAJI      | -                  | -                  | -                  |
| 8            | DALAVI SWAPNIL ANANDA      | -                  | -                  | -                  |
| 10001-9      | *DESAI SALONI DILIP        | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> |
| 10           | DESHMANE SHREYASH SHRIKANT | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> |
| 11           | DIVATE ATHARV ASHOK        | -                  | -                  | -                  |
| 12           | *DOMANE SAKSHI YUVARAJ     | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> |
| 13           | DUDHAL VIJAY SUNIL         | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> |
| 10001-14     | *FAKIR MUSKAN MAKBUL       | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> |
| 15           | *GAIKWAD KALYANI AMOL      | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> |
| 16           | GAIKWAD SHREYASH SANTOSH   | -                  | -                  | -                  |
| 17           | GAVHANE ARYAN VIKAS        | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> |
| 18           | GUJAR SHREYASH ANAND       | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> |
| 19           | *GURAV SIDDHI DILIP        | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> |
| 10001-20     | *HONGEKAR ANJALI NANDKUMAR | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> |
| 21           | HULWAN SHANTANU JAYDESI    | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> |
| 22           | *INDALKAR ANTARI SHIVAJI   | -                  | <i>[Signature]</i> | <i>[Signature]</i> |
| 23           | INGOLE RAVIRAJ NAMDEO      | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> |
| 24           | JADHAV SANKET SHIVAJI      | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> |
| 25           | JADHAV SHIVAM SANJAY       | -                  | -                  | -                  |
| 26           | JARAO DNYANESHWAR SAMPAT   | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> |
| 10001-27     | KAJI SAHIL SHABBIR         | <i>[Signature]</i> | <i>[Signature]</i> | <i>[Signature]</i> |
| 28           | KALP C. VINODKAR BHARAT    | -                  | -                  | -                  |
| 29           | KATKAR ANUSH EKMAITH       | -                  | -                  | -                  |
| 30           | KHADE PRATIK TANAJI        | -                  | -                  | -                  |

Present in (3)



|    |                               |         |         |         |
|----|-------------------------------|---------|---------|---------|
| 1  | *KHALATE SAMIDHA PRAMOD       | -       | -       | -       |
| 32 | *KOLEKAR SAKSHI AJIT          | Kolekar | Kolekar | Kolekar |
| 33 | KUNDEKAR BIHARAT UTTAM        | B.K.    | B.K.    | B.K.    |
| 34 | LANJEWAR PALASHI NAGSEN       | -       | -       | -       |
| 35 | *LAYKAR AMRUTA CHANDRAKANT    | Amrut   | Amrut   | Amrut   |
| 36 | MAGDUM ABHISHEK SHAM KAR      | Amrut   | Amrut   | Amrut   |
| 37 | *MANE AVANTIKA AJAY           | A.Mane  | A.Mane  | A.Mane  |
| 38 | *MANE GOURI GANESH            | Mane    | Mane    | Mane    |
| 39 | MANE KIRAN VILAS              | -       | -       | -       |
| 40 | *MANE PRERANA ASHOK           | -       | -       | -       |
| 41 | *MANE SHREYA DINKAR           | Mane    | Mane    | Mane    |
| 42 | MANE VIKARSHI DILIP           | -       | -       | -       |
| 43 | MOHITE SUYOG SUNIL            | -       | -       | -       |
| 44 | NIKAM MAHADEV PANDURANG       | -       | -       | -       |
| 45 | NILKANTH ANSHUL UMESH         | -       | -       | -       |
| 46 | *PATHAN SHAHIN HAKEEMASAB     | Pathan  | Pathan  | Pathan  |
| 47 | PATIL ADITYA RAVSAHEB         | Patil   | Patil   | Patil   |
| 48 | *PATIL ARJU ASHOK             | Patil   | Patil   | Patil   |
| 49 | PATIL AVINASH PANDURANG       | Patil   | Patil   | Patil   |
| 50 | PATIL JINENDRA RAVINDRA       | Patil   | Patil   | Patil   |
| 51 | PATIL MAHESH CHANDRAKANT      | Patil   | Patil   | Patil   |
| 52 | *PATIL SAMARTHA AJIT          | Patil   | Patil   | Patil   |
| 53 | PATIL SAMMED GUNDHAR          | Patil   | Patil   | Patil   |
| 54 | PATIL SAMMED SHANTINATH       | Patil   | Patil   | Patil   |
| 55 | PATIL SAMRUDDH DATTATRAY      | -       | -       | -       |
| 56 | *PATIL SANIKA UTTAM           | -       | -       | -       |
| 57 | *PAWAR SHRADDHA TANAJI        | -       | -       | -       |
| 58 | *PHALLE ASMITA RAMESH         | Phalle  | Phalle  | Phalle  |
| 59 | *POWAR PALLAVI TANAJI         | Phalle  | Phalle  | Phalle  |
| 60 | RAUT PRATHAMESH PRASHANT      | -       | -       | -       |
| 61 | SANGAL RAJESH SAHIN           | -       | -       | -       |
| 62 | *SANGAL RAISHIWARAYA PRAKASH  | Sangal  | Sangal  | Sangal  |
| 63 | *SHAIKJI AYESHASIDDHA MEHROOB | -       | Shaiikh | Shaiikh |
| 64 | SHENDE DINKAR MADHUKAR        | Shende  | Shende  | Shende  |
| 65 | SHENDE PRATHIMESH RAVINDRA    | -       | -       | -       |



|    |                                                            |        |        |        |
|----|------------------------------------------------------------|--------|--------|--------|
| 66 | *SHINDE VAISHNVI SANJAY<br>THORAT RAJWARDHAN<br>DHANAJIRAO | Member | Member | Member |
| 67 | *VASEDEV PRADNYA SUNIL                                     | Member | Member | Member |
| 68 | *WANKAR MUSKAN AMR                                         | Member | Member | Member |
| 70 | YADAV SWARUP MAHADEV                                       | -      |        |        |



Dr. J. J. Maudhum Trusts  
 Dr. J. J. Maudhum College of Engineering, Jaysingpur  
 Department of Information Technology  
 Class - TY Btech      A.Y.2023-24  
 Attendance of Value added course if Value added course  
 Date: 5/8/2023

| New Roll no. | Name of Student              | Session I | Session II | Session III |
|--------------|------------------------------|-----------|------------|-------------|
| 1            | AIGRE PRATHAM UMAR           | P.P.P.    | P.P.P.     | P.P.P.      |
| 2            | BHOSALE RAJWARDHAN VIJAY     | P.P.P.    | P.P.P.     | P.P.P.      |
| 3            | BHOSALE SAHIL ARVIND         | P.P.P.    | P.P.P.     | P.P.P.      |
| 4            | CHAVAN AKSHAY DAYANAND       |           |            |             |
| 5            | CHIKHAIKAR SHRIHARI SANDIP   |           |            |             |
| 6            | CHOUGALE KETAN BABASO        |           |            |             |
| 7            | CHOUGALE AJAY SHIVAJI        |           |            |             |
| 8            | DALAVI SWAPNIL ANANDA        |           |            |             |
| 9            | *DESAI SALONI DILIP          | P.P.P.    | P.P.P.     | P.P.P.      |
| 10           | DESHIMANE SHREYASHI SHRIKANT | P.P.P.    | P.P.P.     | P.P.P.      |
| 11           | DIVATE ATHARV ASHOK          |           |            |             |
| 12           | *DOMANE SAKSHI YUVARAJ       | P.P.P.    | P.P.P.     | P.P.P.      |
| 13           | DUDHAL VIJAY SUNIL           | P.P.P.    | P.P.P.     | P.P.P.      |
| 14           | *FAKIR MUSKAN MAKBUL         | P.P.P.    | P.P.P.     | P.P.P.      |
| 15           | *GAIKWAD KALYANI AMOL        | P.P.P.    | P.P.P.     | P.P.P.      |
| 16           | GAIKWAD SHREYASHI SANTOSHI   |           |            |             |
| 17           | GAVHANE ARYAN VIKAS          |           |            |             |
| 18           | GULAR SHREYASHI ANAND        |           |            |             |
| 19           | *GURAV SIDDHI DILIP          | P.P.P.    | P.P.P.     | P.P.P.      |
| 20           | *HONGEKAR ANJALI NANDKUMAR   | P.P.P.    | P.P.P.     | P.P.P.      |
| 21           | HULWAN SHANTANU JAYDEEP      | P.P.P.    | P.P.P.     | P.P.P.      |
| 22           | *INDALKAR ANTARI SHIVAJI     | P.P.P.    | P.P.P.     | P.P.P.      |
| 23           | INGOLE RAVIRAJ NAMDRO        |           |            |             |
| 24           | JADHAV SANKET SHIVAJI        |           |            |             |
| 25           | JADHAV SHIVAM SANJAY         |           |            |             |
| 26           | JARAG DNYANESHWAR SAMPA      |           |            |             |
| 27           | KAJI SAHIL SHADHIR           | P.P.P.    | P.P.P.     | P.P.P.      |
| 28           | KALEL AVISHIKAR BHARAT       |           |            |             |
| 29           | KATKAR AYUSHI EKNATH         |           |            |             |
| 30           | KHADE PRATIK TANAJI          |           |            |             |



|    |                                   |                |                |                |
|----|-----------------------------------|----------------|----------------|----------------|
| 31 | *KHALATH SAMIDHA PRAMOD           |                |                |                |
| 32 | *KOLEKAR SAKSHI AJIT              | <i>Kolekar</i> | <i>Kolekar</i> | <i>Kolekar</i> |
| 33 | KUNDEKAR BIHARAT UTTAM            | <i>Kunde</i>   | <i>Kunde</i>   | <i>Kunde</i>   |
| 34 | LANJWAR PALASH NAGESH             |                |                |                |
| 35 | *LAYKAR AMRUTA<br>CHANDRAKANT     | <i>Laykar</i>  | <i>Laykar</i>  | <i>Laykar</i>  |
| 36 | MAGDUM ABHISHEK SHANKAR           | <i>Magdum</i>  | <i>Magdum</i>  | <i>Magdum</i>  |
| 37 | *MANE AVANTIKA AJAY               | <i>Mane</i>    | <i>Mane</i>    | <i>Mane</i>    |
| 38 | *MANE GOURI GANESH                | <i>Mane</i>    | <i>Mane</i>    | <i>Mane</i>    |
| 39 | MANE KIRAN VILAS                  |                |                |                |
| 40 | *MANE PRERANA ASHOK               |                |                |                |
| 41 | *MANE SHREYA DINKAR               | <i>Mane</i>    | <i>Mane</i>    | <i>Mane</i>    |
| 42 | MANE UTKARSH DILIP                | <i>Mane</i>    | <i>Mane</i>    | <i>Mane</i>    |
| 43 | MOHITE SUYOG SUNIL                | <i>Mohite</i>  | <i>Mohite</i>  | <i>Mohite</i>  |
| 44 | NIKAM MAHADEV PANDURANG           |                |                |                |
| 45 | NILKANTH ANSHUL UMESH             |                |                |                |
| 46 | *PATHAN SHAHIN<br>HAKEEMASAB      |                |                |                |
| 47 | PATIL ADITYA RAVSAHEB             |                |                | <i>Patil</i>   |
| 48 | *PATIL ARJU ASHOK                 | <i>Patil</i>   | <i>Patil</i>   |                |
| 49 | PATIL AVINASH PANDURANG           |                |                |                |
| 50 | PATIL JINENDRA RAVINDRA           |                |                |                |
| 51 | PATIL MAHESH CHANDRAKANT          |                |                |                |
| 52 | *PATIL SAMARTHA AJIT              |                |                | <i>Patil</i>   |
| 53 | PATIL SAMMED GUNDHAR              |                |                |                |
| 54 | PATIL SAMMED SHANTINATH           |                |                |                |
| 55 | PATIL SAMRUDDH DATTATRAY          |                |                |                |
| 56 | *PATIL SANIKA UTTAM               |                |                |                |
| 57 | *PAWAR SHIRADDHA TANAJI           |                |                |                |
| 58 | *PHALLE ASMITA RAMESH             |                |                | <i>Phalle</i>  |
| 59 | *POWAR PALLAVI TANAJI             | <i>Powar</i>   | <i>Powar</i>   | <i>Powar</i>   |
| 60 | *RAUT PRATHAMESH PRASHANT         |                |                |                |
| 61 | SANADI SOHEL SALIM                |                |                |                |
| 62 | *SANGALE AISHWARYA<br>PRAKASHI    |                |                |                |
| 63 | *SHAIKH AYESHA SIDDIQA<br>MEHBOOB |                |                |                |
| 64 | SHINDE OMKAR MADHUKAR             |                |                |                |
| 65 | SHINDE PRATHMESH RAVINDRA         |                |                |                |



|          |                                 |                    |        |        |
|----------|---------------------------------|--------------------|--------|--------|
| 66       | *SHINDE VAISHNAVI SANJAY        | shinde             | shinde | shinde |
| 67       | THORAT RAJWARDHAN<br>DHANAJIRAO |                    |        |        |
| 68       | *VASUDEV PRADNYA SUNIL          | <del>vasudev</del> |        |        |
| 10001-69 | *WANKAR MUSKAN AMIR             | <del>wankar</del>  |        |        |
| 70       | YADAV SWARUP MAHADEV            |                    |        |        |



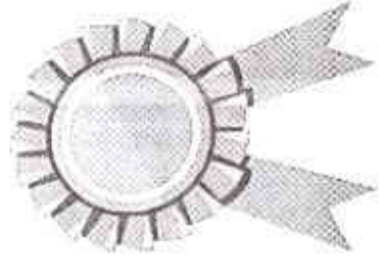
# Certificate of Completion

This Certificate is Proudly Awarded to

Domare Sakshi Yuvraj

For Successfully completing the Internship/Industrial Training/Course  
in **WEB3 DEVELOPMENT**, on offline mode for the period of **4 MONTHS**  
**/ WEEKS**. Conducted by **Xresilient, Pune**.

Date: 01/08/23 to 31/08/23





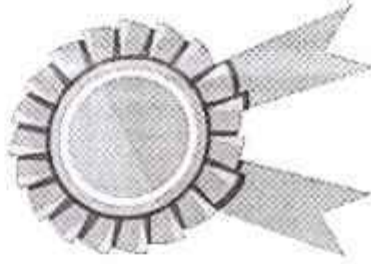
# Certificate of Completion

This Certificate is Proudly Awarded to

Deshmane Sheeyash Sheikard

For Successfully completing the Internship/Industrial Training/Course  
in **WEB3 DEVELOPMENT**, on offline mode for the period of **1 MONTHS**  
/ **WEEKS**. Conducted by **Xresilient, Pune**.

Date: 01/02/23 to 31/02/23



FOUNDER & CEO



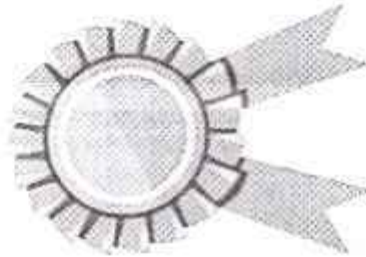
# Certificate of Completion

This Certificate is Proudly Awarded to

Chitalkar Shriharaj Sagarip

For Successfully completing the Internship/Industrial Training/Course  
in **WEB3 DEVELOPMENT**, on offline mode for the period of **1 MONTHS**  
**1 WEEKS**. Conducted by **Xresilient, Pune**.

Date: 11/08/23 to 31/08/23



# Certificate of Completion

This Certificate is Proudly Awarded to

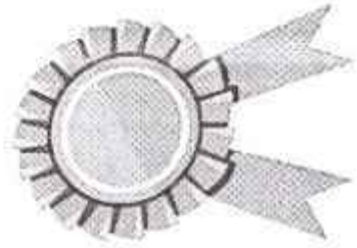
Chavan Akshay Dayanand

For Successfully completing the Internship/Industrial Training/Course  
in **WEB3 DEVELOPMENT**, on offline mode for the period of **1 MONTHS**  
/**WEEKS**. Conducted by **Xresilient, Pune**.

Date : 21/08/23 to 31/08/23



**Xresilient**  
PUNE



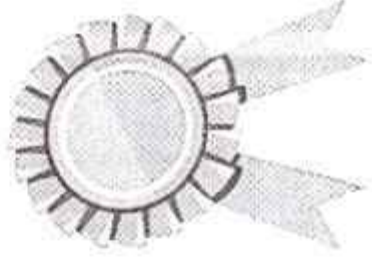
# Certificate of Completion

This Certificate is Proudly Awarded to

Bhasule Sahil Aevind

For Successfully completing the ~~Internship/Industrial Training~~/Course  
in **WEB3 DEVELOPMENT**, on offline mode for the period of 1 MONTHS  
/ WEEKS. Conducted by **Xresilient, Pune**.

Date : 21/08/23 to 31/08/23



FOUNDER & CEO



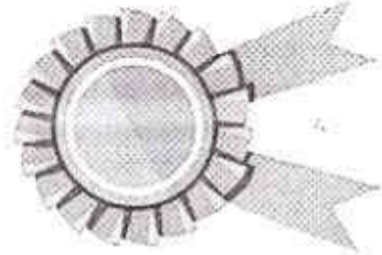
# Certificate of Completion

This Certificate is Proudly Awarded to

Adigore Peetham Umaji

For Successfully completing the Internship/Industrial Training/Course  
in **WEB3 DEVELOPMENT**, on offline mode for the period of **1 MONTHS**  
**/ WEEKS**. Conducted by **Xresilient, Pune**.

Date: 01/08/23 to 31/08/23



FOUNDER & CEO





Summery of Industrial Visit Details

| Sr.No   | Activities Details                             | Date/Duration               | Target Audience | No. of Students | Name of Faculty members                                    |
|---------|------------------------------------------------|-----------------------------|-----------------|-----------------|------------------------------------------------------------|
| 2021-22 |                                                |                             |                 |                 |                                                            |
| 1       | Domain Computer System, Sangli                 | 13 <sup>th</sup> Dec,2021   | SY              | 45              | Prof. S.J.Chougule                                         |
|         |                                                | 15 <sup>th</sup> Dec,2021   | TY              | 70              | Prof. S.J.Chougule                                         |
|         |                                                | 16 <sup>th</sup> Dec,2021   | B tech          | 78              | Prof. S.J.Chougule                                         |
| 2       | Industrial Visit to t Cognition Inc., Kolhapur | 23 <sup>th</sup> March,2022 | TY              | 39              | Prof.P.A.Tamgave,<br>Prof.R.C.Patil                        |
| 2022-23 |                                                |                             |                 |                 |                                                            |
| 1       | Domain Computer System, Sangli                 | 20 <sup>th</sup> Oct,2022   | TY              | 50              | Prof.S.B.Holkar,<br>Prof.P.A.Tamgave,                      |
| 2       | Industrial Visit to t Cognition Inc., Kolhapur | 11 <sup>th</sup> Nov,2022   | SY              | 55              | Prof.S.B.Holkar<br>Prof. S.J.Chougule<br>Prof.A.G.Chendake |
|         |                                                |                             | TY              | 56              |                                                            |

Industrial Visit Co-ordinator

Prof. S.B.Holkar

Academic Co-ordinator

Prof.J.T.Patil

HOD-IT

Prof. R.A.Bhartiya





Dr. J.J. Magdum Trust s  
Dr. J.J. Magdum College of Engineering, Jaysingpur  
Department of Information Technology

Date: 9/11/2022

To,  
The Principal,  
Dr. J. J. Magdum College of Engineering,  
Jaysingpur.

Subject: - Regarding permission for Industrial Visit.

Respected Mam,

We, from Information Technology Department of Dr. J. J. Magdum College of Engineering, Jaysingpur, are willing to organize Industrial Visit for SY and TY students of our department to a software company in Kolhapur on 11th November 2022. Our students will get knowledge about subject like Programming language, Networking & Operating system. This visit will be very helpful and beneficial to our students and academics.

**Industrial Visit details:**

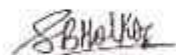
Company Name: tCognition Inc., Kolhapur

Location: Kolhapur InfoTech Park,  
Opp. Jayaprabha Studios,  
Kolhapur, Maharashtra 416012


Date: 11<sup>th</sup> November 2022

So, we request you to allow us to visit as per the above mentioned date and provide college bus.

Thanking You.

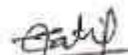
  
Prof. Mrs. S. B. Holkar  
Industrial Visit In-charge  
IT Dept.



  
Prof. Mr. R. A. Sanadi  
Head of Department,  
IT Dept.



Permitted,

  
09/11/22



Dr. J.J. Magdum Trust's  
Dr. J.J. Magdum College of Engineering, Jaysingpur  
Department of Information Technology

Date: 9/11/2022

To,  
The Principal,  
Dr. J. J. Magdum College of Engineering,  
Jaysingpur.

**Subject: - Regarding Bus facility for Industrial Visit.**

Respected Madam,

I Prof. S.B.Holkar looking after the industrial visit coordinator of IT department. We have planned to visit the company name tCognition Inc., Kolhapur. So that students of second and third year can get knowledge about subject like Programming language, Networking & Operating system. For the same we need bus facility on 11<sup>th</sup> November 2022. The student count is 135.

**Industrial Visit details:**

**Company Name: tCognition Inc., Kolhapur**

**Location: Kolhapur InfoTech Park,  
Opp. Jayaprabha Studios,  
Kolhapur, Maharashtra 416012**

**Date: 11<sup>th</sup> November 2022**

**Day: Wednesday**

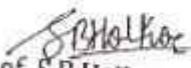
**Total Students: 135**


**Faculty: 03**

Prof.S.B.Holkar, Prof.A.G.Chendke, Prof.S.J.Chougule

So, we request you to permit us for the same.

Thanking You.

  
Prof. S.B.Holkar  
Industrial Visit In-charge  
IT Dept.

  
Prof. Mr. R. A. Sanadi  
Head of Department,  
IT Dept.







Industrial visit : t Cognition

Date: 11/11/2022

To,  
 The HR Manager,  
 tCognition Inc., Kolhapur

**Subject:** Requesting permission to visit t Cognition Inc., Kolhapur.

Dear Sir/Madam,

Our institute Dr. J. J. Magdum College of Engineering, Jaysingpur Dist :Kolhapur is leading educational institute offering four year degree courses in different engineering streams.

Department of IT is planning for industrial visit for our students as an academic part related to their syllabus. Students have subject Programming language, Networking & Operating System.

For same, we wish to visit t Cognition Inc., Kolhapur to see working environment & practical approach and to know new technologies used. We expect you will guide our students for betterment of their knowledge & career.

**Details:**

**College name:** Dr. J.J. Magdum College of Engineering, Jaysingpur, Dist: Kolhapur

**College website:** www.jjmcoe.org

**Number of students for visit:** 135

**Number of Faculties for visit:** 03


Prof.S.B.Holkar, Prof.A.G.Chendke, Prof.S.J.Chougule

**Expected Date of visit:** 11<sup>TH</sup> Nov, 2022


**Time:** 11:00 am at visit place

So, I request you to consider this & allow our students to visit your reputed organization.

Thanking you.

  
 Prof. Mrs. S.B. Holkar  
 Coordinator  
 Industrial visit, IT



  
 Prof. Mr. R. A. Sanadi  
 H.O.D.  
 IT Department



Visited

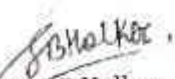


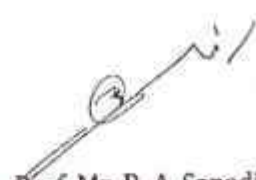
Dr. J.J. Magdum Trust's  
Dr. J.J. Magdum College of Engineering, Jaysingpur  
Department of Information Technology

Date: 9/11/2022

## NOTICE

All the SY, TY students of IT department are hereby informed that, the industrial visit is organized on 11<sup>th</sup> November, 2022 to Cognition Inc., Kolhapur. This is Software Company in Kolhapur & visit will be very helpful and beneficial to students and academics. All SY, TY students take benefit of it. So, It is mandatory to all students to attend the visit.

  
Prof. Mrs. S. B. Holkar  
Industrial Visit In-charge  
IT Dept.

  
Prof. Mr. R. A. Sanadi  
Head of Department,  
IT Dept.



Industrial Visit (Cognition Inc., Kolhapur (11/11/ 2022 SY,TY-IT)





Industrial visit : I Cognition Date: 11/11/2022

TY(IT) Student Roll No. List

| Roll No. | Name of student              | Signature |
|----------|------------------------------|-----------|
| 1        | BHUSNAR SANGRAMSINI KANTILAL |           |
| 2        | DANDAVATE BHUSHAN SADASHIV   |           |
| 3        | DESAI SHUBHAM BHIMGONDA      |           |
| 4        | GAIKWAD VAIBHAVI VINOD       |           |
| 5        | JAMBHALE AVANTIKA JANARDAN   |           |
| 6        | KALE AISHWARYA SUBHASH       |           |
| 7        | KAMBLE PURUSHOTTAM SANJAY    |           |
| 8        | KASAR SWACCHAND SAMBHAJI     |           |
| 9        | KHEDKAR SUDI KSHA GAJANAN    |           |
| 10       | KHOT SHWETA DHANANJAY        |           |
| 11       | KOLAPE YASHODA TUKARAM       |           |
| 12       | MANKAR MANALI RAJENDRA       |           |
| 13       | PATIL PRATIKSHA CHANDRAKANT  |           |
| 14       | PATIL SARVESH AVINASH        |           |
| 15       | PINJARI OMKAR DAGADU         |           |
| 16       | POWAR SUYOG SHIVAJI          |           |
| 17       | SALUNKHE SHITAL SANJAY       |           |
| 18       | SANT MAYURI DEVANAND         |           |
| 19       | SATAPE PRATIKSHA BALASO      |           |
| 20       | VHANKHANDE PRAJAKTA RAMESH   |           |
| 21       | SUTAR SWALIHA INYATULLA      |           |
| 22       | SHINDE VARAD SUDARSHAN       |           |
| 23       | YEWATE GANESH GOVIND         |           |
| 24       | ABRANGE SWAPNIL KIRAN        |           |
| 25       | AITWADE PRATHMESH PRADEEP    |           |
| 26       | BANDI ANA RAJU               |           |
| 27       | BANSODE ANJALI PRAKASH       |           |
| 28       | BIRNALE KIRTIKUMAR ASHOK     |           |
| 29       | CHAVAN AISHWARYA VILAS       |           |
| 30       | CHODHARI SIDDHANT SACHIN     |           |
| 31       | CHOUGULE ANAND DILIP         |           |
| 32       | DHAKANE JYOTI SUDHAKAR       |           |
| 33       | DHAYALE OM                   |           |
| 34       | DHOKALE AJAY DHANANJAY       |           |
| 35       | FASE SAMRUDDHI DEVIDAS       |           |
| 36       | GURAV PRATHMESH GANPATI      |           |
| 37       | HARGUDE SAKSHI SHARAD        |           |
| 38       | HULLE ABHIJIT PADAPPA        |           |
| 39       | INGALE ASHWINI RAMESH        |           |
| 40       | JADHAV SHIVAM RAMCHANDRA     |           |
| 41       | KADAM PREETI JALINDAR        |           |
| 42       | KAMBLE HARSHVARDHAN          |           |



|    |                              |  |
|----|------------------------------|--|
|    | JAYKUMAR                     |  |
| 43 | KAMBLE HRUSHIKESH DEEPAK     |  |
| 44 | KHANAJ NEHA ULHAS            |  |
| 45 | KORE SAKSHI MOHAN            |  |
| 46 | KOTHARI SHRAYSH NILESH       |  |
| 47 | KUMBHAR SANKET SANJAY        |  |
| 48 | LAD VAISHNAVI VISHWAS        |  |
| 49 | LOHAR ANURADHA MARUTI        |  |
| 50 | MAGDUM RUSHIKESH JAYKUMAR    |  |
| 51 | MAKANDAR AJEEM ANISKHAN      |  |
| 52 | MANE PRATIKSHA PRAVIN        |  |
| 53 | METHE SONAL VIJAY            |  |
| 54 | MHETRE VINAYAK SADASHIV      |  |
| 55 | MOHITE SAINATH VILAS         |  |
| 56 | MORE ABHIJEET VENKATRAO      |  |
| 57 | PAKHARE SWAPNIL ANIL         |  |
| 58 | PARIT PRADEEP MAHADEV        |  |
| 59 | PATIL ADITYA                 |  |
| 60 | PATIL POURNIMA PANDURANG     |  |
| 61 | PATIL SAKSHI RAJENDRA        |  |
| 62 | PATIL SAKSHI SANJAY          |  |
| 63 | PATIL SAYALI RAJARAM         |  |
| 64 | PATIL SNEHA GANPATI          |  |
| 65 | PATIL SUBHOD RAVINDRA        |  |
| 66 | PETHKAR RUSHABH MANISH       |  |
| 67 | PETHKAR SOURABH GIRISH       |  |
| 68 | PISE GOURI ARUN              |  |
| 69 | PUJARI SHUBHANGI RAJESH      |  |
| 70 | SAVAIKAR SAMRUDDHI SHRIHARI  |  |
| 71 | SHAIKH AFTAB FIROJKHAN       |  |
| 72 | TODKAR VAIBHAV DEVBA         |  |
| 73 | YADAV RUCHITA BHARAT         |  |
| 74 | YALGUDRE ANIRUDDHA PARSHURAM |  |
| 75 | AINAPURE RAJKUMAR            |  |
| 76 | PATIL RUSHABH                |  |
| 78 | KAMBLE YOGESH                |  |

Total no. of students = 56

*S.B.Holkar*

Industrial visit Co-ordinator

Prof.S.B.Holkar





Industrial visit : I Cognition Date: 11/11/2022

SY(IT) Student Roll No. List

| Roll No. | Name of student              | Signature |
|----------|------------------------------|-----------|
| 1        | AtigrePrathamUmaji           |           |
| 2        | ChavanAkshayDayanand         |           |
| 3        | Chougule Ajay Shivaji        |           |
| 4        | DalaviSwapnilAnanda          |           |
| 5        | Desai SaloniDilip            |           |
| 6        | DeshmaneShreyashShrikant     |           |
| 7        | DivateAtharv Ashok           |           |
| 8        | Fakir MuskanMakbul           |           |
| 9        | GaikwadKalyaniAmol           |           |
| 10       | Gavhane Aryan Vikas          |           |
| 11       | HulwanShantanuJaydeep        |           |
| 12       | IndalkarAntariShivaji        |           |
| 13       | IngoleRavirajNamdeo          |           |
| 14       | JadhavSanketShivaji          |           |
| 15       | JadhavShivam Sanjay          |           |
| 16       | KaleAVishkar Bharat          |           |
| 17       | KambleAdityaRaju             |           |
| 18       | KatkarAyushEknath            |           |
| 19       | Khade Pratik Tanaji          |           |
| 20       | KhalateSamidhaPramod         |           |
| 21       | KolekarSakshiAjit            |           |
| 22       | Kundekar Bharat Uttam        |           |
| 23       | LanjewarPalashNagsen         |           |
| 24       | LaykarAmrutaChandrakant      |           |
| 25       | MagdumAbhishek Shankar       |           |
| 26       | Mali SejalSandip             |           |
| 27       | Mane Kiran Vilas             |           |
| 28       | Mane Prerana Ashok           |           |
| 29       | Mane UtkarshDilip            |           |
| 30       | MohiteSuyog Sunil            |           |
| 31       | Mulla Ayesha SiddikaTajuddin |           |
| 32       | NikamMahadevPandurang        |           |
| 33       | NilkanthAnshulUmesh          |           |
| 34       | PathanShahinHakeemasab       |           |
| 35       | PatilAdityaRavsahab          |           |
| 36       | PatilArju Ashok              |           |
| 37       | PatilAvinashPandurang        |           |
| 38       | PatilJinendraRavindra        |           |
| 39       | Patil Mahesh Chandrakant     |           |
| 40       | PatilSammedShantinath        |           |
| 41       | PatilSamruddhDattatray       |           |
| 42       | PatilSanikaUttam             |           |



|    |                              |          |
|----|------------------------------|----------|
| 43 | Pawar Shraddha Tanaji        | Pawar    |
| 44 | Powar Pallavi Tanaji         | Powar    |
| 45 | Raut Prathamesh Prashant     | Raut     |
| 46 | Raut Sitaram Rajaram         | Raut     |
| 47 | Sanadi Sohe Salim            | Sanadi   |
| 48 | Sangale Aishwarya Prakash    | Sangale  |
| 49 | Shaikh Ayesha Siddiq Mehboob | Shaikh   |
| 50 | Shinde Omkar Madhukar        | Shinde   |
| 51 | Shinde Prathmesh Ravindra    | Shinde   |
| 52 | Shinde Vaishnavi Sanjay      | Shinde   |
| 53 | Thorat Rajvardhan Dhanajirao | Thorat   |
| 54 | Wankar Muskan Amir           | Wankar   |
| 55 | Yadav Swarup Mahadev         | Yadav    |
| 56 | Bhosale Rajvardhan Vijay     | Bhosale  |
| 57 | Bhosale Sahil Arvind         | Bhosale  |
| 58 | Chougule Ketan Babaso        | Chougule |
| 59 | Domane Sakshi Yuvraj         | Domane   |
| 60 | Dudhal Vijay Sunil           | Dudhal   |
| 61 | Gujar Shreyash Anand         | Gujar    |
| 62 | Jarag Dnyaneshwar Sampat     | Jarag    |
| 63 | Kaji Sahil Shabbir           | Kaji     |
| 64 | Mane Gouri Ganesh            | Mane     |
| 65 | Patil Samartha Ajit          | Patil    |
| 66 | Phalle Asmita Ramesh         | Phalle   |

Total no. of students = 55

AB-13  
1-53

*S.B. Holkar*  
Industrial visit Co-ordinator  
Prof. S.B. Holkar



**THE UNDERTAKEN BY THE STUDENT AND PARENT / GUARDAIN**

Date: 07/11/2022

To,

The Principal,

Dr. J. J. Magdum College of Engineering,

Jaysingpur.

