

# Indore Institute of Science and Technology

## Event Report

Academic Year – 2020-21

Session: Jan to June 2021

Name of Event: Workshop on Art and Science of PCB Design Using Eagle

Date of Event: 18<sup>th</sup> to 24<sup>th</sup> June 2021

Organizing Dept.: ECE Department in association with Pi-Tech

Event Coordinator: Mr. Ankit Jain

Name of Partner / co-organizer (If Industry is involved): Pi-Tech

Address: Piplayarao Saraswati Complex, 1A4, 1st Floor, AB Rd, near. Deendayal Upadhyay Garden, Bhawarkua, Vishnu Puri Colony, Indore, Madhya Pradesh 452001,

Contact No.: 9424029335 Email Id:

Name of Industry Representative: Mr. Ravi Yadav

Contact No.: 9424029335 Email Id:

Name of Expert/Guest: \_\_\_\_\_ Mr. Ravi Yadav \_\_\_\_\_

Institute / Company: \_\_\_\_\_

Designation: \_\_\_\_\_, Department: \_\_\_\_\_

Address: \_\_\_\_\_

Contact No.: \_\_\_\_\_, Email Id: \_\_\_\_\_

### Details of Participants:

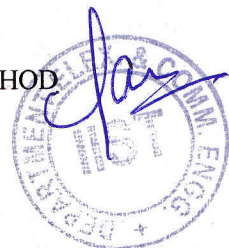
No. of Institutes Participated	No. of Students Participated	Department	No. of Industry Representative	Remark if any
		CSE/IT/EC/ME/CM/ESH		
1	12	ECE	0	

\*Please enclose a detailed list.

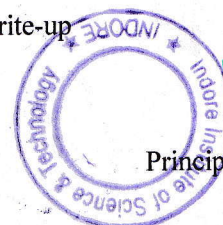
Also enclosed following details:

1. Approval Letter
2. Invitation card/Brochure / Leaflet (if printed by Institute or Organizing Partner) print/Social
3. Detailed summary on event. (Outcome)
4. Media Report (attach copy of newspaper)/ write-up for media/ FB write-up
5. Certificate / Letter (if printed by Institute or Organizing Partner)

HOD



Principal



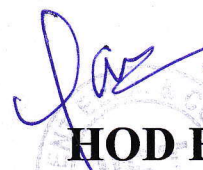
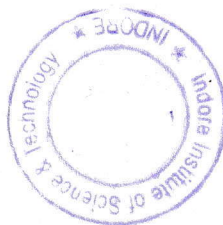
DATE: 15<sup>th</sup> June 2021

## Approval Letter

Department of Electronics & Communication Engineering interested to organize one week workshop on Art and Science of PCB Design with Eagle in association with Pi Tech from 18<sup>th</sup> to 24<sup>th</sup> June 2021 Under Design and Fabrication SIG.

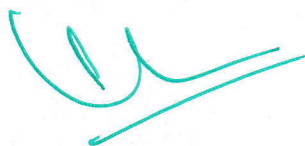
Kindly approve for organizing the workshop in the department.

Proposal enclosed herewith.



**HOD ECE**

A circular purple stamp with the text "Department of Electronics & Communication Engineering" around the perimeter and "IST" in the center.



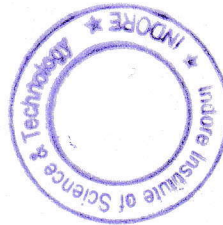
A green handwritten signature.

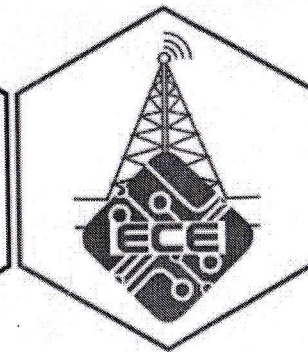
DATE:15/06/2021

## NOTICE

This is to inform you that Department of Electronics & Communication is going to organize workshop on **Art and Science of PCB Design Using Eagle in association with Pi-Tech** from 18<sup>th</sup> to 24<sup>th</sup> June, 2021. All the students of Batch 2018-19 will have to participate actively in this event so that you will get benefits from that event.

So, I invite all the interested Students to attend/participate in the workshop and get the advantages.

**HOD ECE***for*  
Coordinator

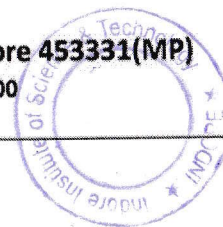
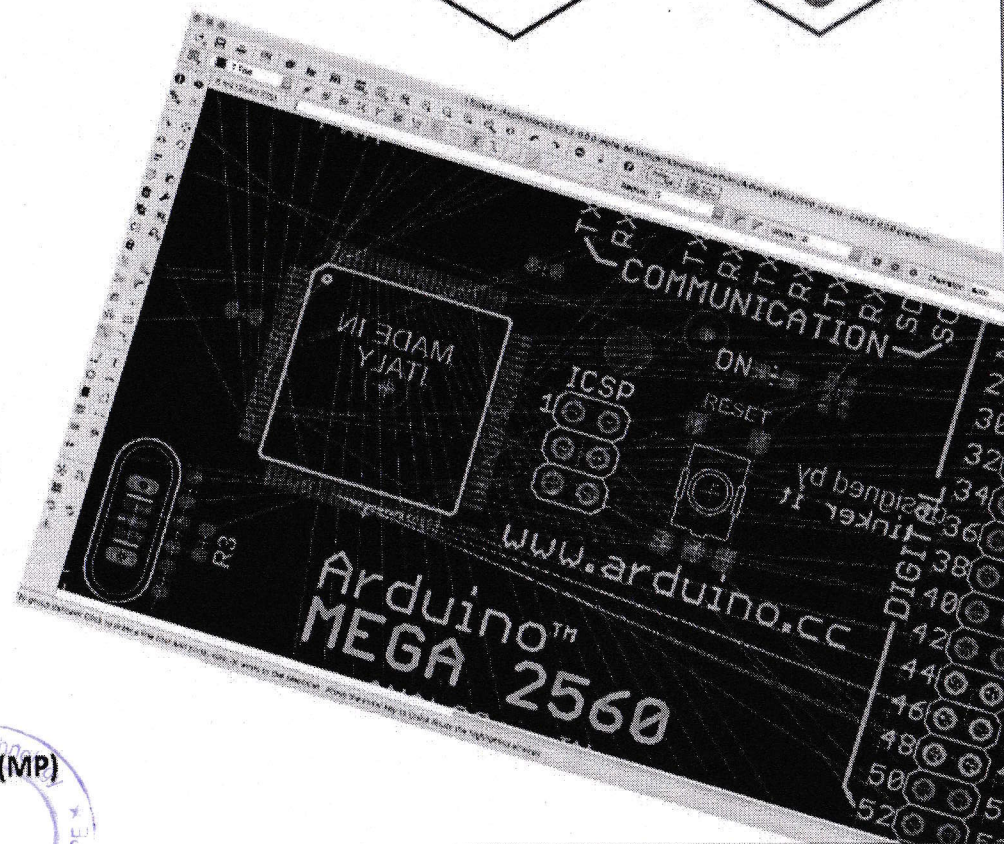


**SIG**  
on  
**Art and Science of  
PCB Design with Eagle**

**20 Hrs training for 6<sup>th</sup> Sem**  
**From: 18-24 Jun 2021 | 10:00am to 1:00pm**

Resource person:  
**Mr. Ravi Yadav**  
**Department of Electronic & Communication Engineering**

IIST Campus, Opp. IIM(Indore), Rau-Pithampur Road, Rau, Indore 453331(MP)  
Toll Free: 1800 103 3069 | 822 507 1000 / 822 407 1000



**WORKSHOP PROGRAM ON**  
**Art & Science Of Pcb Design using Eagle**  
**FOR SESSION JAN-JUNE 2021**

Course Details	
Course Name	Online Internship Program on Art & Science Of Pcb Design using Eagle
Eligible Students for course	ECE, Batch 2018-22
Date	18-24 June 2021
Mode of Internship	Online
Software download link	<a href="https://drive.google.com/file/d/1V XIF -gb2oD-nbr4hlx535F1n4oQqLI/view?usp=sharing">https://drive.google.com/file/d/1V XIF -gb2oD-nbr4hlx535F1n4oQqLI/view?usp=sharing</a>
Hardware Required	NA
If applicable play store link	Google Meet
Pre-requisties	Basics Electronics and Circuit Design
Setup Required	Online/ Workshop/ SIG
Trainer	Mr.Ravi Yadav, Pi Tech

### Course Objective

The objective is to engagae the students in Practical of Pcb Design ,Theroytically pcb Design Aproch ,Deep Details Study & Research on Project Tittle .and Understanding Indusrtly need

### Course Outline

Basic Electronis, Power Supply ,Designing ,Single Side Pcb, Double Sided PCb , multilayer Pcb, Placing Online  
PCB Design & Development ,Soldring Technich, SMD, HL , SOIC, Concepts, Current Trends In Embedded Company  
, Requirements of Various kind of job Profiles

### Course Outcome

Students are able to express their creativity using Pcb Design Their technology.