**Subject: Regarding permission for Industry Visit to t Cognition Inc., Kolhapur.**

Respected Sir,

I Shri./Kum. Omkar Madhukar Shinde  
undersigned, a student of Second year, IT, Roll No 50 at this  
college. I am participating in the t Cognition Inc., Kolhapur arranged by Information  
Technology department. I am proceeding on this at my own risk and I understand that  
in case of any untoward incidence neither the staff accompanying us nor the institute  
will be responsible for the damages or losses therein. I undertake to abide by the rule  
and instructions given by the Head of Department and visit in charge.



(Signature of the student)

I, Shri/Smt. Madhukar Dattu Shinde

declare that my son/daughter/ward is proceeding on  
Industry tour to t Cognition Inc., Kolhapur on 11<sup>th</sup>  
November, 2022 and allow him/her to travel by the rail/private hired vehicle. I have  
no objection to travel hired vehicle. I am fully aware that my ward is proceeding in  
tour on his/her own risk, and neither the institute nor the staff members will be  
responsible for any damage or accident that may cause to him/her during the course of  
the tour. My ward will be have in well-disciplined manner, and abide by the rules and  
instructions given by the Head of Department and visit in-charge.





(Signature of Parent/Guardian)





Dr. J.J. Magdum Trust's  
Dr. J.J. Magdum College of Engineering, Jaysingpur  
Department of Information Technology

Date: 19/10/2022

To,  
The Principal,  
Dr. J. J. Magdum College of Engineering,  
Jaysingpur.

**Subject: - Regarding permission for Industrial Visit.**

Respected Sir/Mam,

We are from Information Technology Department of Dr. J. J. Magdum College of Engineering, Jaysingpur, are willing to organize Industrial Visit for TY students of our department to a software company in Sangli on 20<sup>th</sup> October 2022. We need 2 college bus for this visit. Our students will get knowledge about subject like Programming language, Networking & Operating system. This visit will be very helpful and beneficial to our students and academics.

**Industrial Visit details:**

**Company Name :** Domain Computer Education, Sangli.

**Location:** Domain Computer Education, 2<sup>nd</sup> floor Balaji Celebration,  
Above SVC bank, Ganpati mandir road, Vishrambag, Sangli

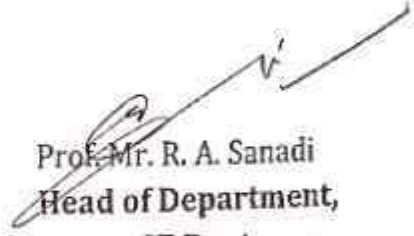
**Date:** 20<sup>th</sup> October, 2022

So, we request you to allow us to visit as per the above mentioned date and provide college bus.


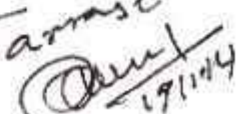
Thanking You.

  
Prof. Mrs. S. B. Holkar  
Industrial Visit In-charge  
IT Dept.



  
Prof. Mr. R. A. Sanadi  
Head of Department,  
IT Dept.



  
To  
Res  
Kindly ammasc.  
  
19/10/22



Dr. J.J. Magdum Trust's  
Dr. J.J. Magdum College of Engineering, Jaysingpur  
Department of Information Technology

Date: 10/10/2022

To,  
The Principal,  
Dr. J.J. Magdum College of Engineering,  
Jaysingpur.

Subject: Regarding Bus facility for Industrial Visit.

Respected Sir,

I Prof. S.B.Holkar looking after the industrial visit coordinator of IT department. We have planned to visit the company name Domain Computer Education, Sangli. So that students of third year can get knowledge about subject like Programming language, Networking & Operating system. For the same we need bus facility (2) on 20<sup>th</sup> October, 2022. The student count is 77.

Industrial Visit details:

Company Name: Domain Computer Education, Sangli.

Location: Domain Computer Education, 2<sup>nd</sup> floor Balaji Celebration,  
Above SVC bank, Ganpati mandir road, Vishrambag, Sangli

Date: 20<sup>th</sup> October, 2022

Day: Thursday

Total Students: 77


Faculty: 02

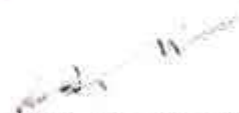
Prof. S.B.Holkar, Prof. P.A.Tamgave

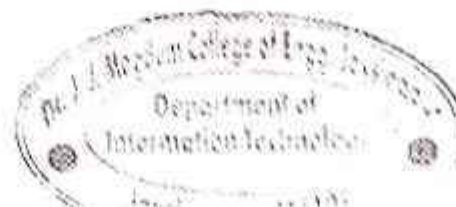
So, we request you to permit us for the same.

Thanking You.



  
Prof. Mrs. S.B. Holkar  
Industrial Visit In-charge  
IT Dept.

  
Prof. Mr. R. A. Sanadi  
Head of Department,  
IT Dept.





Dr. J.J. Magdum Trust's  
Dr. J.J. Magdum College of Engineering, Jaysingpur  
Department of Information Technology

Date: 20/10/2022

To,  
The HR Manager,  
Domain Computer Education, Sangli

Subject: Requesting permission to visit Domain Computer Education, Sangli. Dear  
Sir/Madam,

Our institute Dr. J. J. Magdum College of Engineering, Jaysingpur Dist:Kolhapur is leading educational institute offering four year degree courses in different engineering streams.

Department of IT is planning for industrial visit for our students as an academic part related to their syllabus. Students have subject Programming language, Networking & Operating System.

For same, we wish to visit Domain Computer Education, Sangli to see working environment & practical approach and to know new technologies used. We expect you will guide our students for betterment of their knowledge & career.

Details:

College name: Dr. J.J. Magdum College of Engineering, Jaysingpur, Dist: Kolhapur

College website: www.jjmcoe.org

Number of students for visit: 77

Number of Faculties for visit: 02

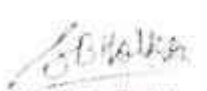
Prof. S.B.Holkar, Prof. P.A.Tamgave

Expected Date of visit: 20<sup>th</sup> October, 2022


Time: 2:00 pm at visit place

So, I request you to consider this & allow our students to visit your reputed organization.

Thanking you,

  
Prof. Mrs. S.B. Holkar  
Coordinator  
Industrial visit



  
Prof. Mr. R. A. Sanadi  
H.O.D.  
IT Department




Dr. J.J. Magdum Trust's  
Dr. J.J. Magdum College of Engineering, Jaysingpur  
Department of Information Technology

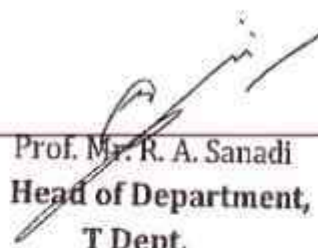
Date: 19/10/2022

## NOTICE

All the TY students of IT department are hereby informed that, the industrial visit is organized on 20<sup>th</sup> October, 2022 to Domain Computer Education, Sangli. This is Software Company in Sangli & visit will be very helpful and beneficial to students and academics. All TY students take benefit of it. So, It is mandatory to all students to attend the visit.

  
Prof. Mrs. S.B. Holkar  
Industrial Visit In-charge  
IT Dept.



  
Prof. Mr. R. A. Sanadi  
Head of Department,  
T Dept.







DR. J. J. MAGDUM COLLEGE OF ENGINEERING, JAYSINGPUR  
DEPARTMENT OF INFORMATION TECHNOLOGY

T. Y. B.Tech. 2022-23

Attendance for Industrial Visit

Venue- Domain Computer Education, Sangli Date-20/10/2022

| Roll No. | Name of Student              | Sign        |
|----------|------------------------------|-------------|
| 1        | BHUSNAR SANGRAMSINH KANTILAL | Bhusnar     |
| 2        | DANDAVATE BHUSHAN SADASHIV   | Bushan      |
| 3        | DESAI SHUBHAM BHIMGONDA      | Shubham     |
| 4        | GAIKWAD VAIBHAVI VINOD       | Vaibhavi    |
| 5        | JAMBHALE AVANTIKA JANARDAN   | Avantika    |
| 6        | KALE AISHWARYA SUBHASH       | Aishwarya   |
| 7        | KAMBLE PURUSHOTTAM SANJAY    | Purushottam |
| 8        | KASAR SWACCHAND SAMBHAJI     | Swachhand   |
| 9        | KHEDEKAR SUDI KSHA GAJANAN   | Sudiksha    |
| 10       | KHOT SHWETA DHANANJAY        | Shweta      |
| 11       | KOLAPE YASHODA TUKARAM       | Yashoda     |
| 12       | MANKAR MANALI RAJENDRA       | Manali      |
| 13       | PATIL PRATI KSHA CHANDRAKANT | Pratiksha   |
| 14       | PATIL SARVESH AVINASH        | Sarvesh     |
| 15       | PINJARI OMKAR DAGADU         | Omkar       |
| 16       | POWAR SUYOG SHIVAJI          | Suyog       |
| 17       | SALUNKHE SHITAL SANJAY       | Shital      |
| 18       | SANT MAYURI DEVANAND         | Mayuri      |
| 19       | SATAPE PRATI KSHA BALASO     | Pratiksha   |
| 20       | VHANKHANDE PRAJAKTA RAMESH   | Prajakta    |
| 21       | SUTAR SWALIHA INYATULLA      | Swaliha     |
| 22       | SHINDE VARAD SUDARSHAN       | Varad       |
| 23       | YEWATE GANESH GOVIND         | Ganesh      |
| 24       | ABRANGE SWAPNIL KIRAN        | Swapnil     |
| 25       | AITWADE PRATHMESH PRADEEP    | Prathmesh   |
| 26       | BANDI ANA RAJU               | Ana         |
| 27       | BANSODE ANJALI PRAKASH       | Anjali      |
| 28       | BIRNALE KIRTIKUMAR ASHOK     | Kirtikumar  |
| 29       | CHAVAN AISHWARYA VILAS       | Aishwarya   |
| 30       | CHOUDHARI SIDDHANT SACHIN    | Siddhant    |
| 31       | CHOUGULE ANAND DILIP         | Anand       |
| 32       | DHAKANE JYOTI SUDHAKAR       | Jyoti       |
| 33       | DHAVALE OM                   | Om          |
| 34       | DHOKALE AJAY DHANANJAY       | Ajay        |
| 35       | FASE SAMRUDDHI DEVIDAS       | Samruddhi   |
| 36       | GURAV PRATHMESH GANPATI      | Prathmesh   |
| 37       | HARGUDE SAKSHI SHARAD        | Sakshi      |



|    |                              |                    |
|----|------------------------------|--------------------|
| 38 | HULLE ABHIJIT PADAPPA        |                    |
| 39 | INGALE ASHWINI RAMESH        |                    |
| 40 | JADHAV SHIVAM RAMCHANDRA     |                    |
| 41 | KADAM PREETI JALINDAR        |                    |
| 42 | KAMBLE HARSHVARDHAN JAYKUMAR | <i>[Signature]</i> |
| 43 | KAMBLE HRUSHIKESH DEEPAK     |                    |
| 44 | KHANAJ NEHA ULHAS            |                    |
| 45 | KORE SAKSHI MOHAN            |                    |
| 46 | KOTHARI SHRAYSH NILESH       | <i>[Signature]</i> |
| 47 | KUMBHAR SANKET SANJAY        | <i>[Signature]</i> |
| 48 | LAD VAISHNAVI VISHWAS        | <i>[Signature]</i> |
| 49 | LOHAR ANURADHA MARUTI        | <i>[Signature]</i> |
| 50 | MAGDUM RUSHIKESH JAYKUMAR    | <i>[Signature]</i> |
| 51 | MAKANDAR AJEEM ANISKHAN      | <i>[Signature]</i> |
| 52 | MANE PRATIKSHA PRAVIN        | <i>[Signature]</i> |
| 53 | METHE SONAL VIJAY            | <i>[Signature]</i> |
| 54 | MHETRE VINAYAK SADASHIV      | <i>[Signature]</i> |
| 55 | MOHITE SAINATH VILAS         | <i>[Signature]</i> |
| 56 | MORE ABHIJEET VENKATRAO      | <i>[Signature]</i> |
| 57 | PAKHARE SWAPNIL ANIL         |                    |
| 58 | PARIT PRADEEP MAHADEV        |                    |
| 59 | PATIL ADITYA                 | <i>[Signature]</i> |
| 60 | PATIL POURNIMA PANDURANG     | <i>[Signature]</i> |
| 61 | PATIL SAKSHI RAJENDRA        | <i>[Signature]</i> |
| 62 | PATIL SAKSHI SANJAY          |                    |
| 63 | PATIL SAYALI RAJARAM         | SSP                |
| 64 | PATIL SNEHA GANPATI          | <i>[Signature]</i> |
| 65 | PATIL SUBHOD RAVINDRA        | <i>[Signature]</i> |
| 66 | PETHKAR RUSHABH MANISH       |                    |
| 67 | PETHKAR SOURABH GIRISH       | <i>[Signature]</i> |
| 68 | PISE GOURI ARUN              | SSP                |
| 69 | PUJARI SHUBHANGI RAJESH      |                    |
| 70 | SAVAIKAR SAMRUDDHI SHRIHARI  | <i>[Signature]</i> |
| 71 | SHAIKH AFTAB FIROJKHAN       | <i>[Signature]</i> |
| 72 | TODKAR VAIBHAV DEVBA         |                    |
| 73 | YADAV RUCHITA BHARAT         | <i>[Signature]</i> |
| 74 | YALGUDRE ANIRUDDHA PARSHURAM | <i>[Signature]</i> |
| 75 | AINAPURE RAJKUMAR            | <i>[Signature]</i> |
| 76 | PATIL RUSHABH                |                    |
| 77 | KAMBLE YOGESH                |                    |

*[Signature]*  
Prof. S.B. Holkar  
Industrial Visit Coordinator

*[Signature]*  
Prof. J.T. Patil  
Academic Coordinator

*[Signature]*  
Prof. K. A. Sanadi  
HOD



total no. of students = 57



DR. J. J. MAGDUM COLLEGE OF ENGINEERING, JAYSINGPUR  
DEPARTMENT OF INFORMATION TECHNOLOGY  
T.Y. B.Tech. 2022-23

Attendance for Industrial Visit

Venue- Domain Computer Education, Sangli Date-20/10/2022

| Roll No. | Name of Student              | Sign |
|----------|------------------------------|------|
| 1        | BHUSNAR SANGRAMSINI KANTILAL |      |
| 2        | DANDAVATE BHUSHAN SADASHIV   |      |
| 3        | DESAI SHUBHAM BHIMGONDA      |      |
| 4        | GAIKWAD VAIBHAYI VINOD       |      |
| 5        | JAMBHALE AVANTIKA JANARDAN   |      |
| 6        | KALE AISHWARYA SUBHASH       |      |
| 7        | KAMBLE PURUSHOTTAM SANJAY    |      |
| 8        | KASAR SWACCHAND SAMBHAJI     |      |
| 9        | KHEDEKAR SUDIKSHA GAJANAN    |      |
| 10       | KHOT SHWETA DHANANJAY        |      |
| 11       | KOLAPE YASHODA TUKARAM       |      |
| 12       | MANKAR MANALI RAJENDRA       |      |
| 13       | PATIL PRATIKSHA CHANDRAKANT  |      |
| 14       | PATIL SARVESH AVINASH        |      |
| 15       | PINJARI OMKAR DAGADU         |      |
| 16       | POWAR SUYOG SHIVAJI          |      |
| 17       | SALUNKHE SHITAL SANJAY       |      |
| 18       | SANT MAYURI DEVANAND         |      |
| 19       | SATAPE PRATIKSHA BALASO      |      |
| 20       | VHANKHANDE PRAJAKTA RAMESH   |      |
| 21       | SUTAR SWALIHA INYATULLA      |      |
| 22       | SHINDE VARAD SUDARSHAN       |      |
| 23       | YEWATE GANESH GOVIND         |      |
| 24       | ABRANGE SWAPNIL KIRAN        |      |
| 25       | AITWADE PRATHMESH PRADEEP    |      |
| 26       | BANDIANA RAJU                |      |
| 27       | BANSODE ANJALI PRAKASHI      |      |
| 28       | BIRNALE KIRTIKUMAR ASHOK     |      |
| 29       | CHAVAN AISHWARYA VILAS       |      |
| 30       | CHOUDHARI SIDDHANT SACHIN    |      |
| 31       | CHOUGULE ANAND DILIP         |      |
| 32       | DHAKANE JYOTI SUDHAKAR       |      |
| 33       | DHAVALE OM                   |      |
| 34       | DHOKALE AJAY DHANANJAY       |      |
| 35       | FASE SAMRUDDHI DEVIDAS       |      |
| 36       | GURAV PRATHMESH GANPATI      |      |
| 37       | HARGUDE SAKSHI SHARAD        |      |



|    |                              |                    |
|----|------------------------------|--------------------|
| 38 | HULLE ABHIJIT PADAPPA        |                    |
| 39 | INGALE ASHWINI RAMESH        |                    |
| 40 | JADHAV SHIVAM RAMCHANDRA     | <i>[Signature]</i> |
| 41 | KADAM PREETI JALINDAR        | <i>[Signature]</i> |
| 42 | KAMBLE HARSHVARDHAN JAYKUMAR |                    |
| 43 | KAMBLE HRUSHIKESH DEEPAK     |                    |
| 44 | KHANAJ NEHA ULHAS            | <i>[Signature]</i> |
| 45 | KORE SAKSHI MOHAN            | <i>[Signature]</i> |
| 46 | KOTHARI SHRAYSH NILESH       | <i>[Signature]</i> |
| 47 | KUMBHAR SANKET SANJAY        | <i>[Signature]</i> |
| 48 | LAD VAISHNAVI VISHWAS        | <i>[Signature]</i> |
| 49 | LOHAR ANURADHA MARUTI        | <i>[Signature]</i> |
| 50 | MAGDUM RUSHIKESH JAYKUMAR    | <i>[Signature]</i> |
| 51 | MAKANDAR AJEEM ANISKHAN      | <i>[Signature]</i> |
| 52 | MANE PRATIKSHA PRAVIN        | <i>[Signature]</i> |
| 53 | METHE SONAL VIJAY            | <i>[Signature]</i> |
| 54 | MHETRE VINAYAK SADASHIV      | <i>[Signature]</i> |
| 55 | MOHITE SAINATH VILAS         | <i>[Signature]</i> |
| 56 | MORE ABHIJEET VENKATRAO      |                    |
| 57 | PAKHARE SWAPNIL ANIL         | <i>[Signature]</i> |
| 58 | PARIT PRADEEP MAHADEV        |                    |
| 59 | PATIL ADITYA                 | <i>[Signature]</i> |
| 60 | PATIL POURNIMA PANDURANG     | <i>[Signature]</i> |
| 61 | PATIL SAKSHI RAJENDRA        | <i>[Signature]</i> |
| 62 | PATIL SAKSHI SANJAY          | <i>[Signature]</i> |
| 63 | PATIL SAYALI RAJARAM         | <i>[Signature]</i> |
| 64 | PATIL SNEHA GANPATI          |                    |
| 65 | PATIL SUBHOD RAVINDRA        | <i>[Signature]</i> |
| 66 | PETHKAR RUSHABH MANISH       | <i>[Signature]</i> |
| 67 | PETHKAR SOURABH GIRISH       | <i>[Signature]</i> |
| 68 | PISE GOURI ARUN              | <i>[Signature]</i> |
| 69 | PUJARI SHUBHANGI RAJESH      | <i>[Signature]</i> |
| 70 | SAVAIKAR SAMRUDDHI SHRIHARI  | <i>[Signature]</i> |
| 71 | SHAIKH AFTAB FIROJKHAN       |                    |
| 72 | TODKAR VAIBHAV DEVBA         | <i>[Signature]</i> |
| 73 | YADAV RUCHITA BHARAT         | <i>[Signature]</i> |
| 74 | YALGUDRE ANIRUDDHA PARSHURAM | <i>[Signature]</i> |
| 75 | AINAPURE RAJKUMAR            |                    |
| 76 | PATIL RUSHABH                |                    |
| 77 | KAMBLE YOGESH                |                    |

*[Signature]*  
Prof. S.B. Holkar  
Industrial Visit Coordinator

*[Signature]*  
Prof. J.T. Patil  
Academic Coordinator

*[Signature]*  
Prof. R. A. Sanadi  
HOD

Total no. of  
students = 57





**Industrial Visit Domain Computer System, Sangli (20/10/ 2022 TY-IT)**



**Sangli, Maharashtra, India**  
RHVR+R5V, Padmavathi Colony, Dattanagar,  
Sangli, Maharashtra 416415, India  
Lat 16.84723°  
Long 74.592298°  
20/10/22 03:58 PM



**Sangli, Maharashtra, India**  
RHVR+R5V, Padmavathi Colony, Dattanagar,  
Sangli, Maharashtra 416415, India  
Lat 16.847222°  
Long 74.59231°  
20/10/22 02:41 PM



THE UNDERTAKEN BY THE STUDENT AND PARENT /GUARDAIN

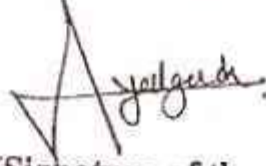
Date: 29/10/2022

To,  
The Principal,  
Dr. J. J. Magdum College of Engineering,  
Jaysingpur.

**Subject: Regarding permission for Industry Visit to Domain Computer Education, Sangli**

Respected Sir,

I Shri./Kum Aniruddha Parshuram Yalgudre  
undersigned, a student of TY year, IT, Roll No 74 at this  
college. I am participating in the **Domain Computer Education, Sangli.** arranged by  
Information Technology department. I am proceeding on this at my own risk and I  
understand that in case of any untoward incidence neither the staff accompanying us  
nor the institute will be responsible for the damages or losses therein. I undertake to  
abide by the rule and instructions given by the Head of Department and visit in  
charge.

  
(Signature of the student)

I, Shri/Smt. Parshuram K. Yalgudre  
declare that my son/daughter/ward is proceeding on 1 - Day  
Industry tour to **Domain Computer Education, Sangli.** On 20<sup>th</sup> October, 2022 and allow  
him/her to travel by the rail/private hired vehicle. I have no objection to travel hired  
vehicle. I am fully aware that my ward is proceeding in tour on his/her own risk, and  
neither the institute nor the staff members will be responsible for any damage or  
accident that may cause to him/her during the course of the tour. My ward will be  
have in well-disciplined manner, and abide by the rules and instructions given by the  
Head of Department and visit in-charge.



  
(Signature of Parent/Guardian)

Dr. J.J. Magdum Trust's  
Dr. J. J. Magdum College of Engineering, Jaysingpur -416101

## Department of Information Technology

### SUMMARY OF WINTER INTERNSHIP 2022-23

| Sr.No. | STUDENT NAME                  | COMPANY NAME                                | DURATION |
|--------|-------------------------------|---------------------------------------------|----------|
| 1      | GAWAS AASHWINI RAGHOB         | Tecspeak                                    | 1 month  |
| 2      | BABAR YOGESHRI SHIVAJI        | Oasis Infobyte                              | 1 month  |
| 3      | UPARATE SANKET SUDHAKAR       | Tecspeak IT Solutions                       | 5 weeks  |
| 4      | DESAI RAHUL SHIVAJI           | Tecspeak IT Solutions                       | 1 month  |
| 5      | HUKKERI SHRINATH RAJKUMAR     | Tecspeak IT Solutions                       | 1 month  |
| 6      | PATIL ROHIT LAXMAN            | Tecspeak IT Solutions                       | 1 month  |
| 7      | JARE PRASHANT LAXMAN          | Tecspeak IT Solutions                       | 1 month  |
| 8      | MORE ROHIT MARUTI             | Tecspeak IT Solutions                       | 1 month  |
| 9      | CHAVAN POOJA TULSIDAS         | OASIS INFOBYTE                              | 1 month  |
| 10     | DHOLE AKSHATA YUVRAJ          | OASIS INFOBYTE                              | 1 month  |
| 11     | MULLA HAIDARALI TAJUDDIN      | OASIS INFOBYTE                              | 1 month  |
| 12     | PUJARI RUSHIKESH PRAKASH      | OASIS INFOBYTE                              | 1 month  |
| 13     | MULLA AMAN RIYAJ              | OASIS INFOBYTE                              | 1 month  |
| 14     | MAGDUM ANIKET SADASHIV        | Suven Consultants & Technology<br>pvt. ltd. | 1 month  |
| 15     | MAGDUM AKANKSHA SADASHIV      | Suven Consultants & Technology<br>pvt. ltd. | 1 month  |
| 16     | KHARE SURAJ RAVINDRA          | Green Layer                                 | 1 month  |
| 17     | SHELAKE ASHWAGANDHA<br>MOHAN  | Excel Computers                             | 1 month  |
| 18     | MAHAMUNI SHREYAS SATISH       | Accenture                                   | 2 month  |
| 19     | RASAL ABHISHEK SANJAY         | Dextra Lab Technologies                     | 1 month  |
| 20     | JADHAV SHREYA SHRIKANT        | UP Skillz                                   | 2 month  |
| 21     | MANE PRJAKTA SHIVAJI          | Grow More                                   | 1 month  |
| 22     | KAMBLE SIYANG PRAFULLA        | Remark Skill Education                      | 2 month  |
| 23     | MORE ROHIT MARUTI             | Tecspeak IT Solutions                       | 1 month  |
| 24     | PRAJWAL MAHADEV GURAV         | Tecspeak IT Solutions                       | 1 MONTH  |
| 25     | PRAJAKTA CHANDRAKANT<br>PATIL | Tecspeak IT Solutions                       | 1 MONTH  |



|    |                             |                                          |          |
|----|-----------------------------|------------------------------------------|----------|
| 26 | PRAVIN PRALHAD PATIL        | Techspeak IT Solutions                   | 1 MONTH  |
| 27 | KUMBHAR OMKAR BAJIRAO       | I revolution IT Solutions                | 1 MONTH  |
| 28 | PATIL NIKITA BALKRISHNA     | Techspeak IT Solutions                   | 1 month  |
| 29 | NIMBALKAR AISHWARYA PRAKASH | Techspeak IT Solutions                   | 1 month  |
| 30 | GAVALI ANUSHKA ARUN         | Techspeak IT Solutions                   | 1 month  |
| 31 | KENJALE KEDAR DATTATRAY     | Forage                                   | 1 month  |
| 32 | SHAIKH JUNED JAHANGIR       | Gustovalley Technology                   | 1 month  |
| 33 | JAMADADE VRUSHALI TANAJI    | Suven Consultants & Technology pvt. ltd. | 1 month  |
| 34 | DHAVALE POOJA YASHWANTRAO   | Techspeak IT Solutions                   | 5 weeks  |
| 35 | MANGLEKAR RUTUJA PRAKASH    | Pradeep Infotech                         | 1 month  |
| 36 | KANADE AMRUT ANANDA         | Pradeep Infotech                         | 1 month  |
| 37 | PATIL DIVYARANI DATTATRAY   | SOFTRON                                  | 1 month  |
| 38 | RAWAL MANASI MAHESH         | SOFTRON                                  | 1 month  |
| 39 | SHIRDHONE CHIDANAND EKNATH  | Exposys Data Labs                        | 5 weeks  |
| 40 | KALE SHUBHAM DINESH         | Acmegrade                                | 1 month  |
| 41 | RAJPUT GOURI ARUNSING       | Matrix Infosolutions                     | 2 month  |
| 42 | PAWAR ASHLESHA MADHUKAR     | SOFTRON                                  | 1 month  |
| 43 | POTDAR DIPALI GAJANAN       | SOFTRON                                  | 1 month  |
| 44 | WAGH POONAM PRABHAKAR       | SOFTRON                                  | 3 month  |
| 45 | JADHAV SHRAVAN ASHOK        | Internshala                              | 1 month  |
| 46 | MANE SANDESH UTTAM          | Internshala                              | 1 month  |
| 47 | JADHAV SNEHAL DATTATRAY     | Techspeak IT Solutions                   | 5 weeks  |
| 48 | HIEMATH ADITYA NANDIKESHWAR | TCS Master Craft Dataplus                | 2 month  |
| 49 | JAMADADE SHREYA ANIL        | Matrix Infosolutions                     | 7 weeks  |
| 50 | MOHITE SAMRUDDHI SURESH     | Matrix Infosolutions                     | 7 weeks  |
| 51 | CHAVAN GAYATRI SHASHIKANT   | Acmegrade                                | 2 month  |
| 52 | KHADE NAYAN NAVJEEVAN       | Future skills prime                      | 1 month  |
| 53 | PATIL SAJESH SHEKHAR        | Acmegrade                                | 2 month  |
| 54 | PATIL SHRIDHAR SURESH       | Acmegrade                                | 2 month  |
| 55 | SHINTRE GOURAV GIRISH       | Gustovalley Technology                   | 1 month  |
| 56 | SUTAR SWAPNIL SATISH        | SOFTRON                                  | 2 months |
| 57 | BHOSALE OMKAR SHIVAJI       | Acmegrade                                | 2 month  |
| 58 | REVANNA PRATIK SACHIN       | Acmegrade                                | 2 month  |
| 59 | SHAHAPURE RAJAT RAJENDRA    | Pie infocom                              | 2 months |
| 60 | SARNOBAT PRAJWAL KRUSHNAT   | Acmegrade                                | 2 month  |



|    |                          |                         |         |
|----|--------------------------|-------------------------|---------|
| 61 | BANDGAR SAVITA APPASO    | Green Layer             | 1 month |
| 62 | PATHAN MUSKAN ISAK       | Green Layer             | 1 month |
| 63 | SURAJ NARDEKAR           | Techspeak IT Solutions  | 1 month |
| 64 | AKASH MITHARE            | Techspeak IT Solutions  | 1 month |
| 65 | ATISH KAMBLE             | The Sparks Foundation   | 2 month |
| 66 | Haidarali Tajuddin Mulla | Anvy Software Solutions | 4 month |
| 67 | SANDESH MANE             | Internshala             | 1 month |
| 68 | SHRAVAN JADHAV           | Internshala             | 1 month |
| 69 | SURAJ KHARE              | Green Layer             | 1 month |
|    |                          |                         |         |

*S. S. Khare*

**Internship Co-ordinator**





Date: 15<sup>th</sup> October, 2022

**INTERNSHIP CERTIFICATE**

This is to certify that *Ms. Divyarani Dattatray Patil* has been worked as a *Python ML Developer* in our organization from 15<sup>th</sup> September 2022 to 15<sup>th</sup> October 2022. During the time of her tenure we found her extremely resourceful in all the technologies that she is competent.