Students are able to understood Project Work Software

Students are able to Troubleshoot & Analyse the pcb Layout Rules

Students are able to Sound technically fine

Students are able to Deal With Project on Pcb Design Tools

*Jas*  
Coordinator

*Jas*  
HOD, ECE

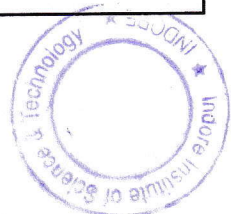
*Jas*  
Resourse Person

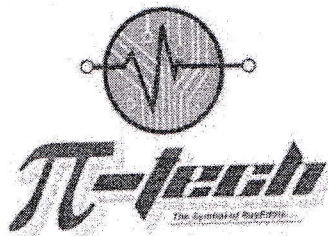
Course Content		
Date	Topic	Resource & Trainer Person
18/06/2021	What Is Pcb, Type Of Pcb , Classification of Pcb , Material Pcb , Selsction of Pcb	Mr. Ravi Yadav
19/06/2021	Intoduction Of Pcb Design Tools , Introduction Of Eagle Software ,tools installation , Downloading	Mr. Ravi Yadav
21/06/2021	Automatic hand senitizer Project Detail study of componatens selection of componants And their pcb design , creating schamatic layout , pcb layout , board layout , understaning of footprint , footprint layout desgining shapping and many more	Mr. Ravi Yadav
22/06/2021	Introduce of Copper Layer , Silk Layer , Componants Layer , pad, lead free pad , copper free pad etc	Mr. Ravi Yadav
23/06/2021	Introduction of Double Sided And single Sided Pcb and defferance Between Them , introduction Of DIP, SMD, Th, Soc ,SOIC Componants and there Selection Footprint ,PCB Design	Mr. Ravi Yadav
24/06/2021	Introction of Ir Sensor , Understanding of Needed Componants , Sizing, Marking , Double Sided Pcb Design , How place online order of mask production , costum product and their design .	Mr. Ravi Yadav

*Jaz*  
Coordinator

*Ravi*  
Resource person

*Jaz*  
HOD, ECE





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REG NO: C/1038302

DATE: Jan 5<sup>th</sup>, 2021

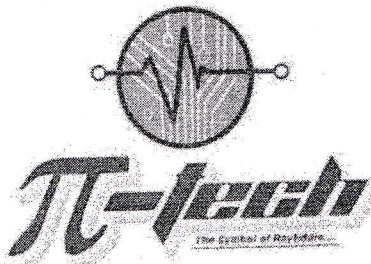
## MEMORANDUM OF UNDERSTANDING (MOU)

BETWEEN



**IIST, INDORE**

&



**Pi-Tech**

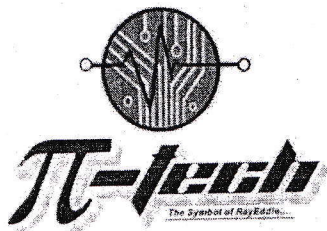
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Colony Indore M.P. 452001





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## MEMORANDUM OF UNDERSTANDING

This **Memorandum of Understanding** (hereinafter called the 'MOU') is entered into on this the 5<sup>th</sup> -January- Two Thousand Twenty-One (5/01/2021).

### BETWEEN

**IIST, INDORE, Rau - Pithampur Rd, Opposite Indian Institute of Management, Rau, Indore, Madhya Pradesh 453331, the First Party** represented herein by its **Principal Dr. Keshav Patidar, Principal IIST** (hereinafter referred as '**First Party**', the institution which expression, unless excluded by or repugnant to the subject or context shall include its successors – in-office, administrators and assigns).

### AND

**Pi-Tech, Piplayarao Saraswati Complex, 104, 1st Floor, AB Rd, near Deendayal Upadhyay Garden, Bhawarkua, Vishnu Puri Colony, Indore, Madhya Pradesh 452001, the Second Party**, and represented herein by its **Founder & CEO Mr. Ravi Yadav, Pi-Tech** (hereinafter referred to as "**Second Party**", company which expression, unless excluded by or repugnant to the subject or context shall include its successors – in-office, administrators and assigns).

(First Party and Second Party are hereinafter jointly referred to as 'Parties' and individually as 'Party')

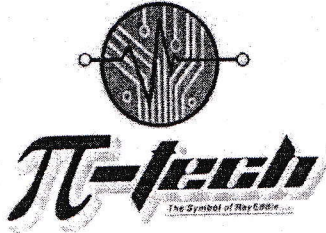
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**WHEREAS:**

- A) First Party is a Higher Educational Institution named:
- (i) **IIST, INDORE**
- B) First Party & Second Party believe that collaboration and co-operation between themselves will promote more effective use of each of their resources, and provide each of them with enhanced opportunities.
- C) The Parties intent to cooperate and focus their efforts on cooperation within area of Skill Based Training, Education and Research.
- D) Both Parties, being legal entities in themselves desire to sign this MOU for advancing their mutual interest;
- E) - **Pi-Tech** - , the Second Party is engaged in Business, Manufacturing, Skill Development, Education and R&D Services in the fields of - **Electronics & Software Project Development, Industrial & Educational Training and Research** - and related fields.
- F) - **Pi-Tech** - ,the Second Party is promoted by **Pi-Tech, Piplayarao Saraswati Complex, 104, 1st Floor, AB Rd, near Deendayal Upadhyay Garden, Bhawarkua, Vishnu Puri Colony, Indore, Madhya Pradesh 452001;**
- G) Give related information, its branches, and dimensional information about the industry concerned with whom the MoU is sworn.

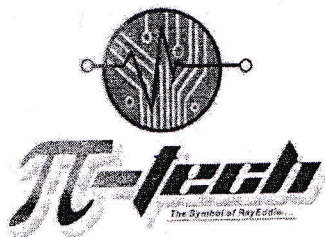
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NOW THEREFORE, IN CONSIDERATION OF THE MUTUAL PROMISES SET FORTH IN THIS MOU, THE PARTIES HERETO AGREE AS FOLLOWS:

#### CLAUSE 1 CO-OPERATION

- 1.1 Both Parties are united by common interests and objectives, and they shall establish channels of communication and co-operation that will promote and advance their respective operations within the **IIST, INDORE** and its related wings. The Parties shall keep each other informed of potential opportunities and shall share all information that may be relevant to secure additional opportunities for one another.
- 1.2 First Party and Second Party co-operation will facilitate effective utilization of the intellectual capabilities of the faculty of First Party providing significant inputs to them in developing suitable teaching / training systems, keeping in mind the needs of the industry, the Second Party.
- 1.3 The general terms of co-operation shall be governed by this MOU. The Parties shall cooperate with each other and shall, as promptly as is reasonably practical, enter into all relevant agreements, deeds and documents (the 'Definitive Documents') as may be required to give effect to the actions contemplated in terms of this MOU. The term of Definitive Documents shall be mutually decided between the Parties.

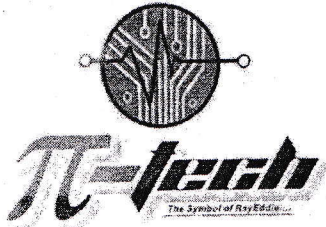
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Along with the Definitive Documents, this MOU shall represent the entire Understanding as to the subject matter hereof and shall supersede any prior understanding between the Parties on the subject matter hereof.

## CLAUSE 2 SCOPE OF THE MoU

- 2.1 The budding graduates from the institutions could play a key role in technological up-gradation, innovation and competitiveness of an industry. Both parties believe that close co-operation between the two would be of major benefit to the student community to enhance their skills and knowledge.
- 2.2 **Curriculum Design:** Second Party will give valuable inputs to the First Party in teaching / training methodology and suitably customize the curriculum so that the students fit into the industrial scenario meaningfully.
- 2.3 **Industrial Training & Visits:** Industry and Institution interaction will give an insight into the latest developments / requirements of the industries; the Second Party to permit the Faculty and Students of the First Party to visit its group companies and also involve in Industrial Training Programs for the First Party. The industrial training and exposure provided to students and faculty through this association will build confidence and prepare the students to have a smooth transition from academic to working career. The Second Party will provide its Labs / Workshops / Industrial Sites for the hands-on training of the learners enrolled with the First Party.

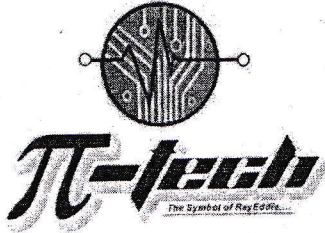
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- 2.4 **Internships and Placement of Students:** Second Party will actively engage to help the delivery of the Internship and placement of students of the First Party into internships/jobs, as per AICTE internship Policy. The Second Party will also register itself on AICTE Internship Policy Portal for disseminating the Internship opportunities available with them.
- 2.5 **Research and Development:** Both Parties have agreed to carry out the joint research activities in the fields of - - - *Electronics & software design and development, Industry & Educational Training and Research* - - .
- 2.6 **Skill Development Programs:** Second Party to train the students of First Party on the emerging technologies in order to bridge the skill gap and make them industry ready.
- 2.7 **Guest Lectures:** Second Party to extend the necessary support to deliver guest lectures to the students of the First Party on the technology trends and in house requirements.
- 2.8 **Faculty Development Programs:** Second Party to train the Faculties of First Party for imparting industrial exposure/ training as per the industrial requirement considering the National Occupational Standards in concerned sector, if available.