We found her to be a good team player besides being a hard worker. We wish her all success in her future endeavors.

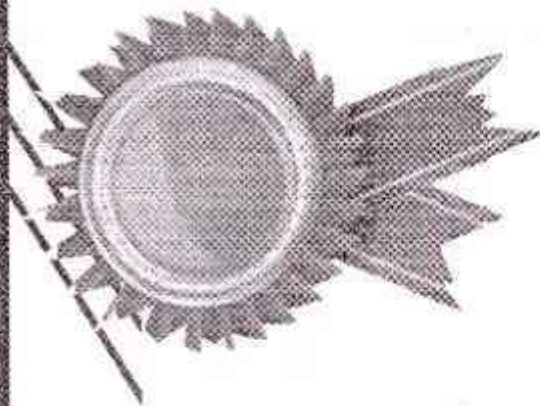
Yours truly,

**Softron, Kolhapur**  
Rohan S. Suryawanshi  
Industrial Expert

Softron Technology - Address Sideshri Plaza 4<sup>th</sup> Floor, Nr. Shelake Bridge, Front Of Ganesh Mandir, Rajaram Road Kolhapur-416002 (India) Phone No +91 7276702802, Website: [www.softron.in](http://www.softron.in), Email: [softron@softron.in](mailto:softron@softron.in)



**Tecspeak**  
**IT Solutions**  
(An ISO 9001:2015)



# Certificate

This is certify that,

**Suraj Nardekar**

Has successfully completed the training and examination on the topic of  
**Structured Query Language**

*His/Her performance in the course was Excellent*



Made for free with Certify'em



# INTERNSHIP CERTIFICATION

This is to certify that

**SHRIDHAR SURESH PATIL**

Mr./Ms. \_\_\_\_\_

has successfully completed her/his internship in \_\_\_\_\_ Web Development

from 10-Sept-2022 to 10-Nov-2022. During this period the

student was found to be dedicated, determined and hardworking.



Certificate number: AG2203279  
For certificate authentication  
Scan QR code

*Rohit*

Challa Rohit  
Academic Head





*Signature*

z e b o o a i

# CERTIFICATE OF INTERNSHIP

This Is To Certify That

*Shreya Shrikant Jadhav*

has successfully completed the internship on DATA SCIENCE for a period of  
2 months with UpSkillz

*Signature*

MOHAMMED RUMAN SHARIEF  
OPERATIONS HEAD

*Signature*

MUSKAN RASTOGI  
CEO & CO-FOUNDER



#UPSKCOIC22-531

27-08-2022 to 27-10-2022



Dextra Lab Technologies

Date: 15/09/2022

To

**Mr. Abhishek S Rasal**

## **Certificate Of Internship**

This is to certify that **Mr. Abhishek Sanjay Rasal**, Employee Code: DEX-58 was working with us as an intern **Web Developer** with effect from **15th Aug 2022** to **14 Sep 2022**. He has been relieved from his duties from **15 Sep 2022**, by the end of business closing hours.

He was punctual, hard-working, and inquisitive, as he successfully completed the tenure with good performance.

We wish him the best of luck in the future.

Your truly,

**For Dextralab Technologies**



---

**Kedar Deodhar (HR)**

---

FF 1, Sphurthi Complex, Govt. Colony, Vishrambag, Sangli.

---



## REVOLUTION IT SOLUTIONS

**Address:** Vimal Vihar Apartment, Third Floor T1, Rajarampuri 3th lane, Opposite to Castle Hotel, Kolhapur, 416008

**MSME Reg No:** MH115D0021119

**Contact:** +91 7744819595.

**Mail:** [info@revolutionit.in](mailto:info@revolutionit.in)

**Website:** [www.revolutionit.in](http://www.revolutionit.in)

**Date:** 27-08-2022

**TO,**

Omkar Bajirao kumbhar

BTech (information technology)

Dr.J J Magdum College of Engineering Jaysingpur

**Subject: Regarding Joining of Industrial Training**

Omkar Bajirao kumbhar

Our company is pleased to offer you industrial training opportunity in our technical department.

You will get Python Programming with Machine learning training between the period:  
27-08-2022 to 27-09-2022

You will report directly to technical manager.

Congratulations and welcome to our organisation

Thank you.



Yours Sincerely,



# Exposys Data Labs

## Certificate of Internship

---

### TO WHOM IT MAY CONCERN


This is to certify that **Mr. Chidanand Eknath Shirdhone** has completed internship programme on "**Software Testing**" from 15.09.2022 to 22.10.2022.

He took keen interest in the work assigned and successfully completed it. During the period of internship we found him to be punctual, hardworking and inquisitive.

We wish him luck and success in all his future endeavours.

---

**Y Vishnuvardhan**  
Chief Director

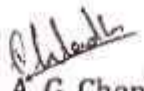
  
[hr@exposysdata.com](mailto:hr@exposysdata.com)  
[www.exposysdata.com](http://www.exposysdata.com)

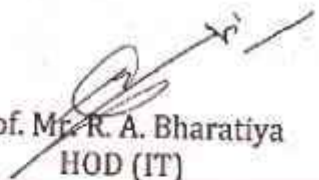


Dr. J.J. Magdum Trust's  
Dr. J.J. Magdum College of Engineering, Jaysingpur  
Department of Information Technology  
2022-23

Activity under Augmentation Cell-Technical

| Sr.No   | Activities Details              | Resource person                                              | Date/Duration | Target Audience |
|---------|---------------------------------|--------------------------------------------------------------|---------------|-----------------|
| 2022-23 |                                 |                                                              |               |                 |
| 1       | Android Development             | Mr.ImrankhnsS. Malidwale<br>Infoyashonand Technology, Bhose. | 12/12/2022    | BTech           |
| 2       | A beginner's guide to WordPress | Mrs.Gauri S. Khot,<br>PlatoMind Services Pvt. Ltd. Kolhapur  | 16/05/2023    | BTech           |

  
Prof. Mrs. A. G. Chendke  
Augmentation Cell Coordinator

  
Prof. Mr. R. A. Bharatiya  
HOD (IT)





Dr. J. J. Magdum Trust's  
 Dr. J. J. Magdum College of Engineering, Jaysingpur-416101.  
 Department of Information Technology  
 2022-23

Date: 07/12/2022

To,  
 The Principal/Campus Director,  
 Dr. J. J. Magdum College of Engineering,  
 Jaysingpur.

Subject: Regarding Permission for Technical Workshop.

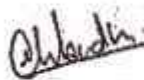
Respected Mam/Sir,


We the department of Information Technology is going to organize a Technical workshop on Monday, 12<sup>th</sup> December 2022, Time: 10:00 am namely "Android Development" under Augmentation cell for BTech students.


Budget for this Technical workshop Remuneration is 4000P<sup>/-</sup>. So please sanction this amount and give us permission to conduct this Technical workshop.

- Venue : CCF, JJMCOE.
- Lecture : Offline Mode
- Resource Person : Mr. ImrankhanSikandarMaldwale  
 Freelance work experience : 2+ years  
 Company work experience:4 years (android development)  
 Company Name :Infoyashonand Technology Pvt. Ltd. Bhose.

Thanking You,

  
 Prof. A. G. Chendke  
 Augmentation Cell coordinator

  
 Prof. J.T. Patil  
 Academic Coordinator

  
 Prof. R. A. Sanadi  
 HOD





Date: 07/12/2022

## NOTICE

All the students of BTech (IT) are hereby informed that a Technical workshop is organized on the topic "Android Development" under Augmentation Cell. The schedule for the same is mentioned below.

Date : 12/12/2022  
Time : 10:00am.  
Venue : CCF, JJMCOE.  
Resource Person : Mr. Imrankhan Sikandar Malidwale  
Freelance work experience: 2+ years  
Company work experience: 4 years (android development)  
Company Name : Infoyashonand Technology Pvt. Ltd. Bhose

So, all should note the same. The attendance of all is compulsory.

Prof. A. G. Chendke

Augmentation Cell coordinator

Prof. J.T. Patil

Academic Coordinator

Prof. R. A. Sanadi

HOD





# DR. J. J. MAGDUM TRUST'S

Date: 10/12/2022

To,

Mr. Imrankhan Sikandar Malidwale  
Infoyashonand Technology Pvt. Ltd.,  
Bhose.

Subject-Regarding invitation for the technical workshop "Android Development".

Respected Sir,

It is our honor to write to you & extend this warm invitation to be a Resource person workshop on "Android Development" under Augmentation Cell for BTech students. Participating students will benefit by your vivid experience, insights, support, encouragement and vision.

Day and Date : Monday, 12/12/2022

Time : 10:00am.

Venue : CCF, JJMCOE

Taking into account your interest and expertise in this field, we hope to welcome you soon at the venue of this technical workshop.

So please accept our invitation and do the needful.

Thanking you,

With warm regards.

*(Imran)*

Received.

*A.G. Chendke*  
Prof. A. G. Chendke

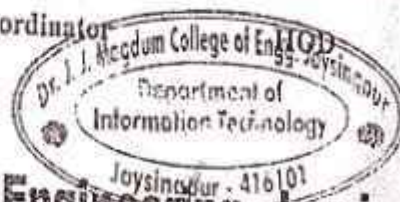
Augmentation Cell coordinator

*J.T. Patil*

Prof. J.T. Patil

Academic Coordinator

*R.A. Sanadi*  
Prof. R. A. Sanadi



## Dr. J. J. Magdum College of Engineering, Jaysingpur

Approved by A.I.C.T.E., New Delhi | Recognized by Govt. of Maharashtra (D.T.E.) | Affiliated to SHIVAJI UNIVERSITY, Kolhapur





# DR. J. J. MAGDUM TRUST'S

1P  
2

Date: 12/12/2022

To,

Mr. Imrankhan Sikandar Malidwale  
Infoyashonand Technology Pvt. Ltd.,  
Bhose.

Subject: -Thanking Letter.

Respected Sir,

As per our request you have accepted our invitation as a Resource person for Technical Workshop on "Android Development" under Augmentation Cell on Monday 12/12/2022, Time: 10:00 am. You delivered the session very well.

On behalf of Augmentation Cell & Department Information Technology, we are thankful that you have given your precious time & effective knowledge for BTech (IT) students through this session.

Thanking you,

*Received.*

*Chendke*  
Prof. A. G. Chendke

Augmentation Cell coordinator

*Patil*  
Prof. J.T. Patil

Academic Coordinator

*Sanadi*  
Prof. R. A. Sanadi

HOD



**Dr. J. J. Magdum College of Engineering, Jaysingpur**

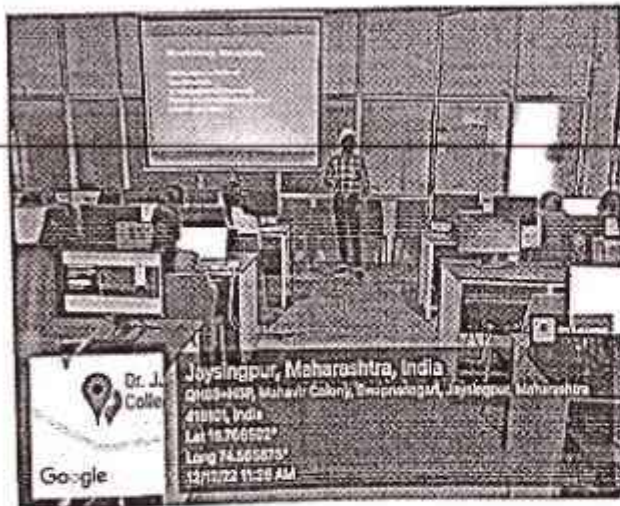
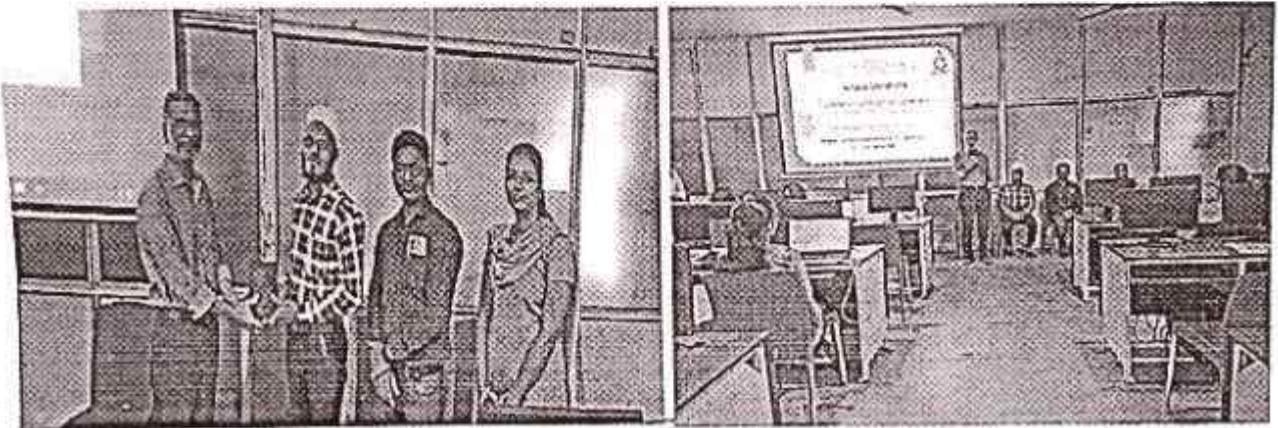
Approved by AICTE, New Delhi | Recognized by Govt. of Maharashtra (D.T.E.) | Affiliated to SVKM'S UNIVERSITY, Kolhapur



Dr. J. J. Magdum Trust's  
Dr. J. J. Magdum College of Engineering, Jaysingpur-416101.  
Department of Information Technology  
2022-23

Date: 12/12/2022

One Day Workshop on ANDROID DEVELOPMENT Under Augmentation Cell





**Dr. J. J. Magdum College of Engineering, Jaysingpur.**

Department of Information Technology  
Class-B.Tech.IT

Date: 12/12/2022

**One Day Workshop On "Android Development" under Augmentation Cell**

| ROLL.No. | Name Of Student                   | Morning Section | Evening Section |
|----------|-----------------------------------|-----------------|-----------------|
| 1        | GAWAS AASHWINI RAGHOB             |                 |                 |
| 2        | KAMBLE SIYANG PRAFULLA            | <i>Kambl</i>    |                 |
| 3        | MITHARE AKASH SURESH              |                 |                 |
| 4        | NARDEKAR SURAJ JAYKUMAR           |                 |                 |
| 5        | MULLA AMAN RIYAJ                  | <i>Am</i>       | <i>Am</i>       |
| 6        | PUJARI RUSHIKESHI PRAKASH         | <i>Riji</i>     | <i>Riji</i>     |
| 7        | SHAIKH JUNED JAHANGIR             | <i>Shai</i>     | <i>Shai</i>     |
| 8        | SHIRDHANE CHIDANAND EKNATH        | <i>Shir</i>     | <i>Shir</i>     |
| 9        | HIREMATH ADITYA NANDIKESHWAR      |                 |                 |
| 10       | JARE PRASHANT LAXMAN              | <i>Jare</i>     | <i>Jare</i>     |
| 11       | KUMBHAR OMKAR BAJIRAO             | <i>Kum</i>      | <i>Kum</i>      |
| 12       | MOMIN MOHAMMAD RAASHID ALLAHBAKSH | <i>Mom</i>      |                 |
| 13       | PATIL ROHIT LAXMAN                |                 |                 |
| 14       | KAMBLE ATISH VIJAY                |                 |                 |
| 15       | KHARE SURAJ RAVINDRA              | <i>Khare</i>    |                 |
| 16       | MAHAMUNI SHREYAS SATISH           |                 |                 |
| 17       | MULLA HAIDARALI TAJUDDIN          |                 |                 |
| 18       | PAWAR ASHLESHA MADHUKAR           | <i>Paw</i>      | <i>Paw</i>      |
| 19       | POTDAR DIPALI GAJANAN             | <i>Pot</i>      | <i>Pot</i>      |
| 20       | RAJPUT GOURI ARUNSING             | <i>Raj</i>      | <i>Raj</i>      |
| 21       | WAGH POONAM PRABHAKAR             | <i>Wag</i>      | <i>Wag</i>      |
| 22       | BANDGAR SAVITA APPASO             |                 |                 |
| 23       | PATHAN MUSKAN ISAK                |                 |                 |
| 24       | PATIL DIVYARANI DATTATRAY         | <i>Patil</i>    | <i>Patil</i>    |
| 25       | RAWAL MANASI MAHESH               | <i>Rawal</i>    | <i>Rawal</i>    |
| 26       | GAVALI ANUSHKA ARUN               | <i>Gavali</i>   | <i>Gavali</i>   |
| 27       | KALE SHUBHAM DINESH               | <i>Kale</i>     | <i>Kale</i>     |
| 28       | MHAMULKAR SANIYA PANDURANG        | <i>Mham</i>     | <i>Mham</i>     |
| 29       | MORE ROHIT MARUTI                 |                 |                 |
| 30       | BABAR YOGESHRI SHIVAJI            |                 |                 |
| 31       | KENJALE KEDAR DATTATRAY           | <i>Kenjale</i>  | <i>Kenjale</i>  |
| 32       | KHADE NAYAN NAVJEEVAN             | <i>Khade</i>    | <i>Khade</i>    |
| 33       | PATIL NIKITA BALKRISHNA           | <i>Patil</i>    | <i>Patil</i>    |
| 34       | CHAVAN POOJA TULSIDAS             | <i>Chavan</i>   | <i>Chavan</i>   |
| 35       | DHOLE AKSHATA YUVRAJ              | <i>Dhole</i>    | <i>Dhole</i>    |



|    |                                      |                           |                           |
|----|--------------------------------------|---------------------------|---------------------------|
| 36 | JAMADADE VRUSHALI TANAJI             | <del>Vamodal.</del>       | <del>Vamodal.</del>       |
| 37 | MANE PRJAKTA SHIVAJI                 |                           |                           |
| 38 | CHAVAN GAYATRI SHASHIKANT            | <del>GC Chavan</del>      | <del>GC Chavan</del>      |
| 39 | JADHAV SHREYA SHRIKANT               | <del>SST</del>            | <del>SST</del>            |
| 40 | MAGDUM AKANKSHA SADASHIV             | <del>ASH</del>            | <del>ASH</del>            |
| 41 | MAGDUM ANIKET SADASHIV               | <del>Prayk</del>          | <del>Prayk</del>          |
| 42 | JADHAV SHRAVAN ASHOK                 |                           |                           |
| 43 | KANADE AMRUT ANANDA                  | <del>AK</del>             | <del>AK</del>             |
| 44 | MANE SANDESH UTTAM                   |                           |                           |
| 45 | SHELAKE ASHWAGANDHA MOHAN            | <del>Shelake</del>        | <del>Shelake</del>        |
| 46 | GURAV PRAJWAL MAHADEV                |                           |                           |
| 47 | SANKPAL GOURANK PRASHANT             |                           |                           |
| 48 | PATIL PRAJAKTA CHANDRAKANT           |                           |                           |
| 49 | PATIL PRAVIN PRALHAD                 |                           |                           |
| 50 | HUKKERI SHRINATH RAJKUMAR            | <del>SPD</del>            | <del>SPD</del>            |
| 51 | RASAL ABHISHEK SANJAY <del>Ref</del> | <del>Rasal</del>          | <del>Rasal</del>          |
| 52 | DESAI RAHUL SHIVAJI                  | <del>Resai</del>          | <del>Resai</del>          |
| 53 | UPARATE SANKET SUDHAKAR              | <del>Up</del>             | <del>Up</del>             |
| 54 | JAMADADE SHREYA ANIL                 | <del>Shamodak</del>       | <del>Shamodak</del>       |
| 55 | MANGLEKAR RUTUJA PRAKASH             | <del>Rasa</del>           | <del>Rasa</del>           |
| 56 | MOHITE SAMRUDDHI SURESH              | <del>SMohite</del>        | <del>SMohite</del>        |
| 57 | NIMBALKAR AISHWARYA PRAKASH          | <del>N...</del>           | <del>N...</del>           |
| 58 | PATIL SUSHANT VASABTRAO              |                           |                           |
| 59 | DHA VALE POOJA YASHWANTRAO           |                           |                           |
| 60 | JADHAV SNEHAL DATTATRAY              | <del>Jadav</del>          | <del>Jadav</del>          |
| 61 | SAVANT SUDHIR RAGHUNATH              |                           |                           |
| 62 | PATIL SAIESH SHEKHAR                 | <del>Caresh</del>         | <del>Caresh</del>         |
| 63 | PATIL SHRIDHAR SURESH                | <del>Shridhar Patil</del> | <del>Shridhar Patil</del> |
| 64 | SHINTRE GOURAV GIRISH                | <del>Gourav Shintre</del> | <del>Gourav Shintre</del> |
| 65 | SUTAR SWAPNIL SATISH                 | <del>SS Sutar</del>       | <del>SS Sutar</del>       |
| 66 | BHOSALE OMKAR SHIVAJI                | <del>Omkar</del>          | <del>Omkar</del>          |
| 67 | REVANNA PRATIK SACHIN                | <del>Pracma</del>         | <del>Pracma</del>         |
| 68 | SARNOBAT PRAJWAL KRUSHNAT            | <del>Prayvat</del>        | <del>Prayvat</del>        |
| 69 | SHAHAPURE RAJAT RAJENDRA             | <del>Rajpatel</del>       | <del>Rajpatel</del>       |

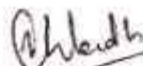




Dr. J.J. Magdum Trust's  
Dr. J.J. Magdum College of Engineering, Jaysingpur  
Department of Information Technology  
2022-23

**Activity under Augmentation Cell- Non Technical**

| Sr.No | Activities Details              | Resource person                                                                           | Date/Duratio<br>n | Target<br>Audience |
|-------|---------------------------------|-------------------------------------------------------------------------------------------|-------------------|--------------------|
| 1     | Full tension to cool tension    | Mr.Kapil M. Lalit<br>Mind Matters<br>Psychological Services,<br>Sangli.                   | 29/09/2022        | SY, TY,<br>BTech   |
| 2     | Career and Skill<br>Development | Mr. Prasad Vatare<br>PRV computer classes ,<br>Job and skill<br>development cell, Sangli. | 11/04/2023        | SY, TY,<br>BTech   |

  
Prof. A.G. Chendke  
Augmentation Cell Coordinator

  
Prof. R. A. Bharatiya  
HOD(IT)





Dr. J. J. Magdum Trust's  
Dr. J. J. Magdum College of Engineering, Jaysingpur-416101.  
Department of Information Technology  
2022-23

Date: 27/09/2022

To,  
The Principal/ Campus Director  
Dr. J. J. Magdum College of Engg.,  
Jaysingpur.

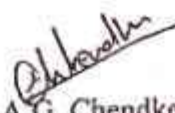
**Subject: Regarding Permission for Non-Technical Workshop.**

Respected Madam/ Sir,


The department Information Technology is going to organize a non-technical workshop on Thursday, 29 September 2022, Time: 10:00 namely "Full Tension to Cool Tension" under Augmentation cell for SY, TY and B.Tech students. Resource person is Mr. Kapil Madhav Lalit, Mind Matters Psychological Services, Sangli.

So we request you to grant us the permission for organizing the non- technical workshop.

Thanking You.

  
Prof. A.G. Chendke

Augmentation Coordinator

  
Prof. J. T. Patil

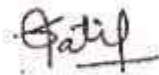
Academic Coordinator

  
Prof. R. A. Sanadi

HOD (IT)



Permitted,







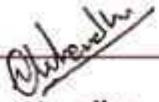
Date: 27/09/2022


## NOTICE

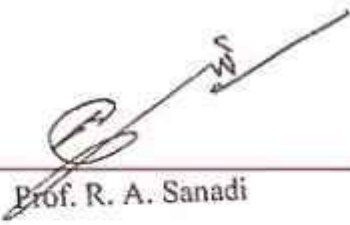
All the students of SY, TY and B.Tech are hereby informed that a workshop is organized on the topic "Full Tension to Cool Tension" under Augmentation cell. The schedule for the same is mentioned below.

Date, Day : 29/09/2022, Thursday  
Time : 10:00 am  
Venue : Mechanical Seminar Hall  
Resource Person : Mr. Kapil Madhav Lalit  
Mind Matters Psychological Services,  
Sangli.  
Mob. No.: +91 98199 66489

So, all should note the same. The attendance of all is compulsory.

  
Prof. A.G. Chendke  
Augmentation Coordinator

  
Prof. J. T. Patil  
Academic Coordinator

  
Prof. R. A. Sanadi  
HOD IT Dept.





Dr. J. J. Magdum Trust's  
Dr. J. J. Magdum College of Engineering, Jaysingpur-416101.  
Department of Information Technology  
2022-23

Date : 26/09/2022

To,

Mr. Kapil M. Lalit,

Mind Matters Psychological Services,

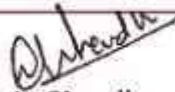
Sangli.

**Subject: -Regarding the invitation as a Resource person.**

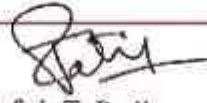
Respected Sir,

We, Department of Information Technology from Dr. J. J Magdum College of Engineering, Jaysingpur is going to organize a non-technical workshop on "Full Tension to Cool Tension" under Augmentation Cell on Thursday 29/09/2022, Time: 10:00 am. for the students of SY, TY, BTech IT. We are pleased to invite you as the resource person. Please accept the request.

Thanking you,

  
Prof. A.G. Chendke

Augmentation Coordinator

  
Prof. J. T. Patil

Academic Coordinator

  
Prof. R. A. Sanadi

HOD (IT)







Dr. J. J. Magdum Trust's  
Dr. J. J. Magdum College of Engineering, Jaysingpur-416101.  
Department of Information Technology  
2022-23

To,

Date: 29/09/2022

Mr. Kapil M. Lalit,

Mind Matters Psychological Services,

Sangli.

**Subject: -Thanking Letter.**

Respected Sir,

As per our request you have accepted our invitation as a Resource person for Non-Technical Workshop on "Full Tension to Cool Tension" under Augmentation Cell on Thursday 29/09/2022, Time: 10:00 am. You delivered the session very well.

On behalf of Augmentation Cell & Department of Information Technology, we are thankful that you have given your precious time & effective knowledge for SY, TY and B.Tech (IT) students through this session.

Thanking you,

Prof. A.G. Chendke

Augmentation Coordinator

Prof. J. T. Patil

Academic Coordinator

Prof. R. A. Sanadi

HOD (IT)

Received  
29/09/2022





Date: 29/09/2022

Workshop on "Full Tension to Cool Tension" under Augmentation Cell

SY(IT) Student Roll No. List

| Roll No. | Name of student               | Sign |
|----------|-------------------------------|------|
| 1        | Atigre Pratham Umaji          |      |
| 2        | Chavan Akshay Dayanand        |      |
| 3        | Chougule Ajay Shivaji         |      |
| 4        | Dalavi Swapnil Ananda         |      |
| 5        | Desai Saloni Dilip            |      |
| 6        | Deshmane Shreyash Shrikant    |      |
| 7        | Divate Atharv Ashok           |      |
| 8        | Fakir Muskan Makbul           |      |
| 9        | Gaikwad Kalyani Amol          |      |
| 10       | Gavhane Aryan Vikas           |      |
| 11       | Hulwan Shantanu Jaydeep       |      |
| 12       | Indalkar Antari Shivaji       |      |
| 13       | Ingole Raviraj Namdeo         |      |
| 14       | Jadhav Sanket Shivaji         |      |
| 15       | Jadhav Shivam Sanjay          |      |
| 16       | Kalel Avishkar Bharat         |      |
| 17       | Kamble Aditya Raju            |      |
| 18       | Katkar Ayush Eknath           |      |
| 19       | Khade Pratik Tanaji           |      |
| 20       | Khalate Samidha Pramod        |      |
| 21       | Kolekar Sakshi Ajit           |      |
| 22       | Kundekar Bharat Uttam         |      |
| 23       | Lanjewar Palash Nagsen        |      |
| 24       | Laykar Amruta Chandrakant     |      |
| 25       | Magdum Abhishek Shankar       |      |
| 26       | Mali Sejal Sandip             |      |
| 27       | Mane Kiran Vilas              |      |
| 28       | Mane Prerana Ashok            |      |
| 29       | Mane Utkarsh Dilip            |      |
| 30       | Mohite Suyog Sunil            |      |
| 31       | Mulla Ayesha Siddika Tajuddin |      |
| 32       | Nikam Mahadev Pandurang       |      |
| 33       | Nilkanth Anshul Umesh         |      |
| 34       | Pathan Shahin Hakeemasab      |      |
| 35       | Patil Aditya Ravsaheb         |      |
| 36       | Patil Arju Ashok              |      |
| 37       | Patil Avinash Pandurang       |      |
| 38       | Patil Jinendra Ravindra       |      |
| 39       | Patil Mahesh Chandrakant      |      |
| 40       | Patil Sammed Shantinath       |      |



|    |                              |                             |
|----|------------------------------|-----------------------------|
| 41 | Patil Samruddh Dattatray     | <i>Samruddh Patil</i>       |
| 42 | Patil Sanika Uttam           | <i>Sanika Patil</i>         |
| 43 | Pawar Shraddha Tanaji        |                             |
| 44 | Powar Pallavi Tanaji         | <i>Pallavi Powar</i>        |
| 45 | Raut Prathamesh Prashant     | <i>Prathamesh Raut</i>      |
| 46 | Raut Sitaram Rajaram         |                             |
| 47 | Sanadi Sohel Salim           | <i>Sohel Sanadi</i>         |
| 48 | Sangale Aishwarya Prakash    |                             |
| 49 | Shaikh Ayeshasiddiqa Mehboob | <i>Ayesh Siddiqa Shaikh</i> |
| 50 | Shinde Omkar Madhukar        | <i>Omkar Shinde</i>         |
| 51 | Shinde Prathmesh Ravindra    | <i>Prathmesh Shinde</i>     |
| 52 | Shinde Vaishnavi Sanjay      | <i>Vaishnavi Shinde</i>     |
| 53 | Thorat Rajvardhan Dhanajirao | <i>Rajvardhan Thorat</i>    |
| 54 | Wankar Muskan Amir           | <i>Muskan Wankar</i>        |
| 55 | Yadav Swarup Mahadev         | <i>Swarup Yadav</i>         |
| 56 | Prof. P. B. Bharat Awale     | P. B. Awale.                |

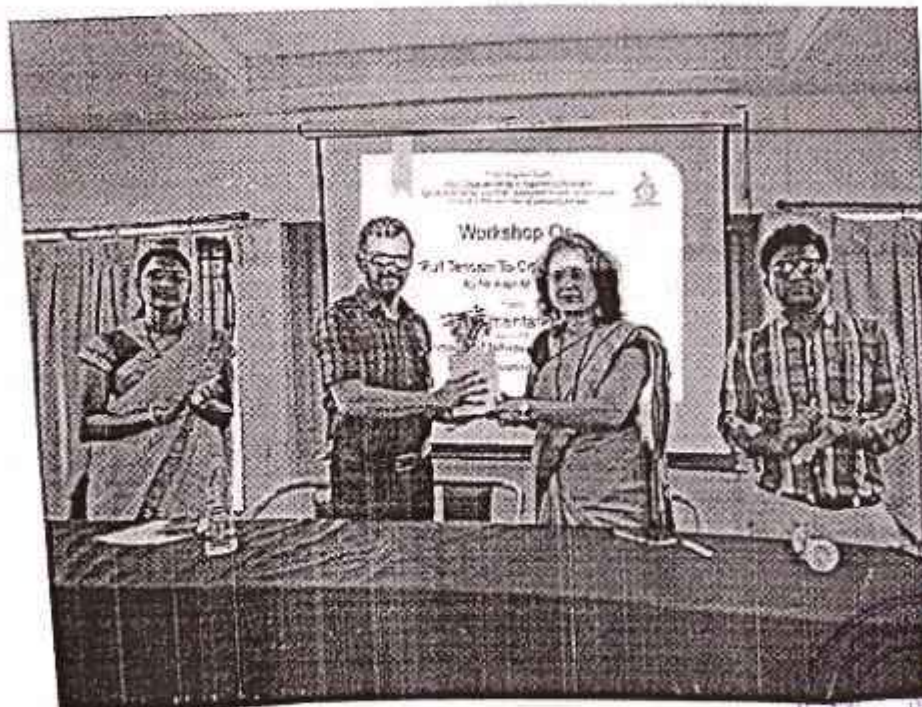
Prof. Mrs. A.G. Chendke  
Class Coordinator (SY IT)





Date: 29/09

Non Technical workshop on "Full tension to cool tension" under  
Augmentation Cell



2.3.4 (Project)

C - Copyright  
D - Design - Patent.

Dr. J. J. Magdum College of Engineering, Jaysingpur.  
Department of Information Technology Engineering  
Class-B.Tech.IT  
Btech Project Detail 2022-23

| Roll.No. | Name Of the Student          | Title of the project                                  | Type of Project                       |                    |
|----------|------------------------------|-------------------------------------------------------|---------------------------------------|--------------------|
|          |                              |                                                       | Project group                         | Faculty Name       |
| 1        | GAWAS AASHWINI RAGHOB        | Hospitality Service Management System                 | G1 - Management+Sponsor ✓             | Mrs.S. J. Chougale |
| 2        | KAMBLE SIYANG PRAFULLA       |                                                       |                                       |                    |
| 3        | MITHARE AKASH SURESH         |                                                       |                                       |                    |
| 4        | NARDEKAR SURAJ JAYKUMAR      |                                                       |                                       |                    |
| 5        | JAMADADE SHREYA ANIL         | Gesture recognition based on virtual mouse & keyboard | G2- Social level                      | Mrs.J.T.Patil      |
| 6        | MANGLEKAR RUTUJA PRAKASH     |                                                       |                                       |                    |
| 7        | MOHITE SAMRUDDHI SURESH      |                                                       |                                       |                    |
| 8        | NIMBALKAR AISHWARYA PRAKASH  |                                                       |                                       |                    |
| 9        | HIREMATH ADITYA NANDIKESHWAR | Fertilizer Optimizer                                  | G3- Innovative+<br>or Techno societal | Mrs. S.S.Solapure  |
| 10       | JARE PRASHANT LAXMAN         |                                                       |                                       |                    |
| 11       | KUMBHAR OMKAR BAJRAO         |                                                       |                                       |                    |
| 12       | MOMIN MOHAMMAD RAASHID       |                                                       |                                       |                    |
| 13       | PATIL ROHIT LAXMAN           |                                                       |                                       |                    |
| 14       | KAMBLE ATISH VIJAY           | Brain Tumor Detection Using Mask R-CNN                | G4-Medicare And Solutions             | Mrs.S. J. Chougale |
| 15       | KHARE SURAJ RAVINDRA         |                                                       |                                       |                    |
| 16       | MAHAMUNI SHREYAS SATISH      |                                                       |                                       |                    |
| 17       | MULLA HAIDARALI TAJUDDIN     |                                                       |                                       |                    |
| 18       | PAWAR ASHLESHA MADHUKAR      | Software for Vaishnavi Jewellers                      | G5- Industry real time<br>Sponsored ✓ | Mrs. A.G.Chendke   |
| 19       | POTDAR DIPALI GAJANAN        |                                                       |                                       |                    |
| 20       | RAJPUT GOURI ARUNING         |                                                       |                                       |                    |
| 21       | WAGH POONAM PRABHAKAR        |                                                       |                                       |                    |
| 22       | BANDGAR SAVITA APPASO        | Stock Management System                               | G6-Industry Real Time<br>Sponsored    | Mrs.J.T.Patil      |
| 23       | PATHAN MUSKAN ISAK           |                                                       |                                       |                    |
| 24       | PATIL DIVYARANI DATTATRAY    |                                                       |                                       |                    |
| 25       | RAWAL MANASI MAHESH          |                                                       |                                       |                    |
| 26       | GAVALI ANUSHKA ARUN          | Waste Food Management System Using Flutter            | G7- Innovative+Techno Societal        | Mr. R.A. Sanadi    |
| 27       | KALE SHUBHAM DINESH          |                                                       |                                       |                    |



BKC

subject

|                                                                                                         |                                                                             |                                      |                     |
|---------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|--------------------------------------|---------------------|
| SHAMULKAR SANIYA PANDURANG<br>MORE ROHIT MARUTI                                                         | Medical Management System                                                   | G8-Management + Real Time<br>Sponsor | Mr. R. A. Samndi    |
| BABAR YOGESHRI SHIVAJI<br>KUNJALE KEDAR DATTATRAY<br>SHADE NAYAN NAVJEEVAN<br>ATIL NIKITA BALKRISHNA    | Dairy Automation                                                            | G9-Techno Societal<br>Sponsor        | Mrs. P. R. Patil    |
| HAVAN POOJA TULSIDAS<br>HOLE AKSHATA YUVRAJ<br>AMADADE VRUSHALI TANAJI<br>MANE PRJAKTA SHIVAJI          | Pet Adoption App                                                            | G10-Techno Societal                  | Mrs. P. A. Tambgave |
| HAVAN GAYATRI SHASHIKANT<br>ADHAV SHREYA SHRIKANT<br>MAGDUM AKANKSHA SADASHIV<br>MAGDUM ANIKET SADASHIV | Driver drowsiness detection system                                          | G11-Techno societal                  | Mrs. Pallavi Desai  |
| ADHAV SHRAVAN ASHOK<br>ANADE AMRUT ANANDA<br>MANE SANDESH UTTAM<br>HELAKE ASHWAGANDHA MOHAN             | E-Commerce Website with PWA Technology for Interiors and Electricals        | G12-Industry Real Time<br>Sponsor    | Mrs. S. B. Holkar   |
| LURAV PRAJWAL MAHADEV<br>ANKPAL GOURANK PRASHANT<br>ATIL PRAJAKTA CHANDRAKANT<br>ATIL PRAVIN PRALHAD    | Audio Sentimate Analysis                                                    | G13-Social level                     | Mrs. P. R. Patil    |
| UKKERI SHRINATH RAJKUMAR<br>ASAL ABHISHEKH SANJAY<br>ESAI RAHUL SHIVAJI<br>PARATE SANKET SUDHAKAR       | Design an IoT based noise detection and alert system for silent zone areas. | G14- Social Level                    | Mrs. S. S. Solapure |
| ULLA AMAN RIYAJ<br>UJARI RUSHIKESH PRAKASH<br>HAKH JUNED JAHANGIR<br>HIRDHONE CHIDANAND EKNATH          | Gas Leakege Detector using Arduino UNO                                      | G15-Inter disciplinary               | Mrs. P. A. Tambgave |



|    |                            |                                                             |                        |                    |
|----|----------------------------|-------------------------------------------------------------|------------------------|--------------------|
| 59 | DIJAVALE POOJA YASHWANTRAO |                                                             |                        |                    |
| 60 | JADHAV SNEHAL DATTATRAY    |                                                             |                        |                    |
| 61 | SAVANT SUDHIR RAGHUNATH    |                                                             |                        |                    |
| 62 | PATIL SAIESH SHEKHAR       | Advance dynamic E-commerce website for power jet appliances | G16-Industry real Time | Mrs. S.B. Holkar   |
| 63 | PATIL SHRIDHAR SURESH      |                                                             | Sponsored              |                    |
| 64 | SHINTRE GOURAV GIRISH      |                                                             |                        |                    |
| 65 | SUTAR SWAPNIL SATISH       |                                                             |                        |                    |
| 66 | BHOSALE OMKAR SHIVAJI      | Fake news prediction                                        | D                      | Mrs. Pallavi Desai |
| 67 | REVANNA PRATIK SACHIN      |                                                             |                        |                    |
| 68 | SARNOBAT PRAJWAL KRUSHNAT  |                                                             |                        |                    |
| 69 | SHAHAPURE RAJAT RAJENDRA   |                                                             |                        |                    |

Solapur

/Solapur S.S.  
DRC - CO-ordinator



Pa  
HOD, I.T.



Dr. J. J. Magdum College of Engineering, Jaysingpur.  
Department of Information Technology Engineering  
Class-B.Tech.ITBtech Project Details -2022-23

Date: 13/03/23

Refer all PR1-PR6 rubrics in detail to understand the meaning of a,b,c,d before giving marks

| Roll.No. | Name Of the Student         | Project group | Faculty Name With sign | PR4- review marks(20) |     | Total |
|----------|-----------------------------|---------------|------------------------|-----------------------|-----|-------|
|          |                             |               |                        | /10                   | /10 |       |
| 5        | JAMADADE SHREYA ANIL        | G2            | /I.T.P                 | a                     | b   | a+b   |
| 6        | MANGLEKAR RUTUJA PRAKASH    |               |                        | 4                     | 4   | 8     |
| 7        | MOHITE SAMRUDDHI SURESH     |               |                        | 4                     | 4   | 8     |
| 8        | NIMBALKAR AISHWARYA PRAKASH |               |                        | 4                     | 4   | 8     |
| 18       | PAWAR ASHLESHA MADHUKAR     | G5            | /A.G.C                 | 9                     | 10  | 19    |
| 19       | POTDAR DIPALI GAJANAN       |               |                        | AB                    | AB  | AB    |
| 20       | RAJPUT GOURI ARUNSING       |               |                        | 9                     | 10  | 19    |
| 21       | WAGH POONAM PRABHAKAR       |               |                        | 9                     | 10  | 19    |
| 22       | BANDGAR SAVITA APPASO       | G6            | /I.T.P                 | 5                     | 5   | 10    |
| 23       | PATHAN MUSKAN ISAK          |               |                        | 7                     | 7   | 14    |
| 24       | PATIL DIVYARANI DATTATRAY   |               |                        | 8                     | 8   | 16    |
| 25       | RAWAL MANASI MAHESH         |               |                        | 7                     | 7   | 14    |
| 26       | GAVALI ANUSHKA ARUN         | G7            | R.A.S                  | AB                    |     | AB    |
| 27       | KALE SHUBHAM DINESH         |               |                        | 9                     | 9   | 18    |
| 28       | MHAMULKAR SANIYA PANDURANG  |               |                        | 9                     | 9   | 18    |
| 29       | MORE ROHIT MARUTI           |               |                        | -                     | -   | AB    |
| 30       | BABAR YOGESHRI SHIVAJI      | G8            | R.A.S                  | 6                     | 6   | 12    |
| 31       | KENJALE KEDAR DATTATRAY     |               |                        | 6                     | 6   | 12    |
| 32       | KHADE NAYAN NAVJEEVAN       |               |                        | 6                     | 6   | 12    |
| 33       | PATIL NIKITA BALKRISHNA     |               |                        | 6                     | 6   | 12    |
| 34       | CHAVAN POOJA TULSIDAS       | G9            | /P.R.P                 | 6                     | 6   | 12    |
| 35       | DHOLE AKSHATA YUVRAJ        |               |                        | 6                     | 6   | 12    |
| 36       | JAMADADE VRUSHALI TANAJI    |               |                        | 6                     | 6   | 12    |
| 37       | MANE PRIJAKTA SHIVAJI       |               |                        | 6                     | 6   | 12    |





|    |                           |     |        |   |   |    |
|----|---------------------------|-----|--------|---|---|----|
| 42 | JADHAV SHRAVAN ASHOK      | G11 | /P.R.D | 4 | 4 | 8  |
| 43 | KANADE AMRUT ANANDA       |     |        | 9 | 9 | 18 |
| 44 | MANE SANDESH UTTAM        |     |        | 4 | 4 | 8  |
| 45 | SHELAKE ASHWAGANDHA MOHAN |     |        | 9 | 9 | 18 |
| 50 | HUKKERI SHRINATH RAJKUMAR | G13 | /P.R.P | 4 | 9 | 18 |
| 51 | RASAL ABHISHEKH SANJAY    |     |        | - | - | AB |
| 52 | DESAI RAHUL SHIVAJI       |     |        | - | - | AB |
| 53 | UPARATE SANKET SUDHAKAR   |     |        | 9 | 9 | 18 |
| 66 | BHOSALE OMKAR SHIVAJI     | G17 | /P.A.D | 5 | 5 | 10 |
| 67 | REVANNA PRATIK SACHIN     |     |        | 4 | 5 | 9  |
| 68 | SARNOBAT PRAJWAL KRUSHNAT |     |        | 5 | 4 | 9  |
| 69 | SHAHAPURE RAJAT RAJENDRA  |     |        | 5 | 4 | 9  |

CR4 -

- 1 - Quality and accuracy of Software System/Model
- 2 - Demonstration of software system /Module working and Functioning

Submitted by Faculty: P. R. Desai (P. Desai)

19/08/2018



A  
Project Report  
On  
“Hospitality Service Management System”  
Submitted by,

| Name of Student              | Roll No. |
|------------------------------|----------|
| Miss. Gawas Aashwini Raghoba | 01       |
| Mr. Kamble Siyang Prafulla   | 02       |
| Mr. Mithare Akash Suresh     | 03       |
| Mr. Nardekar Suraj Jaykumar  | 04       |

Under the guidance of  
Prof. S. J. Chougule



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DEPARTMENT OF INFORMATION TECHNOLOGY

Dr. J. J. Magdum College of Engineering, Jaysingpur.

Academic Year

2022-2023



Date - 18<sup>th</sup> December 2022

To,  
Dept. of Information Technology Engg.,  
Dr. J. J. Magdum college of Engineering,  
Jaisingpur.

**Sub - Sponsorship Letter for Project .**

This is to certify, that the following students of Information Technology dept. of Dr. J. J. Magdum college of Engineering, Jaisingpur are working on our project "IoT Based Hospitality Services Management System" fulfillment of their B. Tech Final Year project which is part of their syllabus.

We are offering sponsorship for their working project group.

1. Gawas Ashwini Raghoba.
2. Kamble Shyong Pradulla.
3. Mithare Akash Suresh.
4. Nardekar Suraj Jaykumar.



HOTEL RASIKA, KOLHAPUR



## **Abstract**

The Hospitality Services Management System for Online Liquor is a specialized software solution designed to streamline and enhance operations in the online liquor industry. This comprehensive system aims to provide a seamless and user-friendly experience for customers while optimizing the management of liquor products, orders, and customer interactions.

The system offers various modules and functionalities tailored specifically to the online liquor sector. It includes features such as product catalog management, order processing, inventory control, customer management, and secure payment processing, with the product catalog management module, liquor vendors can efficiently organize and showcase their product offerings. Detailed product information, including descriptions, prices, and availability, is readily available to customers, enabling them to make informed purchasing decisions.

The order processing module automates the entire order fulfillment process, from the placement of orders to order tracking and delivery. Customers can easily browse and select their preferred liquor products, add them to their cart, and proceed to checkout. The system handles order validation, updates inventory levels in real-time, and generates order confirmations for both customers and vendors. Inventory control is a critical aspect of the system, ensuring accurate stock management. It provides real-time visibility into inventory levels, allowing vendors to monitor stock availability, set thresholds for reordering, and manage stock replenishment efficiently.

Customer management features enable vendors to maintain customer profiles, manage loyalty programs, and offer personalized recommendations based on customers' preferences and purchase history. This fosters customer engagement and retention, ultimately enhancing customer satisfaction and loyalty. To facilitate secure and seamless transactions, the system integrates with trusted payment gateways, ensuring the confidentiality and integrity of customers' payment information. It supports various payment methods, such as credit cards, digital wallets, and online banking, providing customers with convenient options for completing their transactions.

By leveraging technology and automation, the Hospitality Services Management System for Online Liquor simplifies and streamlines various aspects of the online liquor business. It empowers vendors to efficiently manage their product offerings, process orders, maintain accurate inventory, and provide exceptional customer service. Ultimately, this system contributes to an enhanced online liquor shopping experience for customers while optimizing business operations and driving growth in the competitive online liquor industry.



We hope to receive similar cooperation in future also.

2008, and giving valuable guidance to the participants.

Gas Leakage Detector System Using Arduino UNO

RESISTANT DESIGN OF STRUCTURES" scheduled on 27<sup>th</sup> December

Program on "MODERN APPROACHES FOR EARTHQUAKE

honour' for the Valediction function on the Week Short Term Training

We express our sincere gratitude for presiding as a 'Guest of

Dear Sir, "Gas Leakage Detector System Using Arduino UNO"

Submitted by, Sub :- Thanking Letter...

Name of Student

Roll No.

Mr. Patil Sushant Vasant

Karad

Miss. Dhavale Pooja Yashawantrao

Government College of Engineering, Department of Applied Mechanics,

Miss. Jadhav Snehal Dattatray

Dr. Pranesh Murali,

To,

Under the guidance of

Date:- December 27, 2008

Prof. P. A. Tamgave

Ref.No.-JJMCOE/CV/STP/2008-09/151/A



DEPARTMENT OF INFORMATION TECHNOLOGY

Dr. J. J. Magdum College of Engineering, Jaysingpur.

Academic Year

2022-2023

Vice-Principal

Prof. A. K. Gupta

Dr. J. J. Magdum College Of Engineering, Jaysingpur

Information Technology

Head of the Department

Prof. U. H. Kamble

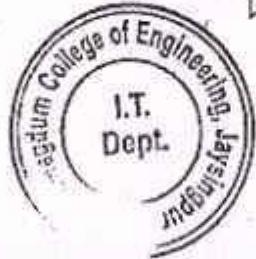


Yours faithfully,



[ Principal ]

*Patil*  
Dr. S. B. Patil



External Examiner

*Malu*

[ Project Guide ]  
Date:- December 27, 2008

Ref.No:- JIMCOE/CV/ST/P/2008-09/151  
[ Head, IT Department ]

To,  
Prof. R. A. Bharatiya

Prof. P. A. Tamgave

Shri. Niranjan Waichal,  
Structural Engineer,  
Waichal & Waichal Associates,  
Kohlapur.

have satisfactorily completed the project entitled " Gas Leakage Detector System By Using Arduino UNO" in partial fulfillment for award of Bachelor of Engineering Degree in Information Technology by Shivaji University, Kolhapur. Academic Year : 2022-23.

Miss. Jadhav. Snehal Dattatray

Miss. Dhavale Pooja Yashawantrao

Dear Sir,

Mr. Patil Sushant Vasantrao

### CERTIFICATE

We express our sincere gratitude for presiding as a 'Chief Guest' for the Valedictory function of One Week Short Term Training Program on "MODERN APPROACHES FOR EARTHQUAKE RESISTANT DESIGN OF STRUCTURES" held on 27<sup>th</sup> December 2008, and giving valuable guidance to the participants. We hope to receive similar cooperation in future also.

Jaysingpur - 416 101 . Thanking you,

Dr. J. J. Magdum College of Engineering,

Yours faithfully,  
Dr. J. J. Magdum Trust's

Gas Leakage Detector System Using Arduino UNO  
Dr. A. S. Yadav

Head  
Dept. of Civil Engg.  
MAERDS  
Co Coordinator  
MAERDS  
Prof. G. M. Malu  
Coordinator  
MAERDS

Abstract

Autonomous Robot which follows a line until that line exists. Generally, the line is drawn on the work floor. It can be either black or white. The line can also be normal visible colour or invisible magnetic field or electric field. The Arduino uno follows the line by using Infra-Red Ray (IR) sensors. There are five IR sensors which makes it an IR sensor array.

movement. Arduino uno follows path drawn on the floor. The line will be mainly black on a white surface. If it occurs any line break on its way, the Arduino uno will go forward. If it finds a cross line the Arduino uno will stop for a few seconds or avoid it, then resume its running on an obstacle-free path.

together, comparison of two strings, string handling functions. The meaning of an array, one-dimensional and two-dimensional arrays, declaration and initialization of arrays, reading, writing, and manipulation of arrays, detecting and continuously detect the surrounding area, if fire is detected by the Arduino uno from its fire sensing path. With the help of an alarm, the Arduino uno gives the indication that fire is detected and continues to alarm while not reaching its final destination.

Unit 4 Arrays and Strings

elements of User defined functions, defining functions, return values and their types, function calls, function declaration, methods of parameter passing, user defined and library functions.

Unit 3 Functions

Importance of 'C' Language, Sample 'C' Program, Structure of 'C' Program, Constants, variables and data types. Operators and expressions, Managing input / output operations, Control statements.

Unit 2 Introduction to 'C' Language

Contents to be deliver in Session.



A  
Project Report  
On

**“Medical Management System.”**

SUBMITTED BY,

**Nayan Navjeevan Khade  
Kedar Dattatray Kenjale  
Yogeshri Shivaji Babar  
Nikita Balkrishna Patil**

Under the guidance of  
**Prof. R.A.Bharatiya.**



**DEPARTMENT OF INFORMATION TECHNOLOGY,  
Dr. J. J. Magdum College of Engineering, Jaysingpur.**

**Academic Year**

**2022-23**





Dr. J. J. Magdum Trust's  
Dr. J. J. Magdum College of Engineering, Jaysingpur.



## CERTIFICATE

This is to certify that,

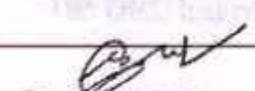
Mr. Nayan Navjeevan Khade.


Mr. Kedar Dattatray Kenjale.

Miss. Yogeshri Shivaji Babar.


Miss. Nikita Balkrishna Patil.

have satisfactorily completed the Project entitled "Medical Management System" in partial fulfillment for award of Bachelor of Engineering Degree in Information Technology by Shivaji University, Kolhapur in Academic Year 2022-23.

  
Project Guide  
Prof. R.A. Bharatiya.

  
Head of IT Dept,  
Prof. R.A. Bharatiya.

  
Principal  
Dr. Mrs. S. B. Patil

  
External Examiner



**Dr. J. J. Magdum College of Engineering, Jaysingpur.**

**Information Technology Department**



## **CERTIFICATE**

This is to certify that, Report of the project entitled,

**“Medical Management System”**

is presented before Department Research Committee (DRC) by,

| Sr No. | Student Name            | Roll No |
|--------|-------------------------|---------|
| 1      | Nayan Navjeevan Khade   | 32      |
| 2      | Kedar Dattatray Kenjale | 31      |
| 3      | Yogeshri Shivaji Babar  | 30      |
| 5      | Nikita Balkrishna Patil | 33      |

Under the guidance of Prof. R. A. Bharatiya for the academic year 2022-23.

The DRC has consented to give the approval for the said project.

Head,  
Department Research Committee, (DRC)  
Department of Information Technology



## ABSTRACT

The medical management system is built in order to replace manual based system to computerize. Here system is expected to be efficient, useful, and affordable on implementing tasks that is instructed by the pharmacy manager. Software does all things in pharmacy like sale, insert new incoming goods, make bills, calculate taxes, and debt, also compute employees' salaries, give information about products, make different statistics as best month to sale some product via provides charts, also manage employees work.

The purpose of Medical Management System is to automate the existing manual system by the help of computerized equipment's and full-fledged computer software, fulfilling their requirements. Medical management system project used to maintain and track medicine stock inventory detail and store customer and bill detail for medical store.

Medical Store Management System, as described above, can lead to error free, secure, reliable, and fast management system. It can assist the user to concentrate on their other activities rather to concentrate on the record keeping. Thus, it will help organization in better utilization of resources. The organization can maintain computerized records without redundant entries. Here in this medical store system project, we use MySQL database.

This is a very useful application for the pharmacist, which reduces the work load and it will help you to manage all the components of the pharmacy, such as Drug Administration, Invoicing, etc. that is, the increase in the efficiency of processing. This will increase the clinical efficiency and patient convenience, in view of the fact that Ethiopia is in the direction of the pharmaceutical care of the patient. It automates tasks, and account management. In a pharmacy, and the bill inspection is an essential process.



A  
Project Report  
On  
*“Hospital Management System”*

Submitted  
by

| Name of Student                | Roll No |
|--------------------------------|---------|
| Miss. Supriya Praveensinh Mane | 19      |
| Mr. Sourabh Tukaram Murukate   | 20      |
| Miss. Rutuja Pramod Salunkhe   | 32      |
| Miss. Smruti Dilip More        | 50      |

Under the guidance of  
*Prof. R. A. Sanadi*



DEPARTMENT OF INFORMATION TECHNOLOGY  
Dr. J. J. Magdum College of Engineering, Jaysingpur.



Academic Year 2021-2022

Dr. J. J. Magdum Trust's  
Dr. J. J. Magdum College of Engineering, Jaysingpur.



CERTIFICATE

This is to certify that,

|                                |    |
|--------------------------------|----|
| Miss. Supriya Praveensinh Mane | 19 |
| Mr. Sourabh Tukaram Murukate   | 20 |
| Miss. Rutuja Pramod Salunkhe   | 32 |
| Miss. Smruti Dilip More        | 50 |

has satisfactorily completed the project entitled "Hospital Management System" in partial fulfillment for award of Bachelor of Engineering Degree in Information Technology by Shivaji University, Kolhapur.

Guide  
Prof. R. A. Sanadi

Principal

Head,  
Dept. of IT

External Examiner



**Dr. J. J. Magdum College of Engineering, Jaysingpur**

**Information Technology Department**



## CERTIFICATE

This is to certify that the project entitled

**Hospital Management System**

is Presented before Department Research Committee (DRC) by,

| Sr.no | Name of Student    | Roll No. |
|-------|--------------------|----------|
| 1     | Supriya P Mane     | 19       |
| 2     | Sourabh T Murukate | 20       |
| 3     | Rutuja P Salunkhe  | 32       |
| 4     | Smruti D More      | 50       |

Under the guidance of Prof. R. A. Sanadi for the academic year 2021-22 The DRC has consented to give the approval for the said Project

  
Head,

**Department Research Committee (DRC)**

**Department of Information Technology**



It is having mainly two modules. One is at Administration Level and other one is of user i.e., of patients and doctors. The Application maintains authentication in order to access the application. Administrator task includes managing doctors' information, patient's information. To achieve this, am a database was designed one for the patient and other for the doctors which the admin can access. The complaints which are given by user will be referred by authorities.

The Patient modules include checking appointments, prescription. User can also pay doctor's Fee online.

Our project Hospital Management system includes registration of patients, storing their details into the system, and also booking their appointments with doctors.