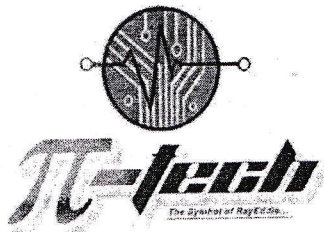
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- 2.9 Both Parties to obtain all internal approvals, consents, permissions, and licenses of whatsoever nature required for offering the Programs on the terms specified herein
- 2.10 There is no financial commitment on the part of the **IIST, INDORE**, and the First Party to take up any program mentioned in the MoU. If there is any financial consideration, it will be dealt separately.

### CLAUSE 3 INTELLECTUAL PROPERTY

- 3.1 Nothing contained in this MOU shall, by express grant, implication, Estoppel or otherwise, create in either Party any right, title, interest, or license in or to the intellectual property (including but not limited to know-how, inventions, patents, copy rights and designs) of the other Party

### CLAUSE 4 VALIDITY

- 4.1 This Agreement will be valid until it is expressly terminated by either Party on mutually agreed terms, during which period **Pi-Tech**, the Second Party, as the case may be, will take effective steps for implementation of this MOU. Any act on the part of **Pi-Tech**, the Second Party after termination of this Agreement by way of communication, correspondence etc., shall not be construed as an extension of this MOU.
- 4.2 Both Parties may terminate this MOU upon 30 calendar days' notice in writing. In the event of Termination, both parties have to discharge their obligations.

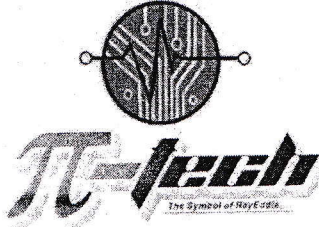
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## CLAUSE 5 RELATIONSHIP BETWEEN THE PARTIES

- 5.1 It is expressly agreed that **IIST, INDORE** and **Pi-Tech** are acting under this MOU as independent contractors, and the relationship established under this MOU shall not be construed as a partnership. Neither Party is authorized to use the other Party's name in any way, to make any representations or create any obligation or liability, expressed or implied, on behalf of the other Party, without the prior written consent of the other Party. Neither Party shall have, nor represent itself as having, any authority under the terms of this MOU to make agreements of any kind in the name of or binding upon the other Party, to pledge the other Party's credit, or to extend credit on behalf of the other Party.

First Party

Second Party

**IIST, INDORE**

**Pi-Tech**

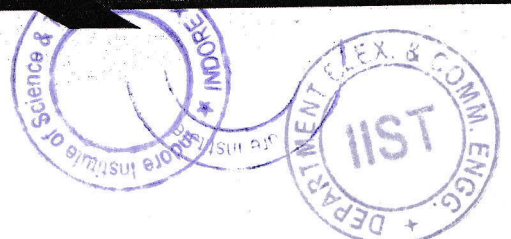
Any divergence or difference derived from the interpretation or application of the MoU shall be resolved by arbitration between the parties as per the Arbitration Act, 1996. The place of the arbitration shall be at District Head Quarters of the First Party. This undertaking is to be construed in accordance with Indian Law with exclusive jurisdiction in the Courts of **Indore**.

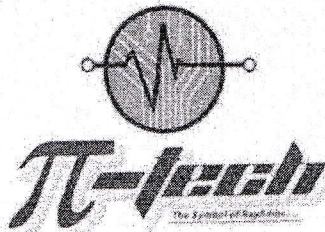
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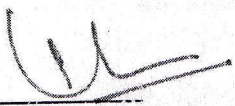



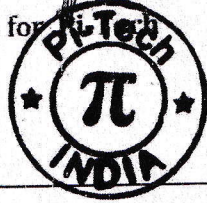


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**AGREED:**

For IIST, INDORE

  
Authorized **Principal**  
Indore Institute of Science  
and Technology, Indore

  
for **Pi-Tech**  
  
Authorized Signatory


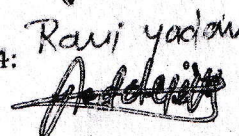
IIST, INDORE	Pi-Tech
Rau - Pithampur Rd, Opposite Indian Institute of Management, Rau, Indore, Madhya Pradesh 453331	Piplayarao Saraswati Complex, 104, 1st Floor, AB Road, Near Deendayal Upadhyay Garden, Bhawarkua, Vishnu Puri Colony, Indore, Madhya Pradesh 452001
08224071000 / 0731 4010520	9424029335
E-mails <i>principal@indoreinstitute.com</i>	info@pitechindia.com, pitechindia@live.com
Web	www.pitechindia.com

Witness1: ANKIT JAIN

Witness2:

  
Witness3: SHRAVAN NANDORI

Witness4:

  
Upendra Singh  
  
Ravi Yadav

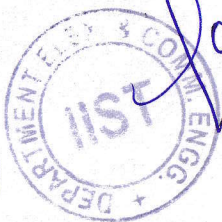
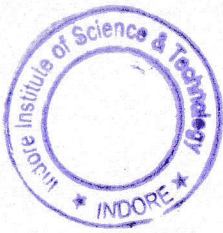
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INDORE INSTITUTE OF SCIENCE AND TECHNOLOGY  
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING  
Workshop Program for Session Jan to Jun 2021  
Workshop on Art and Science of PCBDesign with Eagle  
List of Participate B.Tech Batch 2018-2022

SN	ENROLLMENT	NAME
1	0818EC181001	AARTI NAGAR
2	0818EC181002	ANJALI VERMA
3	0818EC181003	HARSH SWAMI
4	0818EC181004	JAIBHAN SINGH GAUR
5	0818EC181005	KSHANIK RAJAK
6	0818EC181006	MADHAVI JOSHI
7	0818EC181007	NAVEEN THAKUR
8	0818EC181008	PRADEEP PUNJABI
9	0818EC181009	RAKESH LAVVANSI
10	0818EC181010	ROSHAN SANGULE
11	0818EC181011	SWATI BISEN
12	0818EC181012	YASHVEER MISHRA



*for*  
coordinator

*for*  
Resource person

INDORE INSTITUTE OF SCIENCE AND TECHNOLOGY  
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING  
Workshop Program for Session Jan to Jun 2021  
Workshop on Art and Science of PCBDesign with Eagle  
ATTENDANCE SHEET B.Tech Batch 2018-2022

SN	ENROLLMENT	NAME	18-Jun	19-Jun	21-Jun	22-Jun	23-Jun	24-Jun	Average
			Present/ Absent	Present/ Absent	Present/ Absent	Present/ Absent	Present/ Absent	Present/ Absent	
1	0818EC181001	AARTI NAGAR	P	P	P	P	P	A	83
2	0818EC181002	ANJALI VERMA	P	P	A	P	P	P	83
3	0818EC181003	HARSH SWAMI	A	P	P	P	P	P	83
4	0818EC181004	JAIBHAN SINGH GAUR	P	P	P	P	P	P	100
5	0818EC181005	KSHANIK RAJAK	P	P	A	A	P	P	67
6	0818EC181006	MADHAVI JOSHI	P	P	P	P	P	P	100
7	0818EC181007	NAVEEN THAKUR	P	P	P	P	P	P	100
8	0818EC181008	PRADEEP PUNJABI	P	P	P	P	P	A	83
9	0818EC181009	RAKESH LAVVANSHI	P	P	P	P	P	P	100
10	0818EC181010	ROSHAN SANGULE	P	P	P	A	P	P	83
11	0818EC181011	SWATI BISEN	P	A	P	P	P	P	83
12	0818EC181012	YASHVEER MISHRA	P	P	P	P	P	P	100