Our software has the facility to give a unique id for every patient and stores the details of every patient and the staff automatically. User can search availability of a doctor and the details of a patient using the id. The Hospital Management System can be entered using a username and password. It is accessible either by an administrator or receptionist. Only they can add data into the database. The data can be retrieved easily. The interface is very user-friendly. The data are well protected for personal use and makes the data processing very fast.

## ABSTRACT





**DR. J.J. MAGDUM COLLEGE OF ENGINEERING, JAYSINGPUR**  
**DEPARTMENT OF INFORMATION TECHNOLOGY**  
**SY. BTECH MINI PROJECT LIST**  
**A.Y.2022-23(SEM-IV)**

| SR_NO | Roll No | Name                        | Topic Name              | Group No |
|-------|---------|-----------------------------|-------------------------|----------|
| 1     | 1       | ATIGRE PRATHAM UMAJI        | MINIATURE GOLF          | G1       |
| 2     | 3       | BHOSALE SAHIL ARVIND        |                         |          |
| 3     | 2       | BHOSALE RAJVARDHAN VIJAY    |                         |          |
| 4     | 6       | CHOUGALE KETAN BABASO       | FAIR DIVISION           | G2       |
| 5     | 4       | CHAVAN AKSHAY DAYANAND      |                         |          |
| 6     | 10      | DESHIMANE SHREYASH SHRIKANT | CARDIOLOGY              | G3       |
| 7     | 17      | GAVHANE ARYAN VIKAS         |                         |          |
| 8     | 25      | JADHAV SHIVAM SANJAY        |                         |          |
| 9     | 5       | CHIKHALKAR SHRIHARI SANDIP  | CAR RENTAL SYSTEM       | G4       |
| 10    | 13      | DUDHAL VIJAY SUNIL          |                         |          |
| 11    | 16      | GAIKWAD SHREYASH SANTOSH    | UNCROSSED KNIGHTS TOUR  | G5       |
| 12    | 7       | CHOUGULE AJAY SHIVAJI       |                         |          |
| 13    | 8       | DALAVI SWAPNIL ANANDA       |                         |          |
| 14    | 11      | DIVATE ATHARV ASHOK         | HAND OF THE FREE MARKED | G6       |
| 15    | 9       | *DESAI SALONI DILIP         |                         |          |
| 16    | 14      | *FAKIR MUSKAN MAKBUL        | SURVELLIANCE            | G7       |
| 17    | 15      | *GAIKWAD KALYANI AMOL       |                         |          |
| 18    | 12      | *DOMANE SAKSHI YUVARAJ      |                         |          |
| 19    | 18      | GUJAR SHREYASH ANAND        | CRYSTAL CROSSWIND       | G8       |
| 20    | 53      | *PATIL SAMARTHA AJIT        |                         |          |
| 21    | 59      | *PHALLE ASMITA RAMESH       | OPPORTUNITY COST        | G9       |
| 22    | 19      | *GURAV SIDDHI DILIP         |                         |          |
| 23    | 39      | *MANE GOURI GANESH          |                         |          |
| 24    | 41      | *MANE PRERANA ASHOK         | DEAD END DETECTOR       | G10      |
| 25    | 48      | PATIL ADITYA RAVSAHEB       |                         |          |
| 26    | 20      | *HONGEKAR ANJALI NANDKUMAR  |                         |          |
| 27    | 38      | *MANE AVANTIKA AJAY         |                         |          |
| 28    | 42      | *MANE SHREYA DINKAR         |                         |          |
| 29    | 69      | *VASUDEV PRADNYA SUNIL      |                         |          |
| 30    | 21      | HULWAN SHANTANU JAYDEEP     |                         |          |
| 31    | 24      | JADHAV SANKET SHIVAJI       |                         |          |
| 32    | 26      | JARAG DNYANESHWAR SAMPAT    |                         |          |
| 33    | 28      | KALEL AVISHKAR BHARAT       |                         |          |
| 34    | 22      | *INDALKAR ANTARI SHIVAJI    |                         |          |
| 35    | 27      | KAJI SAHIL SHABBIR          |                         |          |
| 36    | 36      | *LAYKAR AMRUTA CHANDRAKANT  |                         |          |
| 37    | 37      | MAGDUM ABHISHEK SHANKAR     |                         |          |
| 38    | 23      | INGOLE RAVIRAJ NAMDEO       |                         |          |





|    |    |                               |                       |     |
|----|----|-------------------------------|-----------------------|-----|
| 39 | 33 | *KOLEKAR SAKSHI AJIT          |                       |     |
| 40 | 34 | KUNDEKAR BHARAT UTTAM         |                       | G11 |
| 41 | 54 | PATIL SAMMED GUNDHAR          | LANDSCAP GENERATOR    |     |
| 42 | 30 | KATKAR AYUSH EKNATH           |                       |     |
| 43 | 31 | KHADE PRATIK TANAJI           |                       | G12 |
| 44 | 35 | LANJEWAR PALASH NAGSEN        | AZULEIOS              |     |
| 45 | 32 | *KHALATE SAMIDHA PRAMOD       |                       | G13 |
| 46 | 47 | *PATHAN SHAHIN HAKEEMASAB     |                       |     |
| 47 | 48 | PATIL ADITYA RAVSAHEB         |                       |     |
| 48 | 49 | *PATIL ARJU ASHOK             | COMMA SPRINKLER       |     |
| 49 | 40 | MANE KIRAN VILAS              |                       | G14 |
| 50 | 44 | MOHITE SUYOG SUNIL            |                       |     |
| 51 | 52 | PATIL MAHESH CHANDRAKANT      | GEM ISLAND            |     |
| 52 | 43 | MANE UTKARSH DILIP            |                       | G15 |
| 53 | 45 | NIKAM MAHADEV PANDURANG       |                       |     |
| 54 | 46 | NILKANTH ANSHUL UMESH         |                       |     |
| 55 | 51 | PATIL JINENDRA RAVINDRA       | MOSIAC BROWSING       |     |
| 56 | 50 | PATIL AVINASH PANDURANG       |                       | G16 |
| 57 | 63 | *SANGALE AISHWARYA PRAKASH    |                       |     |
| 58 | 64 | *SHAIKH AYESHASIDDIQA MEHBOOB |                       |     |
| 59 | 70 | *WANKAR MUSKAN AMIR           | TRAFFIC BLIGHT        |     |
| 60 | 55 | PATIL SAMMED SHANTINATH       |                       | G17 |
| 61 | 62 | SANADI SOHEL SALIM            |                       |     |
| 62 | 65 | SHINDE OMKAR MADHUKAR         |                       |     |
| 63 | 68 | THORAT RAJVARDHAN DHANAJIRAO  | SWAP SPACE            |     |
| 64 | 56 | PATIL SAMRUDDH DATTATRAY      |                       | G18 |
| 65 | 61 | RAUT PRATHAMESH PRASHANT      |                       |     |
| 66 | 66 | SHINDE PRATHMESH RAVINDRA     |                       |     |
| 67 | 71 | YADAV SWARUP MAHADEV          | CIRCULAR DNA          |     |
| 68 | 60 | *POWAR PALLAVI TANAJI         |                       |     |
| 69 | 57 | *PATIL SANIKA UTTAM           |                       | G19 |
| 70 | 67 | *SHINDE VAISHNAVI SANJAY      | WHICH PLANET IS THIS? |     |

*P.A. Tamgave*

Prof. P.A. Tamgave  
Miniproject Incharge

*J.T. Patil*

Prof. J. T. Patil  
Academic Coordinator

*R.A. Sanadi*

Prof. R. A. Sanadi  
HOD





DR. J.J. MAGDUM COLLEGE OF ENGINEERING, JAYSINGPUR  
DEPARTMENT OF INFORMATION TECHNOLOGY

SY IT MINI PROJECT(2022-23)  
PRACTICAL CONTINUES WORK ASSESSMENT  
TERMWORK

| Roll No | Seat No. | PRN No.    | Students Name               | Mid term |          | End term |          | Practical |           | Total     |  | Sing |
|---------|----------|------------|-----------------------------|----------|----------|----------|----------|-----------|-----------|-----------|--|------|
|         |          |            |                             | Out of 5 | Out of 5 | Out of 5 | Out of 5 | Out of 15 | Out of 25 | Out of 50 |  |      |
| 1       | 1694     | 2020081042 | ATIGRE PRATHAM UMAJI        | 4        | 4        | 4        | 4        | 11        | 19        | 38        |  |      |
| 2       | 1703     | 2020081171 | BHOSALE RAJWARDHAN VIJAY    | 2        | 3        | 2        | 3        | 12        | 17        | 34        |  |      |
| 3       | 1695     | 2020081059 | BHOSALE SAHIL ARVIND        | 3        | 3        | 3        | 3        | 10        | 16        | 32        |  |      |
| 4       | 1688     | 2020080804 | CHAVAN AKSHAY DAYANAND      | 4        | 4        | 4        | 4        | 10        | 17        | 34        |  |      |
| 5       | 1684     | 2020081157 | CHIKHALKAR SHRINHARI SANDIP | 4        | 4        | 4        | 4        | 10        | 18        | 36        |  |      |
| 6       | 1704     | 2020081164 | CHOUGALE KETAN BABASO       | 3        | 3        | 3        | 3        | 9         | 15        | 30        |  |      |
| 7       | 1705     | 2020080829 | CHOUGULE AJAY SHIVAJI       | 3        | 3        | 3        | 3        | 10        | 16        | 32        |  |      |
| 8       | 1706     | 2020081060 | DALAVI SWAPNIL ANANDA       | 3        | 2        | 3        | 2        | 12        | 17        | 34        |  |      |
| 9       | 1707     | 2020081198 | *DESAI SALONI DILIP         | 4        | 4        | 4        | 3        | 13        | 20        | 40        |  |      |
| 10      | 1708     | 2020081165 | DESHMANE SHREYASH SHRIKANT  | 3        | 4        | 3        | 4        | 13        | 20        | 40        |  |      |
| 11      | 1709     | 2020081040 | DIVATE ATHARV ASHOK         | 4        | 4        | 4        | 3        | 9         | 16        | 32        |  |      |
| 12      | 1685     | 2020081025 | *DOMANE SAKSHI YUVARAJ      | 4        | 4        | 4        | 3        | 14        | 21        | 42        |  |      |
| 13      | 1689     | 2019088865 | DUDHAL VIJAY SUNIL          | 4        | 4        | 4        | 3        | 11        | 18        | 36        |  |      |
| 14      | 1710     | 2020081155 | *FAKIR MUSKAN MAKBUL        | 4        | 4        | 4        | 4        | 14        | 22        | 44        |  |      |
| 15      | 1686     | 2020081037 | *GAIKWAD KALYANI AMOL       | 3        | 2        | 3        | 2        | 11        | 16        | 32        |  |      |
| 16      | 1711     | 2020081034 | GAIKWAD SHREYASH SANTOSH    | 3        | 3        | 3        | 3        | 13        | 19        | 38        |  |      |
| 17      | 1712     | 2020081156 | GAVHANE ARYAN VIKAS         | 2        | 3        | 2        | 3        | 11        | 16        | 32        |  |      |
| 18      | 1687     | 2020080978 | GUJAR SHREYASH ANAND        | 4        | 4        | 4        | 3        | 11        | 18        | 36        |  |      |
| 19      | 1713     | 2020081161 | *GURAV SIDDHI DILIP         | 3        | 3        | 3        | 3        | 14        | 20        | 40        |  |      |
| 20      | 1714     | 2020081153 | *HONGEKAR ANJALI NANDKUMAR  | 3        | 3        | 3        | 3        | 13        | 20        | 40        |  |      |






|    |      |            |                            |   |   |    |    |    |        |
|----|------|------------|----------------------------|---|---|----|----|----|--------|
| 21 | 1715 | 2020081200 | HULWAN SHANTANU JAYDEEP    | 2 | 3 | 12 | 17 | 34 | Defen. |
| 22 | 1716 | 2020080831 | *INDALKAR ANTARI SHIVAJI   | 3 | 4 | 13 | 20 | 40 |        |
| 23 | 1717 | 2020081170 | INGOLE RAVIRAJ NAMDEO      | 2 | 3 | 13 | 18 | 36 |        |
| 24 | 1696 | 2020081173 | JADHAV SANKET SHIVAJI      | 3 | 2 | 13 | 18 | 36 |        |
| 25 | 1690 | 2021079187 | JADHAV SHIVAM SANJAY       | 4 | 3 | 11 | 18 | 36 |        |
| 26 | 1718 | 2021079053 | JARAG DNYANESHWAR SAMPAT   | 4 | 3 | 10 | 17 | 34 |        |
| 27 | 1719 | 2021079198 | KAJI SAHIL SHABBIR         | 3 | 3 | 13 | 19 | 38 |        |
| 28 | 1720 | 2021079192 | KALEL AVISHKAR BHARAT      | 3 | 3 | 11 | 17 | 34 |        |
| 29 | 1721 | 2021079218 | KAMBLE ADITYA RAJU         | 4 | 3 | 11 | 18 | 36 |        |
| 30 | 1721 | 2021079077 | KATKAR AYUSH EKNATH        | 2 | 3 | 14 | 19 | 38 |        |
| 31 | 1691 | 2021079207 | KHADE PRATIK TANAJI        | 3 | 3 | 9  | 15 | 30 |        |
| 32 | 1697 | 2021079206 | *KHALATE SAMIDHA PRAMOD    | 3 | 3 | 11 | 17 | 34 |        |
| 33 | 1722 | 2021079209 | *KOLEKAR SAKSHI AJIT       | 3 | 3 | 13 | 19 | 38 |        |
| 34 | 1723 | 2020081160 | KUNDEKAR BHARAT UTTAM      | 3 | 3 | 11 | 17 | 34 |        |
| 35 | 1724 | 2021079212 | LANJEWAR PALASH NAGSEN     | 3 | 3 | 13 | 19 | 38 |        |
| 36 | 1725 | 2021079189 | *LAYKAR AMRUTA CHANDRAKANT | 4 | 3 | 12 | 19 | 38 |        |
| 37 | 1726 | 2021079208 | MAGDUM ABHISHEK SHANKAR    | 3 | 3 | 13 | 19 | 38 |        |
| 38 | 1727 | 2021079066 | *MANE AVANTIKA AJAY        | 3 | 4 | 14 | 21 | 42 |        |
| 39 | 1692 | 2021079061 | *MANE GOURI GANESH         | 3 | 2 | 14 | 19 | 38 |        |
| 40 | 1682 | 2021079222 | MANE KIRAN VILAS           | 3 | 3 | 9  | 15 | 30 |        |
| 41 | 1680 | 2021079190 | *MANE PRERANA ASHOK        | 3 | 2 | 11 | 16 | 32 |        |
| 42 | 1728 | 2021079171 | *MANE SHREYA DINKAR        | 3 | 3 | 13 | 19 | 38 |        |
| 43 | 1681 | 2021079114 | MANE UTKARSH DILIP         | 3 | 3 | 10 | 16 | 32 |        |
| 44 | 1729 | 2021079058 | MOHITE SUYOG SUNIL         | 2 | 3 | 11 | 16 | 32 |        |
| 45 | 1730 |            | NIKAM MAHADEV PANDURANG    | 2 | 3 | 10 | 15 | 30 |        |
| 46 | 1731 |            | NILKANTH ANSHUL UMESH      | 2 | 3 | 13 | 18 | 36 |        |
| 47 | 1732 | 2021079185 | *PATHAN SHAHIN HAKEEMASAB  | 3 | 3 | 14 | 20 | 40 |        |
| 48 | 1698 | 2021079181 | PATIL ADITYA RAVSAHEB      | 3 | 3 | 10 | 16 | 32 |        |
| 49 | 1733 | 2021079204 | *PATIL ARJU ASHOK          | 3 | 3 | 12 | 18 | 36 |        |
| 50 | 1734 | 2021079063 | PATIL AVINASH PANDURANG    | 3 | 3 | 11 | 17 | 34 |        |
| 51 | 1693 | 2021079199 | PATIL JINENDRA RA VINDRA   | 3 | 4 | 12 | 19 | 38 |        |
| 52 | 1735 | 2021079110 | PATIL MAHESH CHANDRAKANT   | 3 | 3 | 13 | 19 | 38 |        |
| 53 | 1699 | 2021079168 | *PATIL SAMARTHA AJIT       | 3 | 3 | 18 | 18 | 36 |        |



|    |      |            |                               |   |   |    |    |    |  |
|----|------|------------|-------------------------------|---|---|----|----|----|--|
| 54 | 1736 | 2021079186 | PATIL SAMMED GUNDHAR          | 2 | 3 | 11 | 16 | 32 |  |
| 55 | 1701 | 2021079080 | PATIL SAMMED SHANTINATH       | 3 | 4 | 11 | 18 | 36 |  |
| 56 | 1737 | 2021079049 | PATIL SAMRUDDH DATTATRAY      | 4 | 4 | 14 | 22 | 44 |  |
| 57 | 1738 | 2021079112 | *PATIL SANIKA UTTAM           | 3 | 3 | 11 | 17 | 34 |  |
| 58 | 1739 | 2021079194 | *PAWAR SHRADDHA TANAJI        | 2 | 3 | 13 | 18 | 36 |  |
| 59 | 1700 | 2021079213 | *PHALLE ASMITA RAMESH         | 3 | 2 | 11 | 16 | 32 |  |
| 60 | 1740 | 2021079210 | *POWAR PALLAVI TANAJI         | 3 | 3 | 13 | 19 | 38 |  |
| 61 | 1741 | 2021079179 | RAUT PRATHAMESH PRASHANT      | 3 | 2 | 14 | 19 | 38 |  |
| 62 | 1683 | 2021079051 | SANADI SOHEL SALIM            | 2 | 3 | 9  | 14 | 28 |  |
| 63 | 1742 | 2021079052 | *SANGALE AISHWARYA PRAKASH    | 2 | 3 | 13 | 18 | 36 |  |
| 64 | 1743 | 2021079060 | *SHAIKH AYESHASIDDIQA MEHBOOB | 3 | 3 | 11 | 17 | 34 |  |
| 65 | 1744 | 2021079215 | SHINDE OMKAR MADHUKAR         | 3 | 3 | 12 | 18 | 36 |  |
| 66 | 1745 | 2021079068 | SHINDE PRATHMESH RA VINDRA    | 3 | 4 | 14 | 21 | 42 |  |
| 67 | 1746 | 2021079214 | *SHINDE VAISHNAVI SANJAY      | 3 | 3 | 14 | 20 | 40 |  |
| 68 | 1702 | 2021079183 | THORAT RAJWARDHAN DHANAJIRAO  | 3 | 2 | 14 | 19 | 38 |  |
| 69 | 1747 | 2021079211 | *VASUDEV PRADNYA SUNIL        | 4 | 3 | 13 | 20 | 40 |  |
| 70 | 1748 | 2021079217 | *WANKAR MUSKAN AMIR           | 3 | 3 | 11 | 17 | 34 |  |
| 71 | 1749 | 2021079219 | YADAV SWARUP MAHADEV          | 3 | 3 | 9  | 15 | 30 |  |

  
 Prof. P. A. Tamgave  
 Subject Incharge

  
 Prof. J. T. Patil  
 Academic Coordinator

  
 Prof. R. A. Bharatiya  
 HOD



A

## Project Report

*“Project Title-  
Cardiology”*

Submitted by,

| Name                | Roll No. |
|---------------------|----------|
| Shrihari Chikhalkar | 5        |
| Vijay Dudhal        | 13       |
| Shreyash Gaikwad    | 16       |

*Under the guidance of*

*Prof. Ms J. T. Patil*



DEPARTMENT OF INFORMATION TECHNOLOGY  
Dr. J. J. Magdum College of Engineering, Jaysingpur  
Academic Year  
2022-2023





DR. J. J. MAGDUM COLLEGE OF ENGINEERING,  
JAYSINGPUR. DEPARTMENT OF INFORMATION  
TECHNOLOGY.

CERTIFICATE

This is to certify that,

Mr. Shrihari Chikhalkar

Mr. Vijay Dudhal

Mr. Shreyash Gaikwad

Students of Second Year Information Technology of Dr. J. J. Magdum College of Engineering, Jaysingpur has submitted project report on the subject

"CARDIOLOGY"

Under my supervision and guidance in a satisfactory manner in the academic year 2022 – 2023 Sem IV.

Place: Jaysingpur.


Date:

  
GUIDE

Prof. Ms. J. T. Patil

  
HOD

Prof. Mr. R. A. Bharatiya

  
PRINCIPAL  
Dr. S. B. Patil

Dr. J. J. Magdum College of Engineering, Jaysingpur,



Dr. J. J. Magdum College of Engineering, Jaysingpur

Department of Information Technology



## CERTIFICATE

This is to certify that, the project entitled, Cardiology is presented before Department Research Committee (DRC) by,

| Sr. No. | Name of Student     | Roll No. |
|---------|---------------------|----------|
| 1       | Shrihari Chikhalkar | 5        |
| 2       | Vijay Dudhal        | 13       |
| 3       | Shreyash Gaikwad    | 16       |

Under the guidance of Prof. J. T. Patil for the academic year 2022-23. The

DRC has consented to give the approval for the said project.

Head,

Department Research Committee, (DRC)

Department of Information Technology



## ABSTRACT

The Twenty-One Card Trick, also known as 11<sup>th</sup> card trick or three column tricks, is a simple self-working card trick that uses basic mathematics to reveal users selected card. The game uses selection of 21 cards out of a standard deck. These are shuffled and player selects one at random. The cards are then dealt out face up in three columns of 7 cards each. And player points at one card.





## INDEX

| SR.NO. | Title                                                                                                                                                             | PAGE NO. |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| 1      | Introduction<br><ol style="list-style-type: none"><li>1. Introduction</li><li>2. Literature Review</li><li>3. Existing System</li><li>4. Propose System</li></ol> | 5        |
| 2      | Methodology<br><ol style="list-style-type: none"><li>1. Proposed Methodology</li><li>2. Algorithm</li><li>3. Advantages</li><li>4. DFD</li></ol>                  | 8        |
| 3      | Requirement Analysis                                                                                                                                              | 16       |
| 4      | Program And Output                                                                                                                                                | 17-18    |
| 5      | Conclusion                                                                                                                                                        | 19       |
| 6      | References                                                                                                                                                        | 19       |



**A**  
**Mini Project**  
**Report On**  
***“Project Title-  
Dead End Detector”***

Submitted by,

| Name                      | Roll<br>No. |
|---------------------------|-------------|
| Indalkar Antari Shivaji   | 22          |
| Kaji Sahil Shabbir        | 27          |
| Laykar Amruta Chandrakant | 36          |
| Magdum Abhishek Shankar   | 37          |

*Under the guidance of  
Prof Pranoti Tamgave*



**DEPARTMENT OF INFORMATION TECHNOLOGY**  
**Dr. J. J. Magdum College of Engineering, Jaysingpur**  
**Academic Year**  
**2022-2023**





DR. J. J. MAGDUM COLLEGE OF ENGINEERING, JAYSINGPUR.

DEPARTMENT OF INFORMATION TECHNOLOGY.

CERTIFICATE

This is to certify that,

Miss.Indalkar Antari Shivaji.

Mr.Kaji Sahil Shabbir.

Miss.Laykar Amruta Chandrakant.

Mr.Magdum Abhishek Shankar.

Students of Second Year Information Technology of Dr. J. J. Magdum College of Engineering, Jaysingpur has submitted project Synopsis on the subject  
"Dead End Defector"

Under my supervision and guidance in a satisfactory manner in the academic year 2021 – 2022 Sem IV.

Place: Jaysingpur.

Date: 31/5/2023

  
GUIDE

Prof. Pranoti Tamgave

  
HOD

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Prof. S. B. Patil

  
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Dr. J. J. Magdum College of Engineering, Jaysingpur

Department of Information Technology



## CERTIFICATE

This is to certify that, the project entitled, Miniature Golf is presented before Department Research Committee (DRC) by,

| Sr. No. | Name of Student           | Roll No. |
|---------|---------------------------|----------|
| 1       | Indalkar Antari Shivaji   | 22       |
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| 4       | Magdum Abhishek Shankar   | 37       |

Under the guidance of Prof. Pranoti Tamgave for the academic year 2021-22.

The DRC has consented to give the approval for the said project.

  
Head,



Department Research Committee, (DRC)

Department of Information Technology

## INDEX

| SR.NO. | Title                                                                                                                                                                                 | PAGE NO. |
|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| 1      | Introduction<br><ol style="list-style-type: none"><li>1. Abstract</li><li>2. Introduction</li><li>3. Literature Review</li><li>4. Existing System</li><li>5. Propose System</li></ol> | 6-8      |
| 2      | Methodology<br><ol style="list-style-type: none"><li>1. Proposed Methodology</li><li>2. Algorithm</li><li>3. Advantages</li><li>4. DFD</li></ol>                                      | 9-12     |
| 3      | Requirement Analysis                                                                                                                                                                  | 13       |
| 4      | Program And Output                                                                                                                                                                    | 14       |
| 5      | Conclusion                                                                                                                                                                            | 16       |
| 6      | References                                                                                                                                                                            | 16       |



## ABSTRACT

The mini project titled "Dead End Detector" focuses on developing an algorithmic solution for identifying dead ends in a given network graph. Dead ends refer to nodes in a graph that have only one outgoing edge or no outgoing edges at all, making them unreachable from other nodes in the network.

The project aims to design and implement an efficient dead end detection system using the ICPC (International Collegiate Programming Contest) problem as a reference. The system utilizes graph traversal techniques to identify and highlight dead ends within a given graph. The project involves the following key components:

1. **Graph Representation:** The project begins with creating an appropriate data structure to represent the network graph. This may involve using adjacency lists, adjacency matrices, or other graph representations.
2. **Graph Traversal Algorithm:** An algorithmic approach is developed to traverse the graph and identify dead ends. This may include using depth-first search (DFS), breadth-first search (BFS), or any other suitable graph traversal technique.
3. **Dead End Detection:** The traversal algorithm is applied to the graph to identify nodes that qualify as dead ends. These nodes are isolated and have no further connections within the graph.
4. **Visualization and Output:** The identified dead ends are visually highlighted or displayed as output, allowing users to understand and analyze the structure of the given graph.

The abstract highlights the key objectives of the mini project, which include developing an efficient algorithmic solution for dead end detection, creating an appropriate graph representation, and providing a visual output to enhance understanding. The project aims to contribute to the field of graph theory and algorithm design by addressing the specific problem of dead end detection in network graphs.



**A**  
**Mini project**  
**REPORT ON**  
**TITLE:**  
**“SWAP SPACE”**

Submitted by,

| Sr. No. | Name of Student    | Roll No. |
|---------|--------------------|----------|
| 1)      | Sammed Patil.      | 55       |
| 2)      | Sohel Sanadi.      | 62       |
| 3)      | Omkar Shinde.      | 65       |
| 4)      | Rajvardhan Thorat. | 68       |

Under the guidance of  
**Prof. P.R.DESAI**



**DEPARTMENT OF INFORMATION TECHNOLOGY**  
**Dr. J. J. Magdum College of Engineering, Jaysingpur**  
**Academic Year**  
**2022-2023**





DR. J. J. MAGDUM COLLEGE OF ENGINEERING, JAYSINGPUR.  
DEPARTMENT OF INFORMATION TECHNOLOGY.

CERTIFICATE

This is to certify that,

Sammed Patil 55  
Sohel Sanadi 62  
Onkar Shinde 65  
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Students of Second Year Information Technology of Dr. J. J. Magdum College of Engineering, Jaysingpur has submitted project Synopsis on the subject

"swap space"

Under my supervision and guidance in a satisfactory manner in the academic year 2021 – 2022 Sem IV.

Place: jaysingpur

Date: 31/05/2023

Guide  
Prof. P.R. Desai

HOD  
Prof. R.A. Bharatiya

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**Dr. J. J. Magdum College of Engineering, Jaysingpur**

**Department of Information Technology**



# CERTIFICATE

This is to certify that, the project entitled, Miniature Golf is presented before Department Research Committee (DRC) by,

| Sr. No. | Name of Student   | Roll No. |
|---------|-------------------|----------|
| 1)      | Sammed patil      | 55       |
| 2)      | Sohel sanadi      | 62       |
| 3)      | Omkar shinde.     | 65       |
| 4)      | Rajvardhan thorat | 68       |

Under the guidance of Prof. Pranoti Tamgave for the academic year 2021-22.

The DRC has consented to give the approval for the said project.

Head,

Department Research Committee, (DRC)

Department of Information Technology



## INDEX

| SR. NO. | Title                                                                                                             | PAGE NO. |
|---------|-------------------------------------------------------------------------------------------------------------------|----------|
| 1       | Introduction<br>1. Abstract<br>2. Introduction<br>3. Literature Review<br>4. Existing System<br>5. Propose System | 6-9      |
| 2       | Methodology<br>1. Proposed Methodology<br>2. Algorithm<br>3. Advantages<br>4. DFD                                 | 10-12    |
| 3       | Requirement Analysis                                                                                              | 13       |
| 4       | Program And Output                                                                                                | 14-15    |
| 5       | Conclusion                                                                                                        | 16       |
|         |                                                                                                                   | 16       |
| 6       | References                                                                                                        |          |



## ABSTRACT

Welcome to Swap Space. A computer has a sufficient amount of physical memory but most of the time we need more so we swap some memory on disk. Swap space is a space on a hard disk that is a substitute for physical memory. It is used as virtual memory which contains process memory images. Whenever our computer runs short of physical memory it uses its virtual memory and stores information in memory on disk. Swap space helps the computer's operating system in pretending that it has more RAM than it actually has. It is also called a swap file. This interchange of data between virtual memory and real memory is called swapping and space on disk as "swap space".

Virtual memory is a combination of RAM and disk space that running processes can use. **Swap space** is the **portion of virtual memory** that is on the hard disk, used when RAM is full.





Sem Inq


Dr. J.J. Magdum Trust's  
Dr. J.J. Magdum College of Engineering, Jaysingpur  
Department of Information Technology  
2022-2023

Date: 22/05/2023


**NOTICE**  
**(Seminar)**

All the students of TY-IT are informed that, prepare your final seminar report in the below format up to 27<sup>th</sup> May, 2023 . Check it from your respective Seminar guide. The sample copy of seminar report is given on Google classroom. The link of Google classroom is, <https://classroom.google.com/c/NTIwMjEyMDQyMTEz?cjc=hoznx7m>.

| Sr. No. | Contents                                                                                                                      | Page No. |
|---------|-------------------------------------------------------------------------------------------------------------------------------|----------|
| 1       | Acknowledgement                                                                                                               |          |
| 2       | Abstract                                                                                                                      |          |
| 3       | Chapter 1<br>Introduction<br>1.1 Introduction to proposed topic<br>1.2 Literature Survey<br>1.3 Significance of the topic     |          |
| 4       | Chapter 2<br>Proposed Technology<br>1.1 Introduce to this technology<br>1.2 Types<br>1.3 Components<br>1.4 Tools & Techniques |          |
| 5       | Chapter 3<br>Application<br>1.1 Describe various application<br>1.2 Uses                                                      |          |
| 6       | Chapter 4<br>Discussion<br>1.1 Merits and Demerits<br>1.2 Hardware & Software requirements                                    |          |
| 7       | Chapter 5<br>Conclusion                                                                                                       |          |
| 8       | References                                                                                                                    |          |

  
Prof. A. G. Chendke  
Seminar In charge



  
Prof. R. A .Bharatiya  
HOD IT



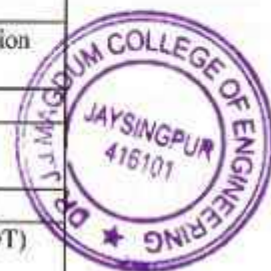


Dr. J. J. Magdum Trusts  
Dr. J. J. Magdum College of Engineering, Jaysingpur  
Department of Information Technology  
TY .Btech SEM-V I(2022-23) Subject-Seminar Topic Final

| Roll No. | Student Name                 | First Topic Name                                     | Second Topic Name                     | Final Topic                                          |
|----------|------------------------------|------------------------------------------------------|---------------------------------------|------------------------------------------------------|
| 1        | Sangramsinh Kantilal Bhusnar | 5 G wireless technology                              | Wireless network security             | Wireless network security                            |
| 2        | Bhushan Dandavate            | Virtual gaming                                       | Meta verse                            | Virtual gaming                                       |
| 3        | Desai Shubham B.             | Librabty management web app                          | Data base connectivity using SQL      | Librabty management web app                          |
| 4        | Vaibhavi Vinod Gaikwad       | Machine Learning                                     | Data Compression                      | Machine Learning                                     |
| 5        | Avantika Janardan Jambhale   | Artificial Intelligence                              | Data Compression                      | Artificial Intelligence                              |
| 6        | Aishwarya Kale               | Big Data                                             | Cloud Computing                       | Big Data                                             |
| 7        | Purushottam sanjay kamble    | Digital Signature                                    | Cyber security                        | Cyber security                                       |
| 8        | Swacchand kasar              | e- cash payment system                               | spring boot                           | spring boot                                          |
| 9        | Sudiksha Gajanan khedekar    | Virtual Reality                                      | Cloud computing                       | Virtual Reality                                      |
| 10       | Shweta Dhananjay khot        | Graphics processing unit                             | Firewall                              | Graphics processing unit                             |
| 11       | Yashoda Tukaram Kolape       | Blockchain                                           | Mobile computing                      | Blockchain                                           |
| 12       | Manali Rajendra Mankar       | DOS attack                                           | Wireless network security             | DOS attack                                           |
| 13       | Patil pratiksha Chandrakant  | Database security in Cloud computing                 | Product management system             | Database security in Cloud computing                 |
| 14       | Sarvesh patil                | Invisible technology                                 | mobile application development        | Invisible technology                                 |
| 15       | Omkar Dagadu Pinjari         | Cloud computing using Amazon web service             | Wireless Application Protocol         | Cloud computing using Amazon web service             |
| 16       | Suyog Shivaji Powar          | Cloud Computing                                      | Internet Of Things                    | Internet Of Things                                   |
| 17       | Shital Sanjay Salunkhe       | Search engine optimization                           | Java Swing                            | Search engine optimization                           |
| 18       | Sant Mayuri                  | Screenless Display                                   | DOS attack                            | Screenless Display                                   |
| 19       | Pratiksha Balaso Satape      | Network traffic Management                           | Software testing                      | Network traffic Management                           |
| 20       | Prajakta ramesh vhanhande    | SDLC                                                 | Cloud Security                        | Cloud Security                                       |
| 21       | sutar Swaliha                | Track my parcel- web app                             |                                       | Track my parcel- web app                             |
| 22       | Varad Shinde                 | Game development                                     | Ethical Hacking                       | Ethical Hacking                                      |
| 23       | Ganesh Yewate                | Quantom Computing                                    | Artificial Inteligence                |                                                      |
| 24       | Swapnil Kiran Abhrange       | Cyber attacks                                        | Construction Consultancy              | Construction Consultancy                             |
| 25       | Prathmesh Pradeep Aitawade   | Flutter Application Development                      | Web Application                       | Flutter Application Development                      |
| 26       | Ana Raju Bandi               | Operating system                                     | The future of IOT                     | The future of IOT                                    |
| 27       | Anjali Bansode               | Question paper manage survey                         |                                       | Question paper manage survey                         |
| 28       | Kirtikumar Ashok Birnale     | Barcod technology                                    | Man in middle attack                  | Man in middle attack                                 |
| 29       | Chavan Aishwarya             | Data mining applications using google cloud platform | Encrytion using google cloud platform | Data mining applications using google cloud platform |
| 30       | Choudhari Siddhant Sachin    | Digital twin tchnique                                | Mobile Infrastructure                 | Digital twin tchnique                                |



|    |                                        |                                                                     |                                                                             |                                                                     |
|----|----------------------------------------|---------------------------------------------------------------------|-----------------------------------------------------------------------------|---------------------------------------------------------------------|
| 31 | Anand Chougule                         | ADAS advance driving assist system                                  | Graphical Processing Unit                                                   | ADAS advance driving assist system                                  |
| 32 | Dhakane Jyoti Sudhakar                 | Android app development                                             | IoT                                                                         | Android app development                                             |
| 33 | Dhavale Om                             | Hologram                                                            | Smart Devices                                                               |                                                                     |
| 34 | Ajay Dhananjay Dhokale.                | Driver Drowsiness detection                                         | Virtual Reality                                                             | Driver Drowsiness detection                                         |
| 35 | Samruddhi devidas fase                 | Home Automation                                                     | Wireless USB                                                                | Home Automation                                                     |
| 36 | Gurav Prathamesh                       | hyperleger fabric                                                   | Ethereum Blockchain                                                         | Ethereum Blockchain                                                 |
| 37 | Sakshi Sharad Hargude                  | Weather App.                                                        | Portfolio Website                                                           | Weather App.                                                        |
| 38 | Hulle Abhijit Padappa                  | Near field Communication                                            | Snap Dragoan                                                                | Snap Dragoan                                                        |
| 39 | Ingale Aswini                          | Data compresion technique                                           | Multi-touch Technology                                                      | Data compresion technique                                           |
| 40 | JADHAV SHIVAM RAMCHANDRA               | CYBER TERRORISM                                                     | STORAGE AREA NETWORK                                                        | CYBER TERRORISM                                                     |
| 41 | Preeti Jalindar Kadam                  | Chatgpt Technology                                                  | Machine Learning                                                            | Chatgpt Technology                                                  |
| 42 | Kamble Yogesh                          |                                                                     |                                                                             |                                                                     |
| 43 | Kamble Hrishkesh Deepak                | Robotics process automation                                         | 5 G technology                                                              | Robotics process automation                                         |
| 44 | Neha Ulhas Khanaj                      | Google glass                                                        | GSM                                                                         | Google glass                                                        |
| 45 | Sakshi Mohan Kore                      | Rasberry pi                                                         | Finger scan technology                                                      | Rasberry pi                                                         |
| 46 | Shreyash Nilesh Kothari                | Barcode                                                             | Virtual Reality                                                             | Virtual Reality                                                     |
| 47 | Sanket Kumbhar                         | Cyber security and ethical hacking (SQL Injection )                 | Social engineering attacks                                                  | Cyber security and ethical hacking (SQL Injection )                 |
| 48 | Vaishnavi Vishwas Lad                  | Gi-Fi Technology                                                    | Multi-touch Technology                                                      | Multi-touch Technology                                              |
| 49 | Anuradha Maruti Lohar                  | Fishing Attack                                                      | Blockchain_Technolog<br>y                                                   | Fishing Attack                                                      |
| 50 | Rushikesh Jaykumar Magdum              | Artificial intelligence                                             | Cloud computing                                                             | Cloud computing                                                     |
| 51 | Ajeem Aniskhan Makandar                | ATM using Fingerprint                                               | tableau python                                                              | tableau python                                                      |
| 52 | Pratiksha Pravin Mane                  | Web Scraping                                                        | HCI- Human computer Interface                                               | Web Scraping                                                        |
| 53 | Sonal vijay methé                      | Chatbot design and development                                      | image processing using open CV                                              | image processing using open CV                                      |
| 54 | Vinayak Mhetre                         | Night vision technology                                             | Voice Portal                                                                | Night vision technology                                             |
| 55 | Sainath Vilas Mohite                   | Supervised machine learning                                         | Unsupervised machine learning                                               | Supervised machine learning                                         |
| 56 | more abhijeet venkatrao                | Quantum Computing and its Applications                              | Robotics and automation                                                     | Robotics and automation                                             |
| 57 | Swapnil Anil Pakhare                   | Deep Learning Techniques for Image Recognition and Object Detection | Natural Language Processing: Applications, Challenges and Future Directions | Deep Learning Techniques for Image Recognition and Object Detection |
| 58 | Pradeep Mahadev Parit                  | Metaverse                                                           | Hologram                                                                    | Metaverse                                                           |
| 59 | Aditya Dhondiram Alias Balasaheb Patil | Ambient Intelligence                                                | Digital Signature                                                           | Ambient Intelligence                                                |
| 60 | Pournima Pandurang Patil               | Cloud computing or technology                                       | Eye gaze comunication                                                       | Eye gaze comunication                                               |
| 61 | Sakshi Rajendra Patil                  | Phishing                                                            | Opera(Web browser)                                                          |                                                                     |
| 62 | Sakshi Sanjay Patil                    | BlockChain Technology                                               | Blue Brain Technology                                                       |                                                                     |
| 63 | Sayali Rajaram Patil                   | MANET                                                               | Virtual Instrumentation                                                     |                                                                     |
| 64 | Patil Sneha Ganpati                    | Web of Things (WOT)                                                 | Computer forensics                                                          | Web of Things (WOT)                                                 |



|    |                              |                                |                                   |                                   |
|----|------------------------------|--------------------------------|-----------------------------------|-----------------------------------|
| 65 | Subodh Patil                 | Autopiolet                     | 5G                                | Autopiolet                        |
| 66 | Rhushabh Pethkar             | Onion Routing                  | Networking in Cloud Security      | Onion Routing                     |
| 67 | Sourabh Pethkar              | Cloud Security                 | IoT Security                      | IoT Security                      |
| 68 | Gauri arun pise              | Smart card                     | Green computing                   |                                   |
| 69 | Shubhangi Rajesh Pujari      | Data security in local network | Internet of Things                | Data security in local network    |
| 70 | Samruddhi savaikar           | Silverlight                    | Cyber bullying detection          | Cyber bullying detection          |
| 71 | Aftab Firojkhani Shaikh      | Intergreated Circuit           | Automatic Sanitizer unnel Machine | Automatic Sanitizer unnel Machine |
| 72 | Vaibhav Todkar               | IPV 6                          | Quantum Computing                 |                                   |
| 73 | Ruchita Yadav                | Role of AI and ML in robotics  | Machine learning                  | Role of AI and ML in robotics     |
| 74 | Aniruddha parshuram yalgudre | Web 3.0 Technology             | touch screen                      | Web 3.0 Technology                |
| 75 | Rajkumar Balasaheb Ainapure  | Anjular JS framework           | Big Data                          | Anjular JS framework              |
| 76 | Patil Vrushab                | Block chain technology         | Robotics                          | Block chain technology            |
| 77 |                              |                                |                                   |                                   |

  
 Prof. A. G. Chendke  
 Seminar Coordinator

  
 Prof. J. T. Patil  
 Academic Coordinator

  
 Prof. R. A. Bharatiya  
 HOD



Dr. J. J. Magdum Trusts  
 Dr. J. J. Magdum College of Engineering, Jaysingpur  
 Department of Information Technology  
 TY Btech SEM-VI (2022-23)  
 TERMWORK(Marks-25)  
 Subject-seminar



| Roll no. | Seat No. | Student Name                   | Topic    | Information | Presentat | Interactio | PPT      | Total     |
|----------|----------|--------------------------------|----------|-------------|-----------|------------|----------|-----------|
|          |          |                                | Out of 5 | Out of 5    | Out of 5  | Out of 5   | Out of 5 | out of 25 |
| 8        | 3814     | KASAR SWACCHAND SAMBHAI        | 4        | 4           | 4         | 4          | 4        | 20        |
| 14       | 3815     | PATIL SARVESH AVINASH          | 4        | 2           | 2         | 2          | 3        | 13        |
| 77       | 3816     | KAMBLE YOGESH SATYAWAN         | 3        | 3           | 2         | 2          | 2        | 12        |
| 24       | 3817     | ABHRANGE SWAPNIL KIRAN         | 5        | 5           | 4         | 4          | 5        | 23        |
| 75       | 3818     | AINAPURE RAJKUMAR BALASAHEB    | 4        | 5           | 4         | 4          | 5        | 22        |
| 25       | 3819     | AITAWADE PRATHMESH PRADEEP     | 5        | 5           | 4         | 4          | 5        | 23        |
| 26       | 3820     | * BANDI ANA RAJU               | 5        | 5           | 4         | 4          | 5        | 23        |
| 27       | 3821     | * BANSODE ANJALI PRAKASH       | 5        | 5           | 4         | 4          | 4        | 22        |
| 1        | 3822     | BHUSNAR SANGRAMSINH KANTILAL   | 5        | 4           | 4         | 4          | 4        | 21        |
| 28       | 3823     | BIRNALE KIRTIKUMAR ASHOK       | 5        | 5           | 4         | 4          | 4        | 22        |
| 29       | 3824     | * CHAVAN AISHWARYA VILAS       | 5        | 5           | 4         | 4          | 5        | 23        |
| 30       | 3825     | CHOUDHARI SIDDHANT SACHIN      | 5        | 5           | 4         | 4          | 4        | 22        |
| 31       | 3826     | CHOUGULE ANAND DILIP           | 5        | 5           | 4         | 4          | 5        | 23        |
| 2        | 3827     | DANDAVATE BHUSHAN SADASHIV     | 4        | 4           | 3         | 3          | 4        | 18        |
| 3        | 3828     | DESAI SHUBHAM BHIMGONDA        | 4        | 4           | 3         | 3          | 4        | 18        |
| 32       | 3829     | * DHAKANE JYOTI SUDHAKAR       | 3        | 4           | 3         | 3          | 4        | 17        |
| 33       | 3830     | DHAVALA OM CHANDRASHEKHAR      | 5        | 5           | 4         | 4          | 4        | 22        |
| 34       | 3831     | DHOKALE AJAY DHANANJAY         | 5        | 5           | 4         | 4          | 4        | 22        |
| 35       | 3832     | * FASE SAMRUDDHI DEVIDAS       | 5        | 5           | 4         | 4          | 4        | 22        |
| 4        | 3833     | * GAIKWAD VAIBHAVI VINOD       | 5        | 5           | 4         | 4          | 5        | 23        |
| 36       | 3834     | GURAV PRATHAMESH GANPATI       | 5        | 5           | 4         | 4          | 5        | 23        |
| 37       | 3835     | * HARGUDE SAKSHI SHARAD        | 4        | 4           | 3         | 3          | 4        | 18        |
| 38       | 3836     | HULLE ABHIJIT PADAPPA          | 4        | 4           | 4         | 4          | 4        | 20        |
| 39       | 3837     | * INGALE ASHWINI RAMESH        | 4        | 4           | 4         | 4          | 5        | 21        |
| 40       | 3838     | JADHAV SHIVAM RAMCHANDRA       | 5        | 4           | 4         | 4          | 5        | 22        |
| 5        | 3839     | * JAMBHALE AVANTIKA JANARDAN   | 5        | 5           | 4         | 4          | 5        | 23        |
| 41       | 3840     | * KADAM PREETI JALINDAR        | 4        | 4           | 5         | 4          | 4        | 21        |
| 6        | 3841     | * KALE AISHWARYA SUBHASH       | 5        | 4           | 4         | 4          | 4        | 21        |
| 43       | 3842     | KAMBLE HRISHIKESH DEEPAK       | 4        | 4           | 3         | 4          | 5        | 20        |
| 7        | 3843     | KAMBLE PURUSHOTTAM SANJAY      | 4        | 4           | 3         | 3          | 4        | 18        |
| 44       | 3844     | * KHANAJ NEHA ULHAS            | 5        | 5           | 4         | 5          | 4        | 23        |
| 9        | 3845     | * KHEDEKAR SUDIKSHA GAJANAN    | 4        | 4           | 3         | 4          | 4        | 19        |
| 10       | 3846     | * KHOT SHWETA DHANANJAY        | 4        | 4           | 3         | 4          | 3        | 18        |
| 11       | 3847     | * KOLAPE YASHODA TUKARAM       | 5        | 5           | 5         | 4          | 4        | 23        |
| 45       | 3848     | * KORE SAKSHI MOHAN            | 4        | 4           | 4         | 4          | 5        | 21        |
| 46       | 3849     | KOTHARI SHREYASH NILESH        | 4        | 4           | 5         | 4          | 5        | 22        |
| 47       | 3850     | KUMBHAR SANKET SANJAY          | 5        | 5           | 4         | 4          | 5        | 23        |
| 48       | 3851     | * LAD VAISHNAVI VISHWAS        | 5        | 5           | 5         | 4          | 4        | 23        |
| 49       | 3852     | * LOHAR ANURADHA MARUTI        | 5        | 4           | 4         | 5          | 5        | 23        |
| 50       | 3853     | MAGDUM RUSHIKESH JAYKUMAR      | 5        | 4           | 5         | 5          | 4        | 23        |
| 51       | 3854     | MAKANDAR AJEEM ANISKHAN        | 5        | 4           | 4         | 4          | 4        | 21        |
| 52       | 3855     | * MANE PRATIKSHA PRAVIN        | 4        | 4           | 5         | 4          | 5        | 22        |
| 12       | 3856     | * MANKAR MANALI RAJENDRA       | 4        | 4           | 4         | 4          | 4        | 20        |
| 53       | 3857     | * METHE SONAL VIJAY            | 5        | 5           | 5         | 4          | 4        | 23        |
| 54       | 3858     | MHETRE VINAYAK SADASHIV        | 4        | 5           | 4         | 4          | 4        | 21        |
| 55       | 3859     | MOHITE SAINATH VILAS           | 5        | 5           | 5         | 3          | 4        | 22        |
| 56       | 3860     | MORE ABHUEET VENKATRAO         | 5        | 4           | 4         | 4          | 5        | 22        |
| 57       | 3861     | PAKHARE SWAPNIL ANIL           | 5        | 4           | 4         | 4          | 4        | 21        |
| 58       | 3862     | PARIT PRADEEP MAHADEV          | 4        | 4           | 3         | 4          | 4        | 19        |
| 62       | 3863     | * PATIL SAKSHI SANJAY          | 4        | 5           | 4         | 4          | 4        | 21        |
| 59       | 3864     | PATIL ADITYA DHONDIRAM ALIAS B | 4        | 4           | 3         | 4          | 4        | 19        |
| 60       | 3865     | * PATIL POURNIMA PANDURANG     | 5        | 3           | 2         | 3          | 2        | 15        |
| 13       | 3866     | * PATIL PRATIKSHA CHANDRAKAN   | 5        | 5           | 4         | 4          | 5        | 23        |



|    |      |                              |   |   |   |   |   |    |
|----|------|------------------------------|---|---|---|---|---|----|
| 61 | 3867 | * PATIL SAKSHI RAJENDRA      | 4 | 4 | 4 | 4 | 3 | 19 |
| 63 | 3868 | * PATIL SAYALI RAJARAM       | 5 | 4 | 4 | 5 | 5 | 23 |
| 64 | 3869 | * PATIL SNEHA GANPATI        | 5 | 4 | 5 | 3 | 4 | 21 |
| 65 | 3870 | PATIL SUBODH RAVINDRA        | 4 | 4 | 4 | 3 | 3 | 18 |
| 76 | 3871 | PATIL VRUSHAB BAIJRAO        | 3 | 2 | 3 | 3 | 3 | 14 |
| 66 | 3872 | PETHKAR RHUSHABH MANISH      | 5 | 4 | 4 | 5 | 5 | 23 |
| 67 | 3873 | PETHKAR SOURABH GIRISH       | 4 | 4 | 3 | 4 | 4 | 19 |
| 15 | 3874 | PINJARI OMKAR DAGADU         | 4 | 2 | 2 | 2 | 3 | 13 |
| 68 | 3875 | * PISE GAURI ARUN            | 4 | 5 | 5 | 4 | 4 | 22 |
| 16 | 3876 | POWAR SUYOG SHIVAJI          | 4 | 4 | 4 | 4 | 4 | 20 |
| 69 | 3877 | * PUJARI SHUBHANGI RAJESH    | 5 | 4 | 4 | 4 | 5 | 22 |
| 17 | 3878 | * SALUNKHE SHITAL SANJAY     | 5 | 5 | 4 | 4 | 5 | 23 |
| 18 | 3879 | * SANT MAYURI DEVANAND       | 4 | 4 | 4 | 4 | 4 | 20 |
| 19 | 3880 | * SATAPE PRATIKSHA BALASO    | 5 | 5 | 4 | 4 | 5 | 23 |
| 70 | 3881 | * SAVAIKAR SAMRUDDHI SHRIHAR | 5 | 4 | 5 | 5 | 4 | 23 |
| 71 | 3882 | SHAIKH AFTAB FIROJKHAN       | 4 | 3 | 4 | 4 | 3 | 18 |
| 22 | 3883 | SHINDE VARAD SUDARSHAN       | 4 | 4 | 4 | 4 | 4 | 20 |
| 21 | 3884 | * SUTAR SWALIHA INAYATULLA   | 5 | 5 | 4 | 4 | 5 | 23 |
| 72 | 3885 | TODKAR VAIBHAV DEVBA         | 4 | 4 | 4 | 4 | 4 | 20 |
| 20 | 3886 | * VHANKHANDE PRAJAKTA RAMES  | 4 | 4 | 3 | 3 | 4 | 18 |
| 73 | 3887 | * YADAV RUCHITA BHARAT       | 4 | 4 | 4 | 5 | 5 | 22 |
| 74 | 3888 | YALGUDRE ANIRUDDHA PARSHUR   | 5 | 4 | 4 | 4 | 4 | 21 |
| 23 | 3889 | YEWATE GANESH GOVIND         | 5 | 5 | 4 | 4 | 5 | 23 |
| 42 |      |                              |   |   |   |   |   | 0  |

*Alhadh*  
Subject Incharge

*Ar*  
Exam Incharge

*Zati*  
Academic Co-ordinator

*BW*  
HOD IT Departmen



A

Seminar On

*“Data Mining Applications Using  
Google Cloud Platform”*

Submitted by,  
Ms. Aishwarya Vilas Chavan

*Under the guidance of  
Prof. A. G. Chendke*



DEPARTMENT OF INFORMATION TECHNOLOGY  
DR. J. J. MAGDUM COLLEGE OF ENGINEERING,  
JAYSINGPUR

ACADEMIC YEAR  
2022-2023





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**DEPARTMENT OF INFORMATION TECHNOLOGY.**

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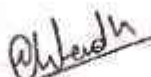
**"Data Mining Applications Using Google Cloud Platform"**


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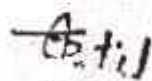
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**INDEX**

| Ch. NO | CONTENTS                                                                       | PAGE NO |
|--------|--------------------------------------------------------------------------------|---------|
| I      | Acknowledgement                                                                | i       |
| II     | Abstract                                                                       | ii      |
| III    | List of Abbreviations                                                          | iii     |
| IV     | List of Figure                                                                 | iv      |
| 1      | Introduction                                                                   | 1       |
| 2      | Literature Survey                                                              | 2       |
| 3      | Methodology<br>3.1 Machine Learning on Google Cloud<br>3.2 Architecture Design | 3       |
| 4      | Features of Data Mining Applications Using Google Cloud Platform               | 9       |
| 5      | Advantages                                                                     | 11      |
| 6      | Conclusion.                                                                    | 13      |
| 7      | References                                                                     | 15      |





**Dr. J. J. MAGDUM COLLEGE OF ENGINEERING,  
JAYSINGPUR.**

**Department of Information Technology**

**A SEMINAR REPORT ON,**

**“IPv6 Addressing”**

*Submitted by,*

**Vaibhav Devba Todkar**

---

*Under the guidance of*

**Prof.  A. S. Patil**





**DR. J. J. MAGDUM COLLEGE OF ENGINEERING, JAYSINGPUR.  
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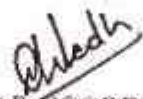
**"IPv6 Addressing"**

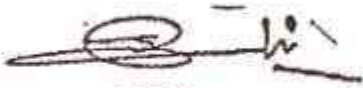
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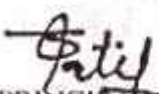
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**Dr. J. J Magdum College of Engineering, Jaysingpur**  
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**Academic Year 2022-23.**

**INDEX**

| Sr. No. | Contents                                                                                                                             | Page No. |
|---------|--------------------------------------------------------------------------------------------------------------------------------------|----------|
| I       | Acknowledgement                                                                                                                      | i        |
| II      | Abstract                                                                                                                             | ii       |
| III     | List of Abbreviations                                                                                                                | iii      |
| IV      | List of Figures                                                                                                                      | iv       |
| 1       | Introduction<br>1.1 Introduction to IPv6 Addressing<br>1.1.1 IPv6<br>1.1.2 IPv6 Header Format<br>1.2 Significance of IPv6 Addressing | 1        |
| 2       | Literature Survey                                                                                                                    | 7        |
| 3       | Methodology<br>3.1 Introduce to IPv6 Addressing<br>3.2 Types of IPv6 Address<br>3.3 Transition of IPv6<br>3.4 Tools and Techniques   | 9        |
| 4       | Application and Uses<br>4.1 Various Application of IPv6 Addressing<br>4.2 Uses of IPv6 Addressing                                    | 16       |
| 5       | Advantages                                                                                                                           | 19       |
| 6       | Challenges and Limitations                                                                                                           | 21       |
| 7       | Conclusion                                                                                                                           | 23       |
| 8       | References                                                                                                                           | 24       |





**Dr. J. J. MAGDUM COLLEGE OF ENGINEERING,  
JAYSINGPUR.**

**Department of Information Technology**

**A SEMINAR REPORT ON ,**

**“Phishing”**

*Submitted by,*  
**Sakshi Rajendra Patil.**

Under the guidance of,  
**Prof. Mrs. A.S.Patil.**





DEPARTMENT OF INFORMATION TECHNOLOGY  
Dr. J. J. MAGDUM COLLEGE OF ENGINEERING,  
JAYSINGPUR.



CERTIFICATE


This is to certify that , Sakshi Rajendra Patil Student of Third Year Information Technology Dr. J. J. Magdum college of Engineering, Jaysingpur have satisfactorily completed the seminar on ,

“Phishing”


Towards the partial fulfill of TY B.Tech in information Technology for the academic year 2022-23.This Report Represent the benefited work done by student.