Resource Person

## Day 1 Recording

<https://classroom.google.com/c/MzY0NzUxMTAyNDU0/p/MzU3NTUxMTQ0MDkx/details>

## Day 2 Recording

<https://classroom.google.com/c/MzY0NzUxMTAyNDU0/p/MzU3NTUxMTQ0MTEx/details>

<https://classroom.google.com/c/MzY0NzUxMTAyNDU0/p/MzU3NTUzNDY3OTgy/details>

## All other days recording

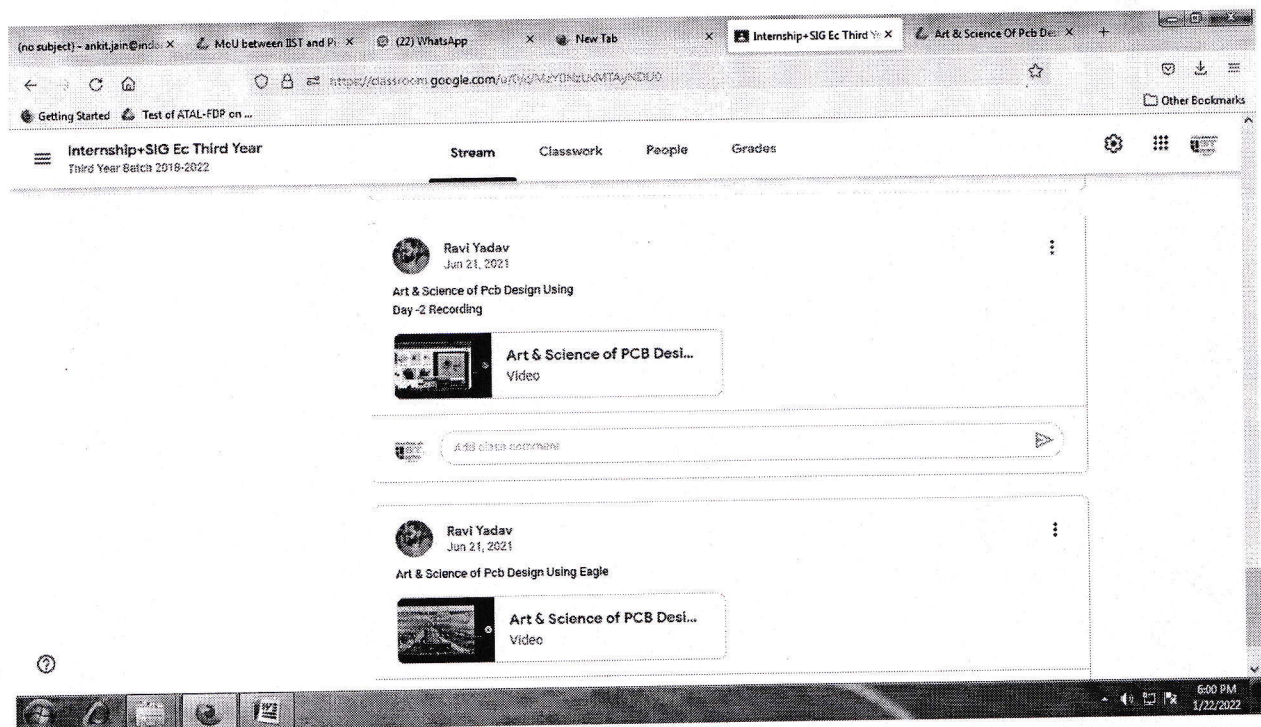
<https://classroom.google.com/c/MzY0NzUxMTAyNDU0/p/MzY2NjYyNDUxMzc1/details>

## SIG Content

<https://classroom.google.com/c/MzY0NzUxMTAyNDU0/p/MzY1NTMzNTcwNTY4/details>

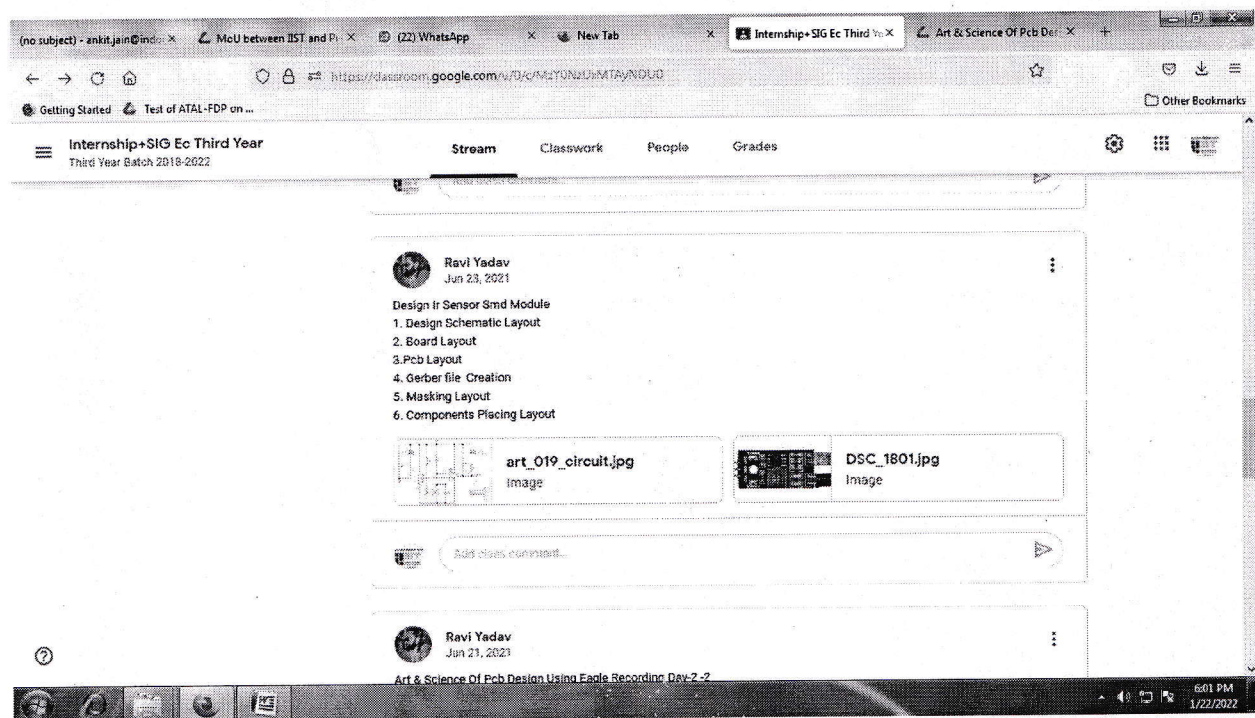
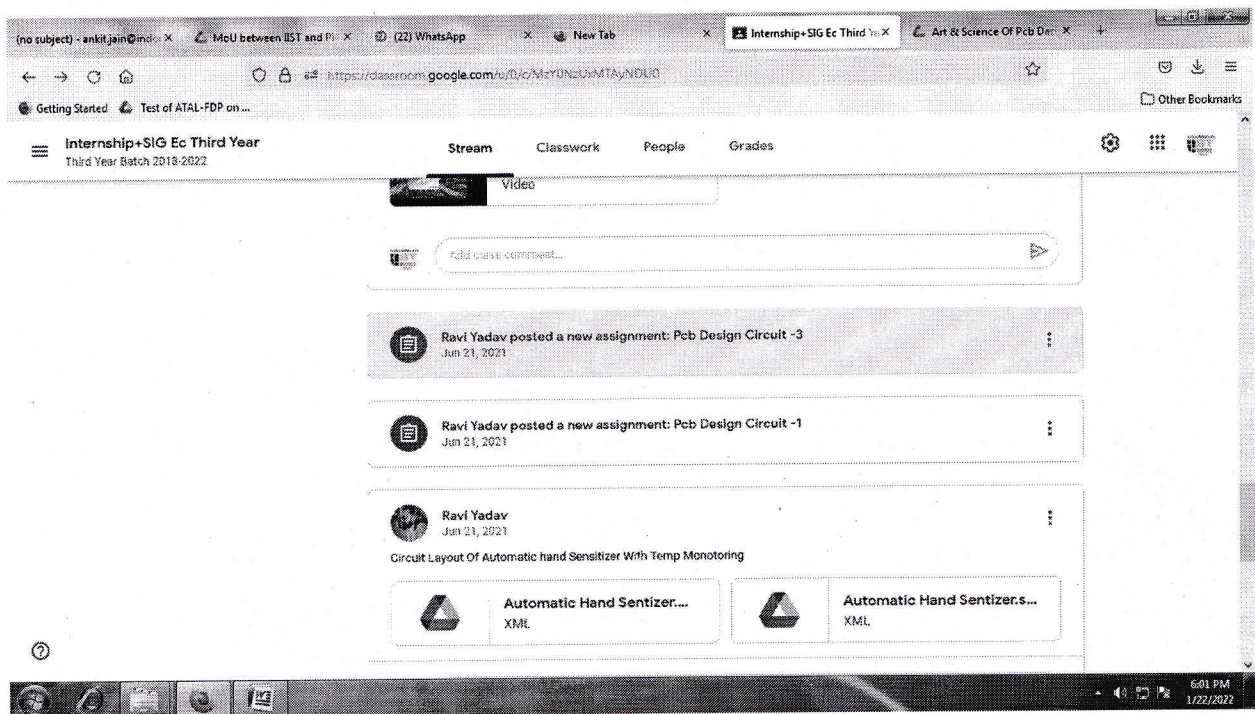
## Circuit Layout Link

<https://classroom.google.com/c/MzY0NzUxMTAyNDU0/p/MzY0NzU0Nzg3MzQ2/details>



*[Signature]*  
HOD, ECE

*[Signature]*  
Coordinator



*Jan*  
HOD, ECE

*Jan*  
Coordinator

Internship+SIG Ec Third Year  
Third Year Batch 2018-2022

Stream Classwork People Grades

Ravi Yadav  
Jan 24, 2021

All Recording of Pcb Design

Art & Science of PCB Desi... Video	Art & Science of PCB Desi... Video
Art & Science of PCB Desi... Text	Art & Science of PCB Desi... Video
Art & Science of PCB Desi... Text	Art & Science of PCB Desi... Text
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[https://drive.google.com/file/d/11Mw5ymwHKwgupspUCElT5Q6kRZmS/view?usp=drive\\_web&authuser=0](https://drive.google.com/file/d/11Mw5ymwHKwgupspUCElT5Q6kRZmS/view?usp=drive_web&authuser=0)

6:01 PM  
1/22/2022

Internship+SIG Ec Third Year  
Third Year Batch 2018-2022

Stream Classwork People Grades

Meet  
Generate link

Class code  
w77st5e

Upcoming  
No work due soon  
View all

Announce something to your class

YASHVEER MISHRA  
Oct 31, 2021

Sig project

GPS\_Tracking\_System.rar  
Compressed Archive

Add class content...

Ravi Yadav  
Jun 24, 2021

Sig Content

Art & Science Of Pcb Desi...  
Excel

6:01 PM  
1/22/2022

*fan*  
HOD, ECE



*fu*  
Coordinator

(no subject) - ankit.jain@indore... | MoU between IST and P... | (22) WhatsApp | New Tab | People in Internship+SIG... | Art & Science Of Pcb Des...

https://classroom.google.com/u/0/y/rMzYQNZUyMTAyNDU0/sort-first-name

Getting Started | Test of ATAL-FDP on ...

Internship+SIG Ec Third Year  
Third Year Batch 2018-2022

Stream | Classwork | **People** | Grades

<input type="checkbox"/>		JAIBHAN GAUR	⋮
<input type="checkbox"/>		KSHANIK RAJAK	⋮
<input type="checkbox"/>		MADHAVI JOSHI	⋮
<input type="checkbox"/>		NAVEEN THAKUR	⋮
<input type="checkbox"/>		PRADEEP PUNJABI	⋮
<input type="checkbox"/>		RAKESH LAVVANISHI (invited)	
<input type="checkbox"/>		ROSHAN SANGULE (invited)	
<input type="checkbox"/>		SWATI BISEN	⋮
<input type="checkbox"/>		YASHVEER MISHRA	⋮

6:02 PM 1/22/2022

(no subject) - ankit.jain@indore... | MoU between IST and P... | (22) WhatsApp | New Tab | Classwork for Internship+SIG... | Art & Science Of Pcb Des...

https://classroom.google.com/u/0/y/rMzYQNZUyMTAyNDU0/t/all

Getting Started | Test of ATAL-FDP on ...

Internship+SIG Ec Third Year  
Third Year Batch 2018-2022

Stream | **Classwork** | People | Grades

+ Create | Google Calendar | Class Drive folder

All topics  
Microcontroller Pcb  
Power Supply

**Microcontroller Pcb**

☐ Pcb Design Circuit -3 Due Jun 23, 2021

**Power Supply**

☐ Pcb Design Circuit -1 Due Jun 25, 2021

6:02 PM 1/22/2022

far  
HOD, ECE

Coordinator

DATE:28/06/2021

Department of Electronics and Communication Engineering Successfully complete workshop on Art and Science of PCB Design using Eagle in association with Pi- Tech from 18<sup>th</sup> to 24<sup>th</sup> June 2021 and 12 students successfully participate in the workshop and the outcome of this event will be:

- Students are able to express their creativity using PCB Design Technology.
- Students are able to understand Project Work Using Eagle Software
- Students are able to Troubleshoot & Analyze the PCB Layout Rules

  
**Coordinator**

  
HOD ECE

  
HOD ECE

# Indore Institute of Science and Technology

## Event Report

Academic Year – 2021-22

Session: Jan to June 2022

Name of Event: Internship cum Training on Embedded System using Virtual Simulation.

Date of Event: 31<sup>st</sup> Jan to 12<sup>th</sup> Feb 2022

Organizing Dept.: ECE Department

Event Coordinator: Mr. Ravi Yadav

Name of Partner / co-organizer (If Industry is involved): Mr. Ravi Yadav

Address:  $\pi$ -tech near Bhawarkua Sq.

Contact No.: 9669330357

Email Id:

Name of Industry Representative:  $\pi$ -tech

Contact No.: 9669330357

Email Id:

Name of Expert/Guest: \_\_\_\_\_

Institute / Company: \_\_\_\_\_

Designation: \_\_\_\_\_, Department: \_\_\_\_\_

Address: \_\_\_\_\_

Contact No.: \_\_\_\_\_, Email Id: \_\_\_\_\_

### Details of Participants:

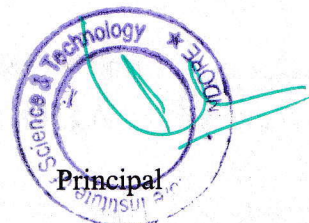
No. of Institutes Participated	No. of Students Participated	Department	No. of Industry Representative	Remark if any
		CSE/IT/EC/ME/CM/ESH		
1	43	ECE	01	

\*Please enclose a detailed list.

Also enclosed following details:

1. Approval Letter
2. Invitation card/Brochure / Leaflet (if printed by Institute or Organizing Partner) print/Social
3. Detailed summary on event. (Outcome)
4. Media Report (attach copy of newspaper)/ write-up for media/ FB write-up
5. Certificate / Letter (if printed by Institute or Organizing Partner)

HOD



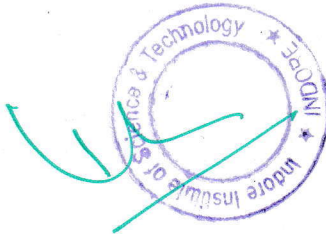
DATE: 20<sup>th</sup> Jan, 2022

# Approval Letter

Department of Electronics & Communication Engineering interested to organize two week Internship cum Training on Embedded System using virtual Simulation (proteus) from 31<sup>th</sup> Jan to 12<sup>th</sup> Feb 2022 under Robotics SIG.

Kindly approve for organizing the Internship cum Training in the department.

Proposal enclosed herewith.

  
**HOD ECE**

DATE: 24<sup>th</sup> Jan, 2022

# NOTICE

This is to inform you that Department of Electronics & Communication is going to organize Internship cum Training on Embedded System using virtual Simulation (proteus) conducted by IIST EC Department from 31<sup>th</sup> Jan to 12<sup>th</sup> Feb 2022. All the students of III Year and IV Year will have to participate actively in this event so that you will get benefits from that event. The event will be held online from 10:00AM to 02:00PM.

## Faculty Coordinators:

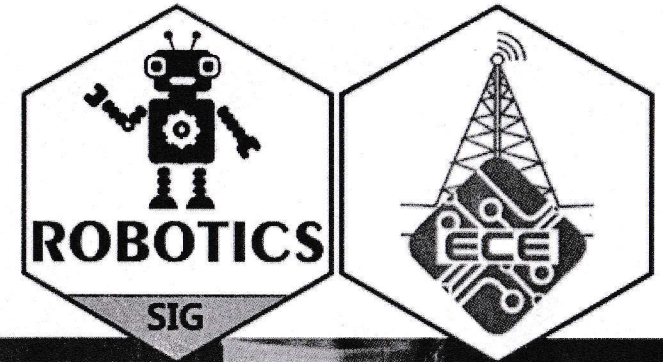
a) Mr. Ravi Yadav



So, I invite all the interested Students to attend/participate in the workshop and get the advantages.

HOD ECE





Department of Electronics & Communication

# Internship cum Training on Embedded system using Virtual Simulation(Proteus)

In Association with



for III & IV year

From: 31 Jan - 12 Feb, 2022

10:00am to 02.00pm

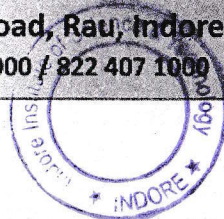
H.O.D.  
Mr. Ankit Jain

Resource Person  
Mr. Ravi Yadav

IIST Campus, Opp. IIM(Indore), Rau-Pithampur Road, Rau, Indore 453331(MP)

Toll Free: 1800 103 3069 | 822 507 1000 | 822 407 1000

COORDINATOR  
*[Signature]*



**ONLINE INTERNSHIP CUM TRAINING PROGRAM**  
**Embedded System Using Virtual Simulation (Proteus)**  
**FOR SESSION JAN-JUNE 2022**

### **Course Details**

<b>Course Name</b>	Online Internship Cum Training Program on Embedded System Using Virtual Simulation (Proteus)
<b>Eligible Students for course</b>	ECE,III & IV Year -2022
<b>Date</b>	31, Jan 2022 - 12, Feb 2022
<b>Mode of Internship</b>	<b>ONLINE</b>
<b>Proteus Software Download Link</b>	<a href="https://drive.google.com/file/d/1xtEqMsbroPuCy3DCMivv9TETtDp5mtZI/view?usp=sharing">https://drive.google.com/file/d/1xtEqMsbroPuCy3DCMivv9TETtDp5mtZI/view?usp=sharing</a>
<b>Keil Software download link</b>	<a href="https://drive.google.com/file/d/1pA15xG tR-Bv3eIAAUfBgPzSLCQq5kX/view?usp=sharing">https://drive.google.com/file/d/1pA15xG tR-Bv3eIAAUfBgPzSLCQq5kX/view?usp=sharing</a>
<b>Hardware Required</b>	NA
<b>If applicable play store link</b>	Google Meet (Application Download By Google Play Store)
<b>Pre-requisties</b>	Basics Electronics , Circuit Design, C Programming, Basics Of Simulation And Microcontroller .
<b>Setup Required</b>	Online SIG (Computer, Audio,Video,Internet)
<b>Assessment of Course</b>	In the end Quiz test will be conducted & Project Circuit Design Submission (Simulation Softcopy)
<b>Certificate Criteria</b>	Minimum 50 % in end quiz test with 80 % attendance in all session.
<b>Trainer</b>	Mr. Ravi Yadav

### **Course Objective**

The objective is to engagae the students in Practical of 8051 Microcontroller ,Theroytically Embedded System & Interfacing Aproch ,Deep Details Study & Research on Internship Tittle and Understanding Indusrty need.