Place: Jaysingpur

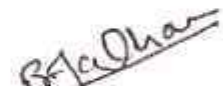
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**Academic Year 2022-23.**

**INDEX**

| CH. NO | CONTENTS                                                                                                                                                           | PAGE NO |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| I      | Acknowledgement                                                                                                                                                    | i       |
| II     | Abstract                                                                                                                                                           | ii      |
| 1      | Introduction<br>1.1 Abbreviations<br>1.2 Figures<br>1.3 Introduction to proposed topic<br>1.4 Literature Review<br>1.5 Significance of the topic<br>1.6 Objectives | 3-9     |
| 2      | Proposed Technology<br>2.1 Introduce to this technology.<br>2.2 Types<br>2.3 Components<br>2.4 Case Studies                                                        | 10-14   |
| 3      | Application<br>3.1 Describe Various Application<br>3.2 Uses                                                                                                        | 15-17   |
| 4      | Discussion<br>4.1 Prevention Technology<br>4.2 Merits And Demerits<br>4.3 Future Trends And Technologies<br>4.4 Scope<br>4.5 Hardware and Software Requirements.   | 18-19   |
| 5      | Conclusion                                                                                                                                                         | 20      |
| 6      | References                                                                                                                                                         | 21      |



subject - STTP / FDP attended.

| Sr. No | Name of Faculty       | Name of workshop                                                              | Duration of workshop | Place (Name of College)                                |
|--------|-----------------------|-------------------------------------------------------------------------------|----------------------|--------------------------------------------------------|
| 1      | Ms. S. J. Chougule    | Amazon web services cloud                                                     | One day              | Jimcoe                                                 |
|        |                       | Research methodology                                                          | Two day              | Bharati Vidyapeeth, Kolhapur                           |
|        |                       | Research funding schemes and writing proposal                                 | One day              | JIMCOE                                                 |
|        |                       | Power BI                                                                      | One day              | JIMCOE                                                 |
| 2      | Pallavi R. Desai      | AWS cloud                                                                     | 1 day                | Dr. JIMCOE                                             |
|        |                       | Data Visualization using power BI                                             | 1 day                | Dr. JIMCOE                                             |
|        |                       | Research Methodology: Tools and Techniques                                    | 2 days               | Bharati Engineering college, Kolhapur                  |
|        |                       | Deep Learning                                                                 | 1 week               | VIIT, Pune                                             |
|        |                       | Amazon web services Cloud                                                     | ONE DAY              | JIMCOE                                                 |
| 3      | Prof. P. R. Patil     | Data visualization using power BI                                             | ONE DAY              | JIMCOE                                                 |
|        |                       | "Deep Learning Application Development, Tools and Research"                   | 28th Feb -4th        | VIIT, Pune                                             |
| 4      | Ms. Jayshree T. Patil | "Research Methodology: Tools and Techniques"                                  | 24th March -2        | Bharati Vidyapeeth's College of Engineering, Kolhapur. |
|        |                       | One Day FDP on "Data Analysis using Visualization Tools-An Industry Approach" | 31st March 20        | Dr. JIMCOE, Jaysingpur.                                |
|        |                       | AWS cloud                                                                     | 1 day                | Dr. J J Magdum college of engg, Jaysingpur.            |
|        |                       | Research Funding scheme and Writing Proposals                                 | 1 day                | Dr. J J Magdum college of engg, Jaysingpur.            |
|        |                       | Research Methodology: Tools and Techniques                                    | 2 day                | Bharati Vidyapeeth's college of engg, Kolhapur.        |



|   |                      |                                                                               |                |                                                                                                              |
|---|----------------------|-------------------------------------------------------------------------------|----------------|--------------------------------------------------------------------------------------------------------------|
|   |                      | Data analysis using Visualization Tools-<br>An Industry Approach              | 1 day          | <u>Dr. JI Magdum college of Engg. Jaysingpur</u>                                                             |
| 6 | Prof. R.A. Bharatiya | Data analysis using Visualization Tools-<br>An Industry Approach<br>AWS cloud | 1 day<br>1 day | <u>Dr. JI Magdum college of Engg. Jaysingpur</u><br><u>Dr. JI Magdum college of Engineering, Jaysingpur.</u> |
| 7 | Prof. S.B. Holkar    | Data analysis using Visualization Tools-<br>An Industry Approach<br>AWS cloud | 1 day<br>1 day | <u>Dr. JI Magdum college of Engg. Jaysingpur</u><br><u>Dr. JI Magdum college of Engineering, Jaysingpur.</u> |
|   |                      | Research Methodology: Tools and<br>Techniques                                 | 2 day          | <u>Bharati Vidyapeeth's college of engg. Kolhapur.</u>                                                       |
|   |                      | Research Funding scheme and<br>Writing Proposals                              | 1 day          | <u>Dr. JI Magdum college of engg. Jaysingpur.</u>                                                            |
| 8 | Prof. P.A. Tamagve   | Data analysis using Visualization Tools-<br>An Industry Approach<br>AWS cloud | 1 day<br>1 day | <u>Dr. JI Magdum college of Engg. Jaysingpur</u><br><u>Dr. JI Magdum college of Engineering, Jaysingpur.</u> |
|   |                      | Research Methodology: Tools and<br>Techniques                                 | 2 day          | <u>Bharati Vidyapeeth's college of engg. Kolhapur.</u>                                                       |
|   |                      | Research Funding scheme and<br>Writing Proposals                              | 1 day          | <u>Dr. JI Magdum college of engg. Jaysingpur.</u>                                                            |





# CERTIFICATE

This certificate declares that



*Jayali Bhushansinha Holkar*

has successfully completed two days online FDP on "Research Methodology: Tools and Techniques" organized by Department of Computer Science & Engineering of Bharati Vidyapeeth's College of Engineering, Kolhapur under lead college Shivaji University, Kolhapur from 24th March to 25th March 2023



*Dr. V. D. Chougule*

**Mr. V. D. Chougule**  
Coordinator

*Ms. A. M. Yadav*

**Ms. A. M. Yadav**  
Coordinator

*Mrs. S. M Mulla*

**Mrs. S. M Mulla**  
Convener

*Dr. V. R. Ghorpade*

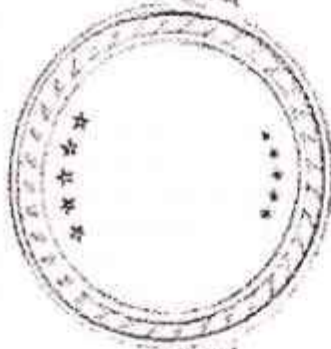
**Dr. V. R. Ghorpade**  
Principal

Made for free with Certify'em



# CERTIFICATE

This certificate declares that



## Rajesh Appa Bharatiya

has successfully completed two days online FDP on "Research Methodology: Tools and Techniques" organized by Department of Computer Science & Engineering of Bharati Vidyaapeeth's College of Engineering, Kolhapur under lead college Shivaji University, Kolhapur from 24th March to 25th March 2023

*[Signature]*

**Dr. V. D. Chougule**  
Coordinator

*[Signature]*

**Ms. A. M. Yadav**  
Coordinator

*[Signature]*

**Mrs. S. M Mulla**  
Convener

*[Signature]*

**Dr. V. R. Ghorpade**  
Principal



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Dr. J. J. Magdum

**DR.'s J. J. MAGDUM COLLEGE OF  
ENGINEERING, JAYSINGPUR**



Your Dream, Our Mission

An ISO 21001: 2018 Certified Institute  
NAAC 'A' grade accredited Institute

# Certificate

This is to Certify that Dr/Prof/Mr/ Ms/Mrs Sadhana J. Chougule has attended One Day Workshop on "Research Funding Scheme and Writing Proposals" Organised by Research and Development Cell held on 18<sup>th</sup> March 2023.

**Dr. D. B. Desai**  
Workshop Coordinator

**Dr. Mrs. S. B. Patil**  
Principal

**Dr. S. S. Admuthé**  
Campus Director



Made for free with Certify'em



# CERTIFICATE OF PARTICIPATION

This Certificate is awarded to

**Ms. Jayshree T. Patil**

For actively participating in 5 days Faculty Development Program on "Deep Learning Application Development, Tools and Research" Organized By Department of Artificial Intelligence and Data Science, VIIT, Pune, India held from 28th February - 4th March 2023.

Mr. Prasad Chaudhari  
Assistant Professor  
AI&DS Dept, VIIT

Mr. Yashwant Ingle  
Assistant Professor  
AI&DS Dept, VIIT

Dr. Parikshit Mahalle  
Head of Dept  
AI&DS

Dr. Vivek Deshpande  
Director-VIIT, Pune






STP/FDP  
Conducted

Subject - STP/FDP conducted.

| Number of Seminars/conferences/workshops conducted by the institution during the year |                                                      |                        |                |
|---------------------------------------------------------------------------------------|------------------------------------------------------|------------------------|----------------|
| Year                                                                                  | Name of the workshop/ seminar                        | Number of Participants | Date From - To |
| 2022-23                                                                               | Data Analysis using visualisation tools- An Industry | 22                     | 31/03/2023     |
| 2022-23                                                                               | Linux Basics                                         | 20                     | 3/12/2023      |



## Lead College Program Proposal

|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | To,<br>The Director<br>TKIET, Warananagar.                                                                                                                                                                                                                                                                                                                                                                             |
| Name of the College/Institute<br>Date(s) of Event-                                | Dr. J. J. Magdum College of Engineering, Jaysingpur<br>Proposed date 31 <sup>st</sup> January 2023                                                                                                                                                                                                                                                                                                                     |
| Name of Activity/Program                                                          | One Day Faculty Development Program on: "Data Analysis using visualization tools –an Industry approach"                                                                                                                                                                                                                                                                                                                |
| Activity Type<br><small>(Student/Academic/Research/Cultural/Sports/other)</small> | Academic                                                                                                                                                                                                                                                                                                                                                                                                               |
| Target<br>Participants (Students/Faculty/Nonteaching/etc.)                        | Faculty members from Computer Science, Information Technology, Electronics, Civil and Mechanical Engineering.                                                                                                                                                                                                                                                                                                          |
| Name of the Coordinator                                                           | Prof. R.A. Sanadi                                                                                                                                                                                                                                                                                                                                                                                                      |
| Objectives of the program                                                         | The Objective of this program is to expose the faculty members of nearby colleges in training and education to improve occupational & technical knowledge as per the Industry need. This workshop provides hands-on for the software tools which are being used in the industry for data visualization. It will enhance the knowledge of the faculties for the state of the art technologies as per the industry need. |
| Abstract of program                                                               | The purpose of this workshop is to develop skills and techniques necessary to bridge the gap between academia and industry, skill up gradation. It will help the faculties to upgrade student knowledge as per the industry need. The hands on session will again help to increase the practical knowledge as compare to theoretical knowledge.                                                                        |





Dr. J. J. Magdum Trust

**Dr. J. J. Magdum College of Engineering, Jaysingpur**

ISO 21001:2018 CERTIFIED INSTITUTE

Accredited with "A" Grade by NAAC

**Department of Information Technology  
Faculty Development Cell**



# Certificate

\* \* \* \* \*

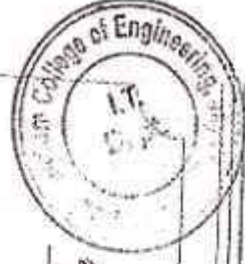
This is to Certify that, Mr./Ms./Mrs./  
Department from \_\_\_\_\_ of \_\_\_\_\_  
has attended One Day workshop on "Data Analysis using  
Visualization Tools - An Industry Approach" under Lead College Program of Shivaji University,  
Kolhapur on Friday, 31st March 2023 at Dr. J. J. Magdum College of Engineering, Jaysingpur.

*Prof. P. R. Patil*  
FDP COORDINATOR

*Prof. R. A. Bharatiya*  
HOD, IT

*Dr. Mrs. S. B. Patil*  
PRINCIPLE

*Dr. S. S. Admathe*  
CAMPUS DIRECTOR



One Day Faculty Development Program

On

**Data Analysis using visualization  
Tools --An Industry Approach**

Under

Lead College Scheme of Shivaji  
University, Kolhapur

Friday 31/03/2023

### REGISTRATION FORM

Name of Participant:

Designation:

Name of the Organization:

Address:

Moblie No.:

E-mail ID:

How to Apply :

Prescribed form has to be filled by an individual  
with institute heads signature and College stamp  
and send to following email id -

[pournima.patil@iimcoe.ac.in](mailto:pournima.patil@iimcoe.ac.in)

Registration Fees:

No fees for Member Institutes  
Fees for other institutes Rs.200/-

Signature & Seal of Sponsoring Authority



Remark

### OBJECTIVES OF PROGRAMME

- This course helps how to setup and run Cloud Services in Amazon Web Services (AWS) all the way through to IaaS with hands-on experience on AWS Public cloud.
- It helps to understand basic concept & structure of cloud computing and apply their knowledge about AWS cloud to identify / rectify problems onboard.
- To understand and get hands on Elastic Load Balancers, Understanding High Availability Configuration ELB Configuration, Auto Scaling, Identity & Access Management, Understanding the IAM Policies, IAM User

### RESOURCE PERSON:

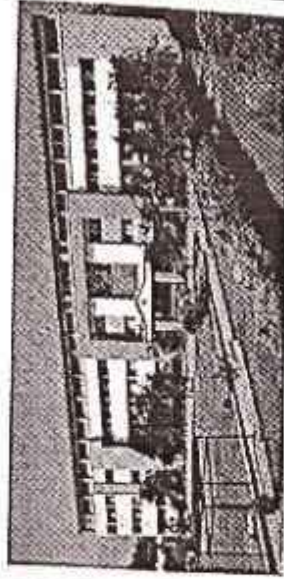
**Mr. Yogesh Prabhakar Murumkar**  
Chief Executive Officer and Corporate  
Trainer, Bharat Soft Solutions, Pune

### ELIGIBLE PARTICIPANTS:

- Teaching faculty
- Research Scholars



Dr. J. J. Magdum Trust's  
**Dr. J. J. Magdum College of Engineering,**  
Jaysingpur



Information Technology Department  
Organizes

One Day Faculty Development Program

OR

**"Data Analysis using visualization  
Tools --An Industry Approach"**

Under  
Lead College Scheme of  
Shivaji University, Kolhapur



On Friday, 31/03/2023

#### About Institute

Dr. J. J. Magdum College of Engineering, Jaysingpur is one among the premier technical institutes in Maharashtra state. It was established, in 1992, by Dr. J. J. Magdum Trust under the charismatic leadership of Late Dr. J. J. Magdum. The mission of the institute is to have holistic development of all courses by following participating management methodology, healthy HR practices, strong industry participation and continuous development in physical resources. The institute is accredited by NBA, New Delhi and also accredited by TCS, Bangalore. Institute runs five UG and one PG courses.

#### About Department (IT)

The Department was started in the year 2007. The department students have a disciplined environment and experience research and experimentation in the best possible laboratories for their career. The department has magnificent placement records over the last many years. The department always strives to give best expertise knowledge to students for betterment of their career. Both departments maintain good Industry Institute partnership by which students are signed with renowned industries.

#### ● CHIEF PATRONS:

**Dr. Veejhay J. Magdum**  
Chairman,

Dr. J.J. Magdum Trust, Jaysingpur

**Adv. Dr. Mrs. Sonale V. Magdum**

Vice Chairperson,

Dr. J.J. Magdum Trust, Jaysingpur

#### ● ADVISORY COMMITTEE:

**Dr. Sunil S. Admuthé**

Campus director

**Dr. Mrs. S. B. Patil**

I/C Principal

**Prof. M. U. Phutane**

Dean Faculty Development Cell

**Dr. Mrs. S. R. Mahadik**

Coordinator Lead College Scheme, SUK

#### ● CONVENER:

**Prof. R.A. Bharatiya**

Associate Professor

HOD, Dept. of Information Technology

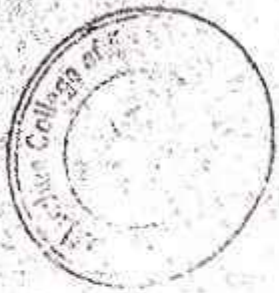
#### ● Co-ordinator :

**Prof. P.R. Patil**

Assistant Professor

Department of Information Technology

Mob No. 8788096923





Dr. J. J. Magdum Trust's  
Dr. J. J. Magdum College of Engineering, Jaysingpur  
DEPARTMENT OF INFORMATION TECHNOLOGY

One Day Workshop on  
"Data Analysis using visualization Tools -An Industry Approach"

**FEEDBACK FORM**

Participants are required to fill up this form by tick (✓) marking in appropriate space against each question and write their honest impression wherever asked. Please remember that this feedback form will only serve to improve our future programs.

1) Whether the workshop is useful to you?

Excellent

Good

Satisfactory

2) Are the contents in workshop are sufficient?

Sufficient

Too Long

Too Short

3) Is the duration of workshop is sufficient?

Sufficient

Too Long

Too Short

4) Willing to attend such workshop in future?

Yes

No

5) Comments, Suggestions impressions if any

Excellent & informative workshop





Dr. J. J. Magdum Trust's (No. E / 902)

Dr. J. J. Magdum College of Engineering,  
Jaysingpur.

Department of Information Technology

One Day University level FDP on  
"Data Analysis using visualization Tools –An Industry Approach"  
under  
Lead College Scheme of  
Shivaji University, Kolhapur

Day: Friday

Date: 31/03/2023

| Sr. No | Time               | Session              | Venue          |
|--------|--------------------|----------------------|----------------|
| 1      | 9.30am to 10am     | Registration         |                |
| 2      | 10am to 10.20am    | Inaugural Function   |                |
| 3      | 10.20am to 10.35am | Breakfast & Tea      |                |
| 4      | 10.45am to 1.30pm  | Session – I          |                |
| 5      | 1.30pm to 2.30pm   | Lunch Break          | CCF Department |
| 6      | 2.30pm to 3.30pm   | Session – II         |                |
| 7      | 3.30pm to 3.40pm   | High Tea Break       |                |
| 8      | 3.40pm to 4.40pm   | Session – III        |                |
| 9      | 4.45pm onwards     | Valedictory Function |                |





Date : 31 March, 2023





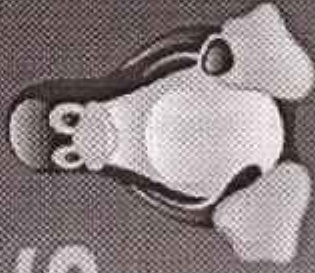


Dr. J. J. Magdum Trust's

# Dr. J. J. Magdum College of Engineering, Jaysingpur. Department of Information Technology

Organizes A One-Day University Level

## Linux Basics



Hands-On Workshop  
For Supporting Staff

By

**Mr. Ranjit Vandaka**

**Bits Techno Development Pvt. Ltd. Kolhapur.**

Highly Qualified & Experienced Industrialist Person

(10 years as an Instructor & 09 years in IT Industry)

09:30 AM to 04:30 PM

3 December,

2022

IT @ JJMCDE

REGISTRATION FEE : 200/-

IT-CERTIFICATE WILL BE GIVEN TO EACH PARTICIPANT

CONTACT : 8421522064

For Registration



<https://forms.gle/9QMGv9288raZrhw4UA>

**Prof. S. S. Solapur**  
DRC & FDP Head

**Prof. R. A. Sanadi**  
Head of Department

**Dr. S. B. Patil**  
Principal

**Dr. S. S. Admuthe**  
Campus Director





Dr. J. J. Magdum Trust's

# Dr. J. J. Magdum College of Engineering, Jaysingpur. Department of Information Technology

Organizes A One Day University Level

## Linux Basics



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Prof. S. S. Solapure  
DRC & FDP Head

Prof. R. A. Sanadi  
Head of Department

Dr. S. B. Patil  
Principal

Dr. S. S. Admuthé  
Campus Director

For Registration



<https://forms.gle/8QMGg28bn9zmvVt8A>



University Level One Day Workshop  
on  
"LINUX BASICS"  
(Hands-On)

Saturday, 3<sup>rd</sup> December 2022

REGISTRATION FORM

Name of Participant: Mr. Rohan B. Waghmare

Designation: Sr. Technical Assistant

Name of the Organization: APCET, Ashra.

Mailing Address: RAW - etc @ adcet.in

Tel. No.:

Mobile No.: 9637431966

E-mail ID: raw\_etc @ adcet.in

How to Apply:

1. Through online registration link provided in brochure  
Or
  2. Prescribed form has to be filled by an individual with institute heads signature and college stamp.
- 200/- registration fees

Signature & Seal of Sponsoring Authority

Online Registration Link :

<https://forms.gle/VjgWbUuUAsTMG8RZ>

CHIEF PATRONS

Dr. Vijay J. Magdum

Chairman,

Dr. J. J. Magdum Trust, Jaysingpur

Adv. Dr. Mrs. Sonale V. Magdum

Vice Chairperson,

Dr. J. J. Magdum Trust, Jaysingpur

ADVISORY COMMITTEE:

Dr. Sunil S. Admuthé

Campus Director

Dr. J. J. Magdum College of Engineering, Jaysingpur

Dr. Mrs. S. B. Patil

I/C Principal & Coordinator

Dr. J. J. Magdum College of Engineering, Jaysingpur

CONVENER:

Prof. R. A. Sanadi

HOD & Assistant Professor

Department of Information Technology

COORDINATORS:

Prof. S. S. Solapure

DRC & FDP Head

Assistant Professor

Department of Information Technology

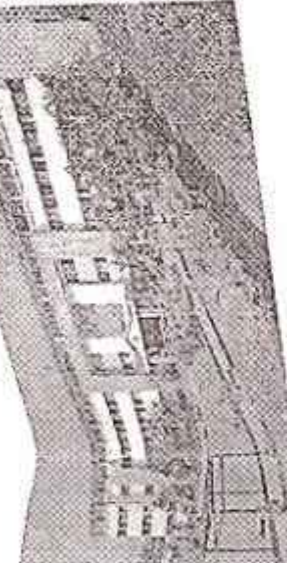
E-mail: [shiwari.solapure@jimscoe.ac.in](mailto:shiwari.solapure@jimscoe.ac.in)

Mobile No: - 7498008084



University Level One Day Workshop

on  
"LINUX BASICS"  
(Hands-On)



Dr. J. J. Magdum College of Engineering,  
Jaysingpur

Organized by

Information Technology Department

Day & Date: Saturday, 3<sup>rd</sup> December 2022



|     |                           |           |
|-----|---------------------------|-----------|
| 11  | Shantanu Hulwani          | Shantay   |
| 13  | Ingole Ravindra           | Ingole    |
| 14  | Jadhav Santosh            | Jadhav    |
| 39  | Mahesh Patil              | Mahesh    |
| 60  | Vijay Dudnal              | Dudnal    |
| 22  | Bharat Kundekar           | BK        |
| 50  | Omkar Shinde              | Omkar     |
| DSY | Shreyash Santosh Gaikwad  | Gaikwad   |
| 63  | Sahil Shabbir Kaji        | Sahil     |
| 32  | Mahadev Nikam             | Nikam     |
| 62  | Dnyaneshwar Joraj         | Joraj     |
| 56  | Rajvardhan Bhosale        | Bhosale   |
| 61  | Shreyash Anand Gujar      | Gujar     |
| 64  | Swapnil Ananda Dakvi      | Dakvi     |
| 23  | Palash N. Lajewar         | Lajewar   |
| 24) | Ayush Kattkar             | Kattkar   |
| 25) | Atharv Divote             | Divote    |
| 26) | Avishkar Kalel            | Kalel     |
| DSY | Pradny Sunil Vasudev      | Vasudev   |
| DSY | Anjali Mandkumar Hongekar | Anjali    |
| DSY | Avantika Aijay Mane.      | A.A. Mane |
| DSY | Shreya Dinkar mane        | Shreya    |
| 36  | Aruj Ashok Patil          | Patil     |
| 52  | Vaishnavi Sanjay Shinde   | Shinde    |
| 44  | Pooja Pallavi Tanaji      | Pooja     |
| 49  | Shaikh Ayesha Siddiq      | Shaikh    |
| 08  | Fakir Muskan              | Fakir     |
| 24  | Laykar Ameeta C           | Ameeta    |
| 54  | Muskan Amis Wankar        | Muskan    |




# Dr.J.J.Magdum College of Engineering, Jaysingpur


Department of Information Technology

Expert Lectures by Academician  
Year:2022-2023

| Sr.No. | Person Name                                             | Title                       | Dates(from-to)<br>(DD-MM-YYYY)                             | Year |
|--------|---------------------------------------------------------|-----------------------------|------------------------------------------------------------|------|
| 1      | Prof. S. S. Satpute<br>Asst. Professor,JJMCOE           | File Handling in C          | 06-01-2023 to 06-01-2023                                   | 2023 |
| 2      | Dr. S. B. Patil,<br>Principal,JJMCOE                    | Interfacing Techniques in 8 | 03-01-2023 to 03-01-2023                                   | 2023 |
| 3      | Mr. Sunil Kore                                          | Interfacing IO devices      | 02-12-2022 to 02-12-2022                                   | 2022 |
| 4      | Ms. P. R. Desai,<br>Asst. Professor,JJMCOE              | Synchronization in OS       | 29-11-2022 to 29-11-2022                                   | 2022 |
| 5      | Mrs. Varsha Lokare,<br>Asst. Professor, RIT<br>Sakhrale | PHP & Bootstrap Framework   | 14-12-2022 to 14-12-2022                                   | 2022 |
| 6      | Mr. Pradip Khot,<br>DKTE,Ichalkaranji                   | Turning Machine             | 19-05-2023 to 19-05-2023                                   | 2023 |
| 7      | Mr. Rohit D. Mane,<br>Asst. Professor,JJMCOE            | Cyber Security              | <del>19</del><br>22-05-2023 to <del>19</del><br>22-05-2023 | 2023 |

  
Prof. P. R. Patil  
Expert Lecture Coordinator



  
Prof. R. A. Bharatiya  
HOD





Dr. J.J. Magdum Trust's  
Dr. J.J. Magdum College of Engineering, Jaysingpur  
Department of Information Technology  
2022-2023

Date: 05/01/2023


## NOTICE

All the students of TY IT are hereby informed that, department is going to arrange a expert lecture on "File Handling in C" for SY-BTech class.

The schedule for the same is mentioned below,

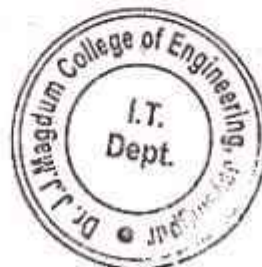
|                 |   |                                                                                             |
|-----------------|---|---------------------------------------------------------------------------------------------|
| Venue           | : | Classroom 207                                                                               |
| Lecture         | : | Offline Mode                                                                                |
| Day and Date    | : | Thursday, 6 <sup>th</sup> Jan 2023                                                          |
| Time            | : | 9:30 am. To 11:30am.                                                                        |
| Resource Person | : | Prof. Sneha S. Satpute<br>Assistant Professor,<br>CSE Department,<br>Dr. JJMCOE, Jaysingpur |

So, everyone should attend the same.

  
Ms. P. R. Desai  
Expert lecture  
Co-ordinator

  
Prof. J.T. Patil  
Academic Coordinator

  
Mr. R. A. Sanadi  
Head of Department



Expert lecture on "File Handling on C" (06/01/ 2023 SY-IT)





Dr. J. J. Magdum Trust's

**Dr.J.J.Magdum College of Engineering, Jaysingpur**  
Department of Information Technology

*Expert* Lectures by Industrialist  
Year:2022-2023

| Sr.No. | Industrial Person Name                                                                          | Title                 | Dates(from-to)(DD-MM-YYYY) | Year |
|--------|-------------------------------------------------------------------------------------------------|-----------------------|----------------------------|------|
| 1      | Mr. Umesh H. Annegirikar<br>Atos<br>Syntel Ltd. Talawade,<br>System Analyst<br>Application Lead | Database Connectivity | 15-12-2022 to 15-12-2022   | 2022 |
| 2      | Mr. Akib Momin<br>CEO & R&D Head,<br>Mirasung<br>Technologies, Miraj                            | MangoDB and NodeJS    | 23-03-2023 TO 23-03-2023   | 2023 |
| 3      | Mr. Yogesh P. Murumkar<br>CEO & Corporate Trainer,<br>Bharat Soft Solutions,<br>Pune            | Power BI              | 31-03-2023 to 30-03-2023   | 2023 |

*P.R. Patil*

Prof. P. R. Patil  
Expert Lecture Coordinator



*R. A. Bharatiya*

Prof. R. A. Bharatiya  
HOD







Dr. J.J. Magdum Trust's  
Dr. J.J. Magdum College of Engineering, Jaysingpur  
Department of Information Technology  
2022-2023

Date: 14/12/2022

## NOTICE

All the students of TY IT are hereby informed that, department is going to arrange a expert lecture on "JAVA Database Connectivity" under ITESA.

The schedule for the same is mentioned below,

|                        |   |                                                             |
|------------------------|---|-------------------------------------------------------------|
| <b>Venue</b>           | : | Classroom 206                                               |
| <b>Lecture</b>         | : | Offline Mode                                                |
| <b>Day and Date</b>    | : | Thursday, 15 <sup>th</sup> Dec 2022                         |
| <b>Time</b>            | : | 9.30am. To 11:30am.                                         |
| <b>Resource Person</b> | : | Mr. Umesh Annegirikar,<br>Application Lead,<br>Atos Syntel. |

So, everyone should attend the same.

Ms. P. R. Desai  
Expert lecture  
Co-ordinator

Prof. J.T. Patil  
Academic Coordinator

Mr. R. A. Sanadi  
Head of Department



Expert lecture on "Java Database Connectivity" (15/12/2022 SY-IT)






Dr. J.J. Magdum Trust's (No. E/902)

**Dr. J.J. Magdum College of Engineering, Jaysingpur**  
**Department of Information Technology**

**Guest Lecture Details**  
**A.Y. 2022-2023**

| Sr.No. | Date       | Details of Resource Person                                                    | Class   | Topic                  |
|--------|------------|-------------------------------------------------------------------------------|---------|------------------------|
| 1      | 27/03/2023 | Mr. Vaibhav Sutar, CEO, Vishwa Technologies, Wathar                           | SY      | Introduction to Python |
| 2      | 21/03/2023 | Mr. Sailesh Dinde, Automation Tester                                          | BTECH   | AWS                    |
| 3      | 8/11/2022  | Mr. Vijay Khot, Asst. Professor, JMCOF                                        | TYIT    | Business Start Up      |
| 4      | 16/11/2021 | Mrs. Vinayshree S. Akkalkot<br>Director Domain Computer<br>Education, Sangli. | BTECHIT | AWS-Cloud Computing    |



  
**HOD, I.T.**  
Dr.J.J. Magdum College  
of Engineering, Jaysingpur.



Dr. J.J. Magdum Trust's  
Dr. J.J. Magdum College of Engineering, Jaysingpur  
Department of Information Technology  
2022-2023

Date: 20/03/2023

## NOTICE

All the teaching & non-teaching staff members of our department are hereby informed that a guest lecture is organized on the topic "Introduction to Python" for SY IT class.

The schedule for the same is mentioned below,

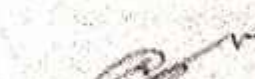
Venue : Classroom 201  
Lecture : Offline Mode  
Day and Date : Monday, 27<sup>th</sup> March 2023  
Time : 10.00am to 12.00 pm  
Resource Person : Mr. V. V. Sutar  
CEO, Vishwa Technologies,  
Wathar

So, everyone should attend the same if he/she is free.



  
Ms. P. R. Desai  
Guest lecture  
Co-ordinator

  
Prof. J.T. Patil  
Academic Coordinator

  
Mr. R. A. Bharatiya  
Head of Department



Dr. J. J. Magdum Trust's  
Dr. J. J. Magdum College Of Engineering,



Dr. J. J. Magdum Trust's  
Dr. J. J. Magdum College of Engineering, Jaysingpur-416101.  
Department of Information Technology  
2022-23

Date: 27/03/2023

To

Mr. V. V. Sutar  
CEO, Vishwa Technologies,  
Wathar

Subject: -Thanking Letter.

Respected Madam,

As per our request you have accepted our invitation as a Resource person for Guest Lecture on "Introduction of Python" on Monday, 27<sup>th</sup> April 2023. You delivered the session very well.

On behalf of Department of Information Technology, we are thankful that you have given your precious time & effective knowledge for final year students through this session.