### **Course Outline**

Basic Electronis, Assembly language, Embedded C Programming,Understaing Of Core Embedded System, Industrial Application Of Embedded System,8051 Microcontroller,Pin Programming, Port Programming, Peripheral Interfacing , Use of Proteus Simulation Software.Etc

Memory ,Ram , Led, Switch,Sensor, Motor,Lcd, Seven Segment,Keypad,Relay,Serial Communication,Timer

### **Course Outcome**

Students are able to express their creativity using Assembly & Embedded C .

Students are able to understood Project Work Simulation Using Virtual Software ,

Students are able to Troubleshoot about Embedded System Application's

Students are able to Sound technically fine in Embedded System on 8051 Platform

Students are able to Deal With Project Development Process .



<b>Course Content</b>		
<b>Date</b>	<b>Topic</b>	<b>Resource &amp; Trainer Person</b>
31/01/2022	Introduction of Embedded System & Real time Embedded System, Detail Study of Embedded System Application	Mr. Ravi Yadav
01/02/2022	Introduction of Microprocessor Unit (MPU), MCU for microcontroller unit ,Introduction to 8051,Introduction to KEIL $\mu$ Vision IDE,	Mr. Ravi Yadav
02/02/2022	Introduction of Simulation , Type of Simulation , Intorduction of Different Simulation Software, Introduction of Proteus Software & Installation	Mr. Ravi Yadav
03/02/2022	Inside 8051,GPIO (General Purpose Input Output), Program Counter, Stack Pointer,Linker,SPSR,CPSR,Port Programming,Pin Programming	Mr. Ravi Yadav
04/02/2022	MCU & MPU programming language, Introduction of Assembly language, Use of Assembly language,Introduction Core Embedded C language. Importance of Embedded C language, Different Between Embedded C & Open Source Embedded C.	Mr. Ravi Yadav
07/02/2022	Introduction LED ,Type of LED, Working of LED,Application of Led,Industrial Use Of Led ,use Of Led in Consumer Electronics, future Scope of Led World, Interfacing of Led, Different Pattern of Led.and Project	Mr. Ravi Yadav
08/02/2022	Introduction Switch, Type of Switch , Industrial Grad of Switches, Application of Switches,Interfacing of Switches,Counter System Switches,Switche & Led Interfacing , Multiple switch Interfacing.and Project	Mr. Ravi Yadav
08/02/2022	Introduction Keypad Matrix , Type of Keypad Matrix , Industrial Grad of Keypad Matrix , Application of Keypad Matrix ,Interfacing of Keypad Matrix ,Password System .and Project .	Mr. Ravi Yadav
09/02/2022	Introduction Sensor, Type of Sensor , Industrial Grad of Sensor, Application of Sensor,Interfacing of Sensor,Counter System Sensor, Sensor & Led Interfacing , Multiple Sensor Interfacing.	Mr. Ravi Yadav



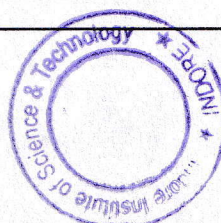
10/02/2022	Introduction LCD, Type of LCD , Industrial Grad of LCD, Application of LCD,Interfacing of LCD,Text Display On LCD and Project	Mr. Ravi Yadav
11/02/2022	Introduction Motor & Motor Driver, Type of Motor & Motor Driver, Industrial Grad of Motor & Motor Driver, Application of Motor,Interfacing of Motor,Direction Control Of Motor , Motor ,Switch,Sensor Interfacing and Project	Mr. Ravi Yadav
12/02/2022	Introduction of Relay & Relay Driver, Type of Relay & Relay Driver, Industrial Grad of Relay & Relay Driver, Industrial Application of Relay,Interfacing of Relay, Controlling of AC/DC Devices and Project	Mr. Ravi Yadav
12/02/2022	Introduction Seven Segment , Type of Seven Segment , Industrial Grad of Seven Segment , Industrial Application of Seven Segment,Interfacing of Seven Segment, Timer Using Seven Segment. and Project	Mr. Ravi Yadav
12/02/2022	Timer/ Counter,Serial communication (UART) and Project	Mr. Ravi Yadav



INDORE INSTITUTE OF SCIENCE AND TECHNOLOGY  
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING  
Internship cum Training for Session Jan to Jun 2022  
Internship cum Training on Embedded System using Virtual Simulation (Proteus)  
List of Participate B.Tech Batch 2018-2022 & 2019-2023

SN	ENROLLMENT	NAME
1	0818EC181001	AARTI NAGAR
2	0818EC181002	ANJALI VERMA
3	0818EC181003	HARSH SWAMI
4	0818EC181004	JAIBHAN SINGH GAUR
5	0818EC181005	KSHANIK RAJAK
6	0818EC181006	MADHAVI JOSHI
7	0818EC181007	NAVEEN THAKUR
8	0818EC181008	PRADEEP PUNJABI
9	0818EC181009	RAKESH LAVVANSI
10	0818EC181010	ROSHAN SANGULE
11	0818EC181011	SWATI BISEN
12	0818EC181012	YASHVEER MISHRA
13	0818CM191004	AMAN RATHORE
14	0818EC191001	AAYUSH SHARMA
15	0818EC191002	AAYUSHI GURJAR
16	0818EC191003	ABHAY SINGH LODHI
17	0818EC191004	ABHISHEK
18	0818EC191005	ABHISHEK PATIDAR
19	0818EC191006	ABHISHEK SHARMA
20	0818EC191007	ADITYA MEDATWAL
21	0818EC191008	AKSHAY TIWARI
22	0818EC191010	ANJALI SHARMA
23	0818EC191011	ANUJ PRATAP SINGH BHADORIYA
24	0818EC191012	ANUJKARMA
25	0818EC191013	ARPIT KUMAR SARATHE
26	0818EC191014	BHARAT
27	0818EC191015	CHETAN
28	0818EC191016	DEEPAK SURYAWANSHI
29	0818EC191018	GOURAV PATIDAR
30	0818EC191019	HARSH
31	0818EC191020	HIMANSHU SAJANKAR
32	0818EC191021	JAIDEV YADAV
33	0818EC191022	JAYA CHANDRAVANSHI
34	0818EC191023	LIPIKA DEBNATH
35	0818EC191024	NURENDRA MALVI
36	0818EC191025	PRANSHU SINGH
37	0818EC191026	RAHUL ALATRE
38	0818EC191027	ROHIT KUMAR
39	0818EC191028	ROSHANI SEN
40	0818EC191029	SANDESH KALE
41	0818EC191030	TANISHA CHAWADA
42	0818EC191031	TEJASVI MATHANKAR
43	0818EC203D01	ALKA YADAV

COORDINATOR  
*[Signature]*



# INDORE INSTITUTE OF SCIENCE AND TECHNOLOGY

## ELECTRONICS AND COMMUNICATION DEPARTMENT

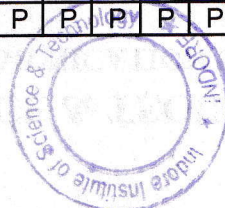
Internship cum Training on Embedded system using virtual simulation

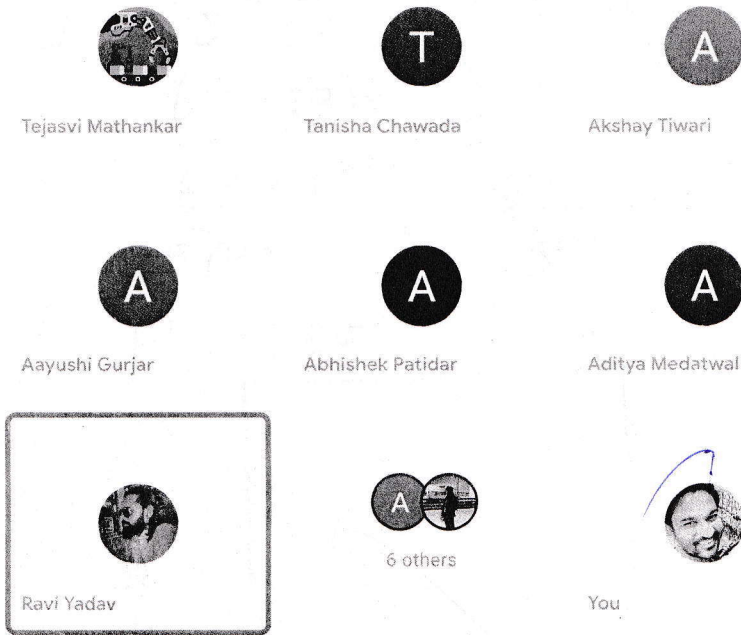
Duration 31 Jan 2022 to 15 Feb 2022

			Jan-Feb-2022												
S.N	NAME	Roll No.	31	1	2	3	4	7	8	9	10	11	14	15	
1	AMAN RATHORE	0818CM191004	P		P	P	P		P	P	P	P	P	P	
2	AAYUSH SHARMA	0818EC191001	P		P		P	P	P	P	P	P	P	P	
3	AAYUSHI GURJAR	0818EC191002	P	P	P	P	P	P	P	P	P	P	P	P	
4	ABHAY SINGH LODHI	0818EC191003		P	P	P	P	P	P	P	P	P			
5	ABHISHEK KHATIK	0818EC191004	P	P		P	P	P	P	P	P	P		P	
6	ABHISHEK PATIDAR	0818EC191005	P	P	P	P		P	P	P	P		P	P	
7	ABHISHEK SHARMA	0818EC191006	P	P	P	P	P	P	P		P	P	P	P	
8	ADITYA MEDATWAL	0818EC191007	P	P	P	P	P	P	P	P	P	P	P	P	
9	AKSHAY TIWARI	0818EC191008	P	P	P	P	P	P	P	P	P		P	P	
11	ANJALI SHARMA	0818EC191010	P	P	P	P	P	P	P	P	P		P	P	
12	ANUJ BHADORIYA	0818EC191011	P	P	P	P	P	P		P	P	P		P	
13	ANUJ KARMA	0818EC191012	P		P	P	P	P	P	P	P	P	P		
14	ARPIT KUMAR SARATHE	0818EC191013	P	P	P	P	P	P	P	P	P	P	P	P	
15	BHARAT YADAV	0818EC191014	P	P		P	P	P	P	P	P	P		P	
16	CHETAN PATEL	0818EC191015	P	P	P	P	P	P	P	P	P	P	P	P	
17	DEEPAK SURYAWANSHI	0818EC191016	P	P	P	p	P	p	P	P		P	P	P	
18	GOURAV PATIDAR	0818EC191018		P	P	P	P	P	P	P	P	P	P		
19	HARSH DEWDA	0818EC191019	P	P	P	P	P	P	P	P	P	P			
20	HIMANSHU SAJANKAR	0818EC191020	P	P	P	P	P	P	P	P	P		P	P	
21	JAIDEV YADAV	0818EC191021		P	P	P	P	P	P	P	P	P	P		
22	JAYA CHANDRAVANSHI	0818EC191022	P	P	P	P	P	P	P	P	P	P			
23	LIPIKA DEBNATH	0818EC191023	P	P		P	P	P	P	P		P	P	P	
24	NURENDRA MALVI	0818EC191024	P	P		P	P	P	P	P		P	P	P	
25	PRANSHU SINGH	0818EC191025	P	P	P	P	P	P	P	P	P	P	P	P	
26	RAHUL ALATRE	0818EC191026	P	P	P	p	P	p			P	P		P	
27	ROHIT KUMAR	0818EC191027	P	P	P		P		P		P	P	P	P	
28	ROSHANI SEN	0818EC191028		P	P	P	P	P	P	P	P	P	P		
29	SANDESH KALE	0818EC191029	P	P	P	P	P	P	P	P	P	P	P	P	
30	TANISHA CHAWADA	0818EC191030		P	P	P		P	P	P	P		P	P	
31	TEJASVI MATHANKAR	0818EC191031	P	P		P	P	P	P	P	P		P	P	
32	ALKA YADAV	0818EC203D01		P	P	P	P	P	P			P	P	P	

Final

1	AARTI NAGAR	0818EC181001	P		P	P	P	P	P	P	P	P	P	P	
2	ANJALI VERMA	0818EC181002	P	P	P	p	P	P	P	P				P	P
3	HARSH SWAMI	0818EC181003		P	P	P	P			P	P	P	P	P	P
4	JAIBHAN SINGH GAUR	0818EC181004	P	P	P	P	P			P	P	P	P	P	P
5	KSHANIK RAJAK	0818EC181005	P	P	P	p			P	P	P	P	P	P	P
6	MADHAVI JOSHI	0818EC181006	P	P	P	P			P	P	P	P	P	P	P
7	NAVEEN THAKUR	0818EC181007		P	P	P	P	P	P	P	P	P	P	P	
8	PRADEEP PUNJABI	0818EC181008	P				P	P	P	P	P	P	P	P	P
9	RAKESH LAVVANSHI	0818EC181009			P	P	P	P			P	P	P	P	P
10	ROSHAN SANGULE	0818EC181010			P	P	P	P	P		P	P	P	P	P
11	SWATI BISEN	0818EC181011	P	P	P	P	P	P			P	P	P	P	P
12	YASHVEER MISHRA	0818EC181012	P	P	P	P	P	P	P	P	P	P	P	P	





## People



+ Add people

Search for people

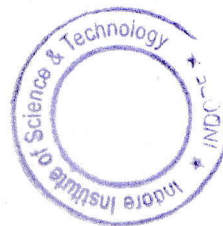
## In call

	Raju Singh Dawer (You)		
	Aayushi Gurjar		
	Abhishek Patidar		
	Aditya Medatwal		
	Akshay Tiwari		
	Aman Rathore		
	Anuj Karma		
	Chetan Patel		
	Madhavi Joshi		
	Rahul Alatre		
	Ravi Yadav Meeting host		
	Sandesh Kale		
	Tanisha Chawada		
	Tejasvi Mathankar		



COORDINATOR

*[Handwritten signature]*



REC



Aditya Medatwal



Tanisha Chawada



Abhishek Sharma



Ravi Yadav



Rohit kumar



Abhishek Patidar



Anuj Karma



10 others



You

## People



+ Add people

Search for people

## In call



Raju Singh Dawer (You)



Abhishek Patidar



Abhishek Sharma



Aditya Medatwal



Akshay Tiwari



alka yadav



alka yadav



Aman Rathore



Anjali Sharma



Anuj Karma



Chetan Patel



Pranshu Singh



Rahul Alatre

Ravi Yadav  
Meeting host

Rohit kumar



Sandesh Kale



Tanisha Chawada



Tejasvi Mathankar



12:11 PM | hdh-...

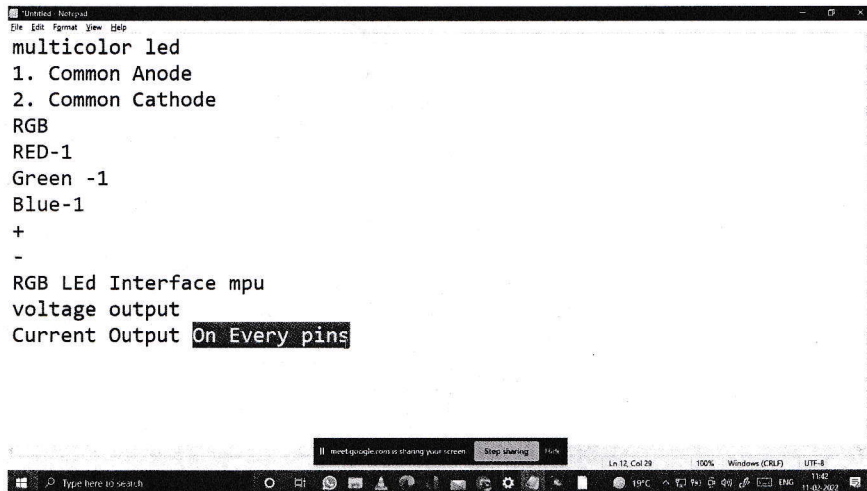


COORDINATOR





Ravi Yadav is presenting



Ravi Yadav



Rahul Alatre



14 others



You

## People



Add people

 Search for people

## In call



































































	Raju Singh Dawer (You)		
	Aayushi Gurjar		
	Abhishek Sharma		
	Aditya Medatwal		
	Anuj Karma		
	Anuj pratap singh Bhadoriya		
	Arpit kumar sarathe		
	Chetan Patel		
	Deepak Suryawanshi		
	Madhavi Joshi		
	Pranshu Singh		
	Pranshu Singh		
	Rahul Alatre		
	Ravi Yadav Meeting host		
	Ravi Yadav Presentation		
	Rohit kumar		
	Sandesh Kale		
	SWATI BISEN		

Tejasvi

COORDINATOR

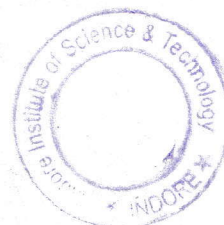


2/10/22

	Sandesh Kale (You)		
	Aayushi Gurjar		
	Abhishek Sharma		
	Aditya Medatwal		
	Akshay Tiwari		
	Aman Rathore		
	Anjali Sharma		
	Anuj Karma		
	Anuj pratap singh Bhadoriya		
	Arpit kumar sarathi		
	Chetan Patel		
	Himanshu Sajankar		
	Madhavi Joshi		
	Pranshu Singh		
	Pranshu Singh		
	Rahul Alotra		
	Ravi Yadav		
	Meeting host		
	Presentation		
	Rohit kumar		
	SWATI BISEN		
	Tanisha Chowada		



COORDINATOR



REC

People

22

X

Add people



In call

D Deepak Rathore (You)



A Aayushi Gurjar



A Aditya Medatwal



A Akshay Tiwari



A Aman Rathore



A Anjali Sharma



a anjali Verma



A Anuj Karma



A Anuj pratap singh Bhador...