Thanking you,

Prof. P. R. Desai

Guest Lecture Coordinator

Prof. J. T. Patil

Academic Coordinator

Prof. R. A. Bharatiya

HOD (IT)



Received by  
[Signature]  
17-3-23

Dr. J. J. Magdum Trust's  
 Dr. J. J. Magdum College of Engineering, Jaysingpur-416101.  
 Department of Information Technology  
 2022-23(27/03/2023)  
 Guest Lecture on "Python" (SYIT)

| Roll No | Name of the student   | Sign | Roll No | Name of the student | Sign |
|---------|-----------------------|------|---------|---------------------|------|
| 1       | Bhisham U. Atigale    |      | 36      |                     |      |
| 2       | Saiwardhan Bhasale    |      | 37      | Abhishek S. Magdum  |      |
| 3       | Sahil Bhasale         |      | 38      | Avantika Ajay Mane  |      |
| 4       |                       |      | 39      | Gauri G. Mane       |      |
| 5       | Shikhar S. Chikhalkar |      | 40      |                     |      |
| 6       | Ketan B. Chougale     |      | 41      | Prerana A. Mane     |      |
| 7       | Ajay S. Chougale      |      | 42      | Shraddha Dinkarmore |      |
| 8       |                       |      | 43      |                     |      |
| 9       | Saloni Desai          |      | 44      | Suyog S. Mohite     |      |
| 10      | Shreyash Deshmansh    |      | 45      | Mahadev Nilkarn     |      |
| 11      | Ashwin Divate         |      | 46      | Anshul Nilkarn      |      |
| 12      | Sakshi Y. Domane      |      | 47      |                     |      |
| 13      | Vijay Dudnal          |      | 48      | Aditya B. Patil     |      |
| 14      | Muskan Fakir          |      | 49      | Ajju Patil          |      |
| 15      | Kalyani Gaikwad       |      | 50      |                     |      |
| 16      | Shreyash S. Gaikwad   |      | 51      | Jinendra Patil      |      |
| 17      | Garhan Arjun          |      | 52      | Samriddha C. Patil  |      |
| 18      | Shreyash A. Gajjar    |      | 53      | Samriddha C. Patil  |      |
| 19      | Siddhi D. Guzav       |      | 54      | Samrudh G. Patil    |      |
| 20      | Anjali N. Hongekar    |      | 55      |                     |      |
| 21      | Shantanu Hadwan       |      | 56      | Samrudh Patil       |      |
| 22      |                       |      | 57      | Sanika Patil        |      |
| 23      | Raviraj M. Ingle      |      | 58      |                     |      |
| 24      | Sanket Jadhav         |      | 59      | Asmita Phalle       |      |
| 25      |                       |      | 60      | Pallavi Pooja       |      |
| 26      | Diprakashwar S. Toray |      | 61      | Pantamresh Patil    |      |
| 27      | Sanika Kaji           |      | 62      | Sahel S. Sgadadi    |      |
| 28      | Anshkar Kahl          |      | 63      |                     |      |
| 29      |                       |      | 64      |                     |      |
| 30      |                       |      | 65      | Ankur Shinde        |      |
| 31      |                       |      | 66      | Prathmesh Shinde    |      |
| 32      |                       |      | 67      | Vaishnavi Shinde    |      |
| 33      | Sakshi Kolekar        |      | 68      |                     |      |
| 34      | Bharat Kundekar       |      | 69      | Peardnya S. Vasudev |      |
| 35      |                       |      | 70      | Muskan A. WANKAR    |      |
|         |                       |      | 71      | Chiranjiv M. Yadav  |      |





Dr. J. J. Magdum Trust's (No. E/902)  
**Dr. J. J. Magdum College of Engineering, Jaysingpur.**  
Department of Information Technology  
2022-23



Guest Lecture for SY was held on 27th March 2023




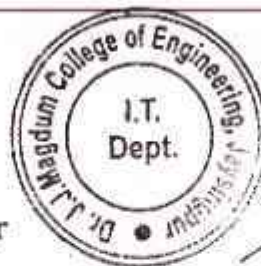


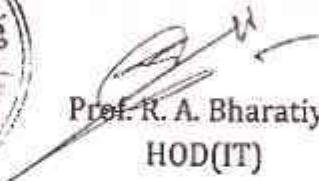
Dr. J.J. Magdum Trust's  
Dr. J.J. Magdum College of Engineering, Jaysingpur  
Department of Information Technology  
2022-23

Students Participation in Technical Events

| Sr.No   | Activities Name                 | Activity Under and Institute | Date       | No. of Students Attended |
|---------|---------------------------------|------------------------------|------------|--------------------------|
| 2022-23 |                                 |                              |            |                          |
| 1       | C and C++programming test       | ITESA, JJM COE               | 15/09/2022 | 108                      |
| 2       | CRACKER 2K22                    | ITESA, JJM COE               | 13/10/2022 | 31                       |
| 3       | Coding Club                     | ITESA, JJM COE               | 21/11/2022 | 125                      |
| 4       | Android Development             | Augmentation, JJM COE        | 12/12/2022 | 47                       |
| 5       | CRACKER'S (2.0) 2K23            | ITESA, JJM COE               | 27/02/2023 | 215                      |
| 6       | A Beginner's guide to Wordpress | Augmentation, JJM COE        | 16/05/2023 | 51                       |

  
Prof. A.G. Chendke  
Augmentation Cell Coordinator



  
Prof. R. A. Bharatiya  
HOD(IT)





Dr. J. J. MAGDUM TRUST'S

Dr. J. J. MAGDUM COLLEGE OF ENGINEERING, JAYSINGPUR.

Accredited with 'A' Grade by NAAC  
Department of Information Technology



This is to certify that, Mr. / Miss. Vaibhavi Gaikwad  
of JJMCOE institute has participated & Secured second  
Rank in the University level technical event Expert under "CRACKERS (2.0) 2K23" held at

Dr. J. J. Magdum College of Engineering, Jaysingpur on 2nd March 2023.



*Pill*

Prof. Miss P. R. Patil  
Caring Club Coordinator

*Chandke*

Prof. Mrs. A. G. Chandke  
ITESA Coordinator

*Bhorstiya*

Prof. Mr. R. A. Bhorstiya  
Head of Department

*Patil*

Dr. Mrs. S. B. Patil  
Principal

*Admutha*

Dr. Mr. S. S. Admutha  
Director

### Tutorial 1

1. Python Set Methods
2. Python Dictionary Methods
3. What is the difference between a list and a tuple?
4. What is the difference between .iloc and .loc?
5. Explain Arithmetic operators with example
6. Explain all string operators with example

### Tutorial 2

- 1) Implement magic function in python
- 2) Implement styles
- 3) Load images

### Tutorial 3

- 1) Implement graph
- 2) plot multiple lines-Legend,title,xlabel,ylabel.plot
- 3) Implement scatter plot, bar plot, histogram,pie chart

### Tutorial 4

Implement Exploratory data analysis on Income or Toyota dataset

Also measure the performance , contingency matrix

### Tutorial 5

- 1) Implement data analysis on Income dataset
- 2) Measure central tendency,percentile,normality, count categorical data,frequency
- 3) Create contingency table



*Shayale*  
subject Incharge

# Subject –Database Engineering Class-TY

## Assignment No 1

- 1) Explain the concept of physical data independence and its importance in database systems.
- 2) What are five main functions of a database administrator?

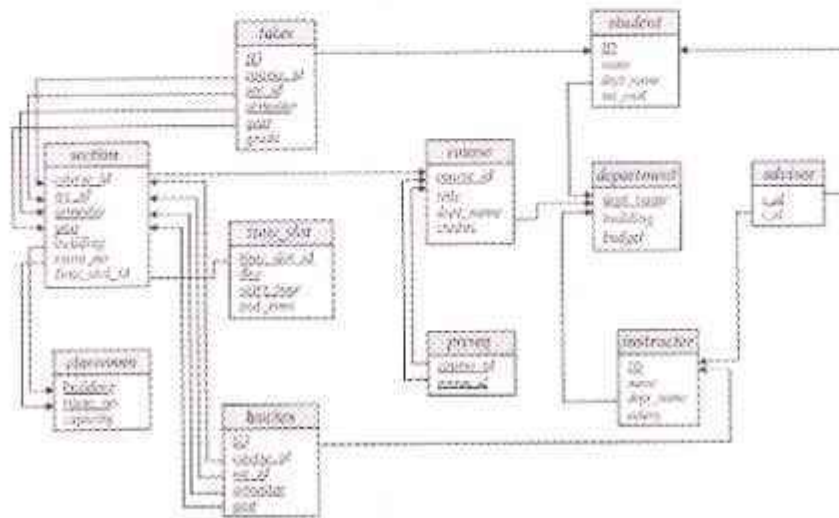


Figure 2.8 Schema diagram for the university database.

- 3) Write schema for above database
- 4) Consider the relational database
  - a. employee (person name, street, city)
  - b. works (person name, company name, salary)
  - c. company (company name, city)

Give an expression in the relational algebra to express each of the following queries:

- a. Find the names of all employees who live in city "Miami".
- b. Find the names of all employees whose salary is greater than \$100,000.
- c. Find the names of all employees who live in "Miami" and whose salary is greater than \$100,000.

- 5) Consider the bank database
  - a. branch(branch name, branch city, assets)
  - b. customer (customer name, customer street, customer city)
  - c. loan (loan number, branch name, amount)
  - d. borrower (customer name, loan number)
  - e. account (account number, branch name, balance)
  - f. depositor (customer name, account number)

Give an expression in the relational algebra for each of the following queries.





Dr. J. J. Magdum Trust's

Dr. J. J. Magdum College of Engineering, Jaysingpur.

Department of Information Technology (22-23)

Assignment (computer Network)  
class: SY

**Unit 1:**

- Explain Hamming code steps.
- Write short note on: checksum, Error control at data link layer
- Which are the Data link layer design issues? Explain any one.
- What is framing. Explain any one framing method in detail.

**Unit 2:**

- Explain with example Go-Back- N protocol
- Discuss selective repeat sliding window protocol with example.
- Enlist the assumptions for Dynamic Channel Allocation. Describe any two of them.
- Explain Selective repeat algorithm with example.

**Unit 3:**

- With neat diagram explain Store- and -Forward Packet Switching.
- Describe Shortest Path Algorithm with example.
- List out Network Layer Design Issues. Explain any one
- Differentiate between virtual circuits and datagram networks.

**Unit 4:**

- Draw & explain IP datagram format.
- Discuss about which problem solved by Network Address Translation (NAT) and how.
- With proper example write about the notations used in IPv4.
- Enlist ICMP Error Reporting Messages. Explain any one of them with format.

**Unit 5:**

- Explain TCP segment format with diagram
- Explain well known ports used by TCP
- Explain Flow control in TCP

**Unit 6:**

- Data Connection in FTP, HTTP Request Message, FTP, DNS, HTTP, Telnet
- Explain Domain name system
- Draw & explain first scenario of electronic mail.



P. R. Desai  
subject Incharge.







ERP



Home | Academic Planning | Course List | Course Dashboard |

**class - sy**

**6** Units    **4** Course Outcome    **8** Learning Outcomes / Unit Outcome    **72** Students

**Computer Network**

Course Code : Not yet updated  
 Course Credits : 0  
 Course Benchmark : Not yet updated  
 Group : SE  
 Fee : 0.00  
 Failer : Desai

**Attendance**

Attendance Report View Session

50  
40  
30  
20  
10  
0

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72

0% 100%

100% No. of present students (All)

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## INVOICE

No.: 2011-12/026  
Date: 13/10/2011

P.O.No.:  
P.O.Date:

To,  
Principal,  
J.J. Magdum Engg College, Jaysingpur

Dr. J. J. Magdum College of Engg.  
Jaysingpur  
Central Library  
Inward/Outward No. 422  
Date: 13/10/11

| Sr.                | Particulars                                                                        | Rate  | Qty. | Amount (Rs.) |
|--------------------|------------------------------------------------------------------------------------|-------|------|--------------|
| 1                  | VidyaSagar - ONLINE Library Software (Dev.Charges + Symbol LS9208 Barcode Scanner) | 45000 | 1    | 45000.00     |
| Total              |                                                                                    |       |      | 45000.00     |
| Other Charges      |                                                                                    |       |      |              |
| Grand Total        |                                                                                    |       |      | 45000.00     |
| Net Payable Amount |                                                                                    |       |      | 45000        |

Package Contents:  
1 Online Software, Symbol LS9208 Barcode Scanner (S/N: M1N59C88C) and  
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- 1 Mode of Payment - Immediately by Cash/DD/Choque payable at Kolhapur
- 2 In case of non-payment within 8 days from the date of this invoice, interest will be charged @24 %p.a. from the date of this invoice
- 3 Email support will be given free for the period of 1 year from the date of this invoice, all other kind of support at extra cost.
- 4 Above charges indicates development charges only. Installation and support, if required will cost extra.
- 5 Any possible upgradation in the supplied software will be charged extra, against 100% payment in advance and suggestions in writing.
- 6 All charges to be paid 100% advance before starting concerned period.
- 7 Software upgradation will take some time depending upon possible requirements
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- 11 Warranty for USB dongle will be 6 months from the date of this invoice.
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IFSC: BKID0000919

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*[Signature]*  
**Librarian**

Dr. J. J. Magdum College of Engineering, Jaysingpur.



# DR. J. J. MAGDUM TRUST'S



## Library Automation

Library has purchased Library Management System Software. The software is bar-code enabled and web based. Library has completed bar-coding on procured reading materials. Daily book circulation has been done by system.

### Details of the software

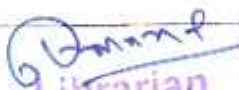
Name of the software – Vidya-Sagar

01. Version -4.2
02. Mobile application facility available
03. Name of the Supplier – Easy and Useful Software's with web Solutions 32, Ashwin Society, Near CentrePoint, Station Road Kolhapur 416001
04. Price of the software – 45,000/-
05. Year of Purchase – 2011-12 – till date it is in working
06. Services on Annual maintenance charges.

Current details the use of software as per given below.

| Sr. No. | Particular                            | Total Number |
|---------|---------------------------------------|--------------|
| 01      | Total No. of Users Enrolled           | 10571        |
| 02      | Total No. of students enrolled (Live) | 1252         |
| 03      | Total No. staff enrolled (Live)       | 184          |
| 04      | Total books entered                   | 47105        |
| 05      | Daily transaction ( DEC 2022)         | 73           |
| 06      | Total No. of titles                   | 12718        |

Librarian

  
Librarian  
Dr. J. J. Magdum College of  
Engineering, Jaysingpur.

Principal



**Dr. J. J. Magdum College of Engineering, Jaysingpur**

Approved by A.I.C.T.E., New Delhi  Recognized by Govt. of Maharashtra (D.T.E.)  Affiliated to SHIVAJI UNIVERSITY, Kolhapur

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Tel. No. (02322) 221825, 221123, Fax No.: (02322) 221831

No. 01

Date: 13-Oct-2023

For: And United IT Solutions  
32, Ashwini Society  
2nd Floor, 1st Cross, Station Road,  
Kudalpur  
E-Mail: [andunitedit@gmail.com](mailto:andunitedit@gmail.com)



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Dr. J. J. Magdum College of  
Engineering, Jaysingpur.



Dr. J. J. Magdum Trust's (No. E/902)



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JJMCOE/113/810/2011-12

DATE 11/08/2011

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THE MANAGER,  
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Nagpur 440015



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Dr. J. J. Magdum Trust's (No. E/902)

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Ref. No. - JJCCE/LIB/907/2011-12/

Date :- 04-08-2011

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Target Exports,  
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**Subject: - Purchase Order for NPTEL IIT Videos**

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| 2                                                                                                                                                                 | <b>Net Price</b><br>(In words- Thirty Five Thousand only) |          |            | 35000/-      |
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| <b>Delivery Terms</b>                                                                                                                                             |                                                           |          |            |              |
| * Data Replaceable on Demand                                                                                                                                      |                                                           |          |            |              |
| * Taxes : Included                                                                                                                                                |                                                           |          |            |              |
| * Delivery schedule : - Immediate after Demo.                                                                                                                     |                                                           |          |            |              |
| * Terms of Payment: - on delivery                                                                                                                                 |                                                           |          |            |              |

This purchase order is issued subject to terms and condition printed overleaf.

*[Signature]*  
Vice Principal / 04/08/11

*[Signature]*  
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Engineering, Jaysingpur.



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Exe. Dir. : (O) : 221828 (R) : 221292  
Principal : (O) : 221829 (Direct)





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|                                                                       | Purchase Order No:<br>JMSOC/LIA/S02/2011-12 | Date:<br>04/08/2011 |

| Particulars                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Rate        | Quantity    | Amount (Rs.)     |                   |             |            |                  |             |            |                        |             |            |                         |             |            |                        |             |            |  |  |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------|------------------|-------------------|-------------|------------|------------------|-------------|------------|------------------------|-------------|------------|-------------------------|-------------|------------|------------------------|-------------|------------|--|--|--|
| Product :- ITVDO<br>IT Video Lecture Series - Engineering Courses.<br>Total approx 1600 Videos                                                                                                                                                                                                                                                                                                                                                                                                        | 35,000      | 1           | 35,00,000        |                   |             |            |                  |             |            |                        |             |            |                         |             |            |                        |             |            |  |  |  |
| <table border="1"> <tr><td>First Year</td><td>12 Subjects</td><td>400 Videos</td></tr> <tr><td>Civil Engineering</td><td>16 Subjects</td><td>600 Videos</td></tr> <tr><td>Computer Science</td><td>19 Subjects</td><td>650 Videos</td></tr> <tr><td>Electrical Engineering</td><td>23 Subjects</td><td>800 Videos</td></tr> <tr><td>Electronics Engineering</td><td>19 Subjects</td><td>800 Videos</td></tr> <tr><td>Mechanical Engineering</td><td>13 Subjects</td><td>700 Videos</td></tr> </table> | First Year  | 12 Subjects | 400 Videos       | Civil Engineering | 16 Subjects | 600 Videos | Computer Science | 19 Subjects | 650 Videos | Electrical Engineering | 23 Subjects | 800 Videos | Electronics Engineering | 19 Subjects | 800 Videos | Mechanical Engineering | 13 Subjects | 700 Videos |  |  |  |
| First Year                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 12 Subjects | 400 Videos  |                  |                   |             |            |                  |             |            |                        |             |            |                         |             |            |                        |             |            |  |  |  |
| Civil Engineering                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 16 Subjects | 600 Videos  |                  |                   |             |            |                  |             |            |                        |             |            |                         |             |            |                        |             |            |  |  |  |
| Computer Science                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 19 Subjects | 650 Videos  |                  |                   |             |            |                  |             |            |                        |             |            |                         |             |            |                        |             |            |  |  |  |
| Electrical Engineering                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 23 Subjects | 800 Videos  |                  |                   |             |            |                  |             |            |                        |             |            |                         |             |            |                        |             |            |  |  |  |
| Electronics Engineering                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 19 Subjects | 800 Videos  |                  |                   |             |            |                  |             |            |                        |             |            |                         |             |            |                        |             |            |  |  |  |
| Mechanical Engineering                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 13 Subjects | 700 Videos  |                  |                   |             |            |                  |             |            |                        |             |            |                         |             |            |                        |             |            |  |  |  |
| Add External USB Hard Disk (1000 GB)                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |             |             |                  |                   |             |            |                  |             |            |                        |             |            |                         |             |            |                        |             |            |  |  |  |
| Add Installation Charges for Out Stationed Locations.                                                                                                                                                                                                                                                                                                                                                                                                                                                 |             |             |                  |                   |             |            |                  |             |            |                        |             |            |                         |             |            |                        |             |            |  |  |  |
| <b>Total</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |             |             | <b>35,00,000</b> |                   |             |            |                  |             |            |                        |             |            |                         |             |            |                        |             |            |  |  |  |

Total in Words: Thirty Five Lakh Thousand Rupees Only

Terms:  
1. The price mentioned above are not inclusive of all taxes.  
2. The installation charges are subject to payment.  
3. The delivery will be done within 15 days after receiving the payment order.  
4. Full Advance payment is required before installation and releasing the registration codes.

5. The registration codes will be released only after receiving the DD.  
**6. DD Should be issued in favor of "Target Explorations" payable at Jaysingpur.**

Contact Person - Manish Jagtap - 9823120245  
mjdens@gmail.com

For Target Explorations  
*(Signature)*  
Librarian  
Dr. J. J. Magdum College of Engineering, Jaysingpur.





Dr. J. J. Magdum Trust's (No. E/902)



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Gate No. 014/130, Sherif-Wadi Road, Agarbhag, JAYSINGPUR - 416 101, Dist. Kolhapur

Ref. No. JMCOE/LLB/807/2011-12/

Date :-04-08-2011



To,  
Target Exports,  
21, Ujwal Society, Narendra Nagar,  
Nagpur-440015

Subject: - Purchase Order for NPTEL IIT Videos

Dear Sir,

With reference to your Quotation & subsequent negotiations with the undersigned, we are pleased to place the order for the following

| Sr. No. | Description of Applications                                | Quantity | Rate (Rs.) | Amount (Rs.) |
|---------|------------------------------------------------------------|----------|------------|--------------|
| 1.      | NPTEL IIT Videos                                           | 01       | 35,000/-   | 35,000/-     |
|         | <b>Net Price:</b><br>(In words- Thirty Five Thousand only) |          |            | 35000/-      |

Material is to be supplied on Door Delivery basis. If you are unable to supply the material within the specified period please inform us well in advance.

- Delivery Terms :-
- \* Date Replaceable on Demand
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- \* Terms of Payment: - on delivery

This purchase order is issued subject to terms and condition printed overleaf.

Librarian

Dr. J. J. Magdum College of Engineering, Jaysingpur.

Vice Principal



Tel No. (02322) 221826, 221827  
Fax No. (02322) 221827  
Email: kor\_jjce@sancharnet.in  
Website: www.jjce.org

Chairman (C) 221825 (R) 228273  
Exe. Dir (O) 221828 (R) 221292  
Principal (O) 221825 (Direct)



**DR. J. J. MAGDUM COLLEGE OF ENGINEERING, JAYSINGPUR.**  
**Late. Mrs. Prabha J. Magdum Central Library**  
**Details of investment Year - wise (2017-2023)**

| SR NO. | YEAR      | Budget Allocated by Institute | Total Cost of Books (in Rs.) | Cost of Journals (In Rs.) (Hard copy) | Cost of e-journals & Database | Total Cost In (Rs) |
|--------|-----------|-------------------------------|------------------------------|---------------------------------------|-------------------------------|--------------------|
| 01     | 2017-18   | 14,58,000.00                  | 358749.00                    | 173065.00                             | 69920.00                      | 561734.00          |
| 02     | 2018-19   | 5,80,000.00                   | 279337.00                    | 180065.00                             | 66390.00                      | 545792.00          |
| 03     | 2019-20   | 5,80,000.00                   | 149268.00                    | 161235.00                             | 71390.00                      | 381893.00          |
| 04     | 2020-21   | 4,50,000.00                   | 00                           | 164885.00                             | 71309.00                      | 236194.00          |
| 05     | 2021-22   | 6,74412.00                    | 17385.00                     | 115028.00                             | 65608.00                      | 198021.00          |
| 06     | 2022-23   | 6,50,000.00                   | 88000.00                     | 112777.00                             | 65608.00                      | 266385.00          |
| 0      | 2023-24   | 600000.00                     | 240847.00                    | 149673.00                             | 70570.00                      | 461090.00          |
|        | total     |                               | 1133586.00                   | 1056728                               | 480795.00                     | 2651109.00         |
|        | upto 2017 |                               | 00                           | 00                                    | 2803828.00                    | 00                 |

*[Signature]*  
Librarian

Pri

7/12/23

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|--------|---------------------------------------------|-----------------------------|-----------------------|
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| 02     | National Digital Library of<br>India (NDLI) | Life Membership             | Library<br>Membership |
| 03     | INFED (Inflibnet Access<br>Federation)      | Life Membership             | Library<br>Membership |

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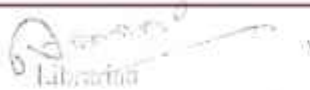
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E-Resources Resources 2023-24

| Sr. No. | Product of e-Resources                 | LOGIN (which is enable to Collage Global I.P.)                                                                   | Journals-books full text /proceedings/Topics/Thesis/ Dissertations                                                                                                                                                                                  | Validity up to                       |
|---------|----------------------------------------|------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| 01      | e-Books                                | <a href="http://www.k-hub.in">www.k-hub.in</a><br>User Name - KB496KOP<br>PASSWORD-<br>%mfWk9FK                  | 5066 e-books, 10333 e-Journals, 194 Videos, 113 Proceedings, 157 e-magazines                                                                                                                                                                        | 21/04/2024                           |
| 02      | DELNET (Developing Library Networking) | <a href="http://delnet.ug.in">http://delnet.ug.in</a><br>User Name - <u>mhdiime</u><br>Password - <u>dj15938</u> | Union catalogue of Books CCF- 2,51,90,300, Periodicals-37,847, Catalogue of Periodicals 20,235, Database of Articles- 9,84,809, engineering & technology e-journals 911. Video Recordings- 6,000, Thesis & Dissertations - 1,02,096 e- books - 1613 | 07/10/2024                           |
| 03      | NDL                                    | National Digital Library                                                                                         | Open Access to all                                                                                                                                                                                                                                  | Life time membership                 |
| 04      | INFED (Shivaji University Kolhapur)    | <a href="http://www.infed.gov.in">www.infed.gov.in</a>                                                           | User Name- ILDRJ1903<br>Password-ILDRJ1903                                                                                                                                                                                                          | Shivaji University Off-Campus Access |

  
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DR.J.J.MAGDUM TRUST'S  
DR.J.J.MAGDUM COLLEGE OF ENGG. JAYSINGPUR  
Late Mrs. Prabha J. Magdum Central Library

**e-Book details**

| SR.NO. | SUBJECT                                | E-BOOKS QUNT. |       |        |
|--------|----------------------------------------|---------------|-------|--------|
|        |                                        | LIB.HAS       | K-HUB | DELNET |
| 01     | Civil Engg.                            | 067           | 1008  | 411    |
| 02     | Construction Management                |               |       |        |
| 03     | Earth Science                          |               |       |        |
| 04     | Arichecture                            |               |       |        |
| 05     | Environmental engg.                    | 086           | 1062  | 205    |
| 06     | Mechanical Engg.                       |               |       |        |
| 07     | Material Sci.                          |               |       |        |
| 08     | Production Engg.                       |               |       |        |
| 09     | Hydraulic Engg.                        |               |       |        |
| 10     | Robotics                               |               |       |        |
| 11     | Energy Engg.                           |               |       |        |
| 12     | Industrial and Management              |               |       |        |
| 13     | Vechicle Transportation                | 35            | 475   | 141    |
| 14     | Electronics Engg.                      |               |       |        |
| 15     | Electrical                             |               |       |        |
| 16     | Control System                         |               |       |        |
| 17     | Telecommunication                      | 30            | 704   | 230    |
| 18     | Neural Network                         |               |       |        |
| 19     | Electrical & Necular Engg.             |               |       |        |
| 20     | Computer science and information Tech. | 122           | 886   | 360    |
| 22     | General Engineering                    | 47            | 661   | 66     |
| 23     | MCA                                    | 000           | 270   | 200    |
|        | Total                                  | 387           | 5066  | 1613   |
|        | <b>TOTAL</b>                           | <b>7066</b>   |       |        |

  
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Library at glance for existing courses

E-BOOKS and E-JOURNALS

Total e-books --- 7066

| List of e-books<br>BRANCH   |     | TITL<br>ES  | TOTAL<br>BOOKS | JOURNALS    |            |
|-----------------------------|-----|-------------|----------------|-------------|------------|
|                             |     |             |                | K-HUB       | DELNET     |
| CIVIL ENGG.                 | U.G | 1000        | 1000           | 1067        | 150        |
|                             | P.G | 486         | 486            | 286         | 79         |
| MECHANICAL ENGG.            | U.G | 1353        | 1353           | 833         | 201        |
| ELECTRONICS &<br>COMM.ENGG. | U.G | 1615        | 1615           | 108         | 70         |
| INFORMATION TECH.           |     | 1000        | 1000           | 140         | 160        |
| COMPUTER.                   |     | 368         | 368            | 619         |            |
| GENERAL ENGG.& other Engg.  |     | 774         | 774            | 913         | 65         |
| MCA                         |     | 470         | 470            | 00          | 00         |
| <b>TOTAL</b>                |     | <b>7066</b> | <b>7066</b>    | <b>3966</b> | <b>725</b> |

Total e-journals - 4691

  
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| Date            | 08/09/2023             |
| Ref. No         | renewal                |
| Ref. Dt         | 01/09/2023             |

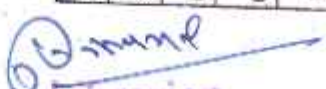
| SI No                                                                 | Journal Name                | SAC CODE | Type | Curr | Subs. Period            | Price + Postage | Conv Rate | Net INR  | Dis On Title   | Final Amt In INR |  |
|-----------------------------------------------------------------------|-----------------------------|----------|------|------|-------------------------|-----------------|-----------|----------|----------------|------------------|--|
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|                                                                       |                             |          |      |      |                         |                 |           |          | GST @ 18%      | 8202.6           |  |
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| Electrical and Nuclear Engineering (70)       | Hydraulic Engineering (44)                   |
| General & Civil Engineering (115)             | Manufacturing (25)                           |
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TAL-SHIROL, DIST.-KOLHAPUR  
(DELNET MEM NO. IM-5938)

The sum of : Indian Rupees Thirteen Thousand Five Hundred Seventy Only

By : DR. J.J. MAGDUM COLLEGE OF ENGINEERING, Federal Bank (India)  
Inter Bank Transfer

Remarks : AMOUNT RECEIVED TOWARDS ANNUAL INSTITUTIONAL MEMBERSHIP  
FEES FOR THE PERIOD 08-10-2023 TO 07-10-2024

16-Oct-23 13,570.00

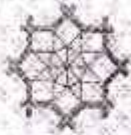
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**Dr. Sangeeta Kaul**  
Director



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E-mail: [sangs@delnet.res.nic.in](mailto:sangs@delnet.res.nic.in)

[sangs@delnet.in](mailto:sangs@delnet.in)

[sangskaul2003@yahoo.co.in](mailto:sangskaul2003@yahoo.co.in)

Web: [www.delnet.in](http://www.delnet.in)

DELNET/AM-5938/mhd/jmce/MEM/2023

November 2, 2023

Sub: DELNET Membership Renewal

Dear Mr. Mane,

We acknowledge with thanks the receipt of ₹ 13,570 (₹ Thirteen Thousand Five Hundred Seventy only) received through NEFT dated 16.10.2023 made towards the DELNET Annual Institutional Membership Fee for the period 3.10.2023 to 3.10.2024. The receipt no. 77033 dated 27.10.2023 is enclosed for the office records.

You are requested to access DELNET databases through the World Wide Web using the following procedure:

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Kindly click onto "New Discovery Portal". Since the IP address provided by you is registered with us, you should be able to open the landing page without login prompt. Please let us know if you encounter any difficulty.

We are also glad to provide the following login & password for accessing DELNET remote:

Login : mhdjmce  
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Kindly note your Inter Library Loan (ILL for Books) Password is "mhdjmcelib" to be used while registering a request. You are also welcome to send us the bibliographical references at [sangs@delnet.res.nic.in](mailto:sangs@delnet.res.nic.in), [sangskaul2003@yahoo.co.in](mailto:sangskaul2003@yahoo.co.in) for the resources needed by you. We will try our best to locate these resources. We would like to inform you that DELNET has launched WEBVIEW Youtube channel which contains a large number of video recordings of Webinars organised by DELNET including sessions on DELNET resources and services. The link is available at the Discovery Portal. We would further like to inform you that Usage Report can be generated through "USAGE STATISTICS" link which appears at the top side of the landing page of the discovery portal. Kindly use the password as 5938\*\*1992 to download the pdf containing usage report of your institution.

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I would also like to inform you that DELNET shall be glad to organise a one hour webinar on DELNET Networked Resources and Services at a mutually convenient date and time for the students, faculty, researchers and scholars of "Dr. J. J. Magdum College of Engineering, Jaysingpur, Maharashtra". It will help in the effective utilisation of DELNET resources and services.

Enc enclosing a poster on DELNET and a Certificate of Membership. Please kindly let us know if you wish to get any books on ILL or the journal articles.

With kind regards,

Yours sincerely,

Sangeeta Kaul

M. D.R. Masu  
Sr. Librarian  
Dr. J. J. Magdum College of Engineering  
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