A Arpit kumar sarathe



C Chetan Patel



Deepak Suryawanshi



H Himanshu Sajankar



L Lipika Debnath



Madhavi Joshi



N Nurendra Malvi

Ravi Yadav  
Meeting hostRavi Yadav  
Presentation

Sandesh Kale



S SWATI BISEN



T Tanisha Chawada



t tejasvee mathankar

N  
Nurendra MalviA  
Anjali SharmaC  
Chetan PatelT  
Tanisha ChawadaA  
Aayushi Gurjart  
tejasvee mathankar

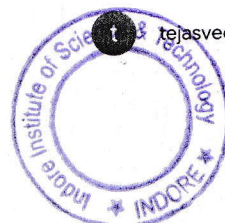
14 others

D  
You

11:40 AM | aei...



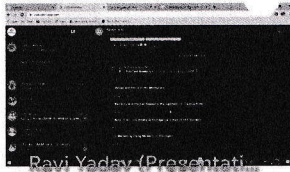
COORDINATOR



REC

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Nurendra Malvi



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Chetan Patel

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tejasvee mathankar



14 others

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You

People

22

X

Add people

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Tanisha Chawada



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tejasvee mathankar



A

Anjali Sharma



C

Chetan Patel



In call

D

Deepak Rathore (You)



A

Aayushi Gurjar



A

Aditya Medatwal



A

Akshay Tiwari



A

Aman Rathore



A

Anjali Sharma



a

anjali Verma



A

Anuj Karma



A

Anuj pratap singh Bhador...



A

Arpit kumar sarathe



C

Chetan Patel



D

Deepak Suryawanshi



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Himanshu Sajankar



L

Lipika Debnath



+

Madhavi Joshi



N

Nurendra Malvi



11:39 AM | aei-...

CC

COORDINATOR

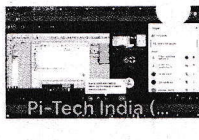
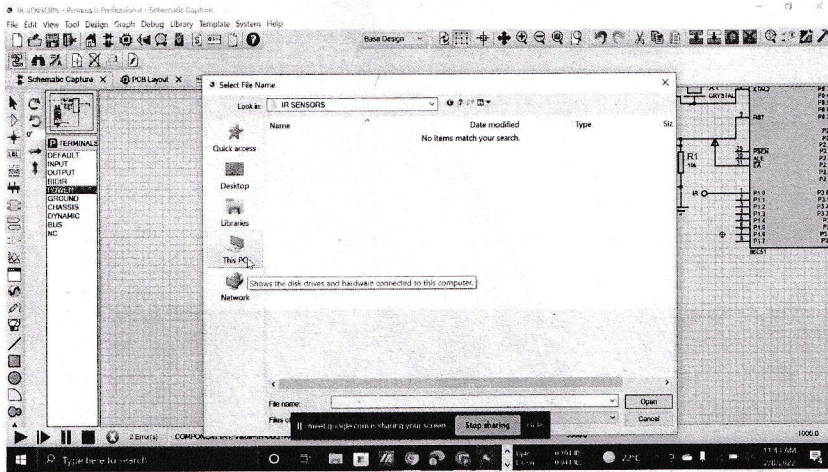
<https://meet.google.com/aei-oavd-svs?pli=1>


REC

Pranshu Singh is presenting

People

X



24 others

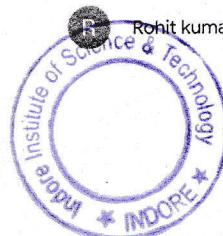


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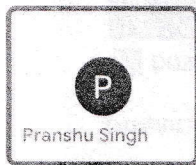
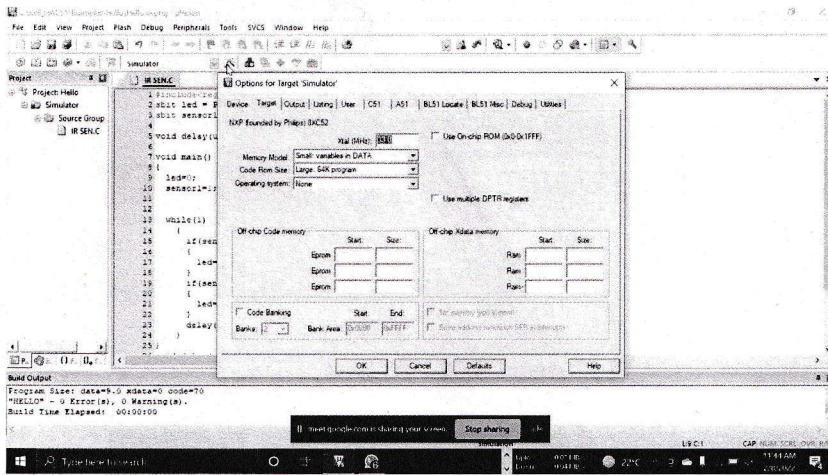
- | Profile | Name                       | Microphone | Video |
|---------|----------------------------|------------|-------|
|         | Raju Singh Dawer (You)     |            |       |
|         | Aayushi Gurjar             |            |       |
|         | Abhishek Patidar           |            |       |
|         | Abhishek Sharma            |            |       |
|         | Aditya Medatwal            |            |       |
|         | Akshay Tiwari              |            |       |
|         | alka yadav                 |            |       |
|         | Aman Rathore               |            |       |
|         | Anjali Sharma              |            |       |
|         | anjali Verma               |            |       |
|         | Anuj Karma                 |            |       |
|         | Arpit kumar sarathe        |            |       |
|         | Chetan Patel               |            |       |
|         | Deepak Suryawanshi         |            |       |
|         | Himanshu Sajankar          |            |       |
|         | Lipika Debnath             |            |       |
|         | Madhavi Joshi              |            |       |
|         | Nurendra Malvi             |            |       |
|         | Pi-Tech India Meeting host |            |       |
|         | Pi-Tech India Presentation |            |       |
|         | Pranshu Singh              |            |       |
|         | Pranshu Singh Presentation |            |       |
|         | Pranshu Singh              |            |       |
|         | Rohit kumar                |            |       |

11:43 AM | sm...

COORDINATOR



REC Pranshu Singh is presenting



24 others



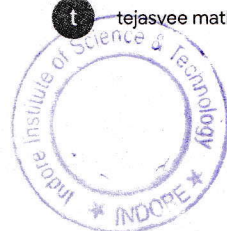
You

## People



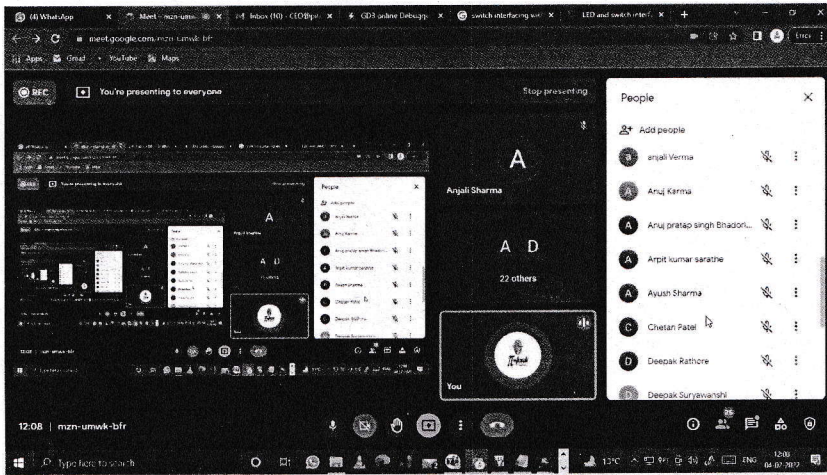
- |          |                            |  |  |
|----------|----------------------------|--|--|
| <b>A</b> | Aditya Medatwal            |  |  |
| <b>A</b> | Akshay Tiwari              |  |  |
| <b>a</b> | alka yadav                 |  |  |
| <b>A</b> | Aman Rathore               |  |  |
| <b>A</b> | Anjali Sharma              |  |  |
| <b>a</b> | anjali Verma               |  |  |
| <b>A</b> | Anuj Karma                 |  |  |
| <b>A</b> | Arpit kumar sarathe        |  |  |
| <b>C</b> | Chetan Patel               |  |  |
| <b>D</b> | Deepak Suryawanshi         |  |  |
| <b>H</b> | Himanshu Sajankar          |  |  |
| <b>L</b> | Lipika Debnath             |  |  |
|          | Madhavi Joshi              |  |  |
| <b>N</b> | Nurendra Malvi             |  |  |
|          | Pi-Tech India Meeting host |  |  |
|          | Pi-Tech India Presentation |  |  |
| <b>P</b> | Pranshu Singh              |  |  |
| <b>P</b> | Pranshu Singh Presentation |  |  |
| <b>P</b> | Pranshu Singh              |  |  |
| <b>R</b> | Rohit kumar                |  |  |
|          | Sandesh Kale               |  |  |
| <b>S</b> | SWATI BISEN                |  |  |
| <b>T</b> | Tanisha Chawada            |  |  |
| <b>t</b> | tejasvee mathankar         |  |  |

11:44 AM | smh...



REC

Pi-Tech India is presenting



Deepak Suryaw...

21 others

You

## People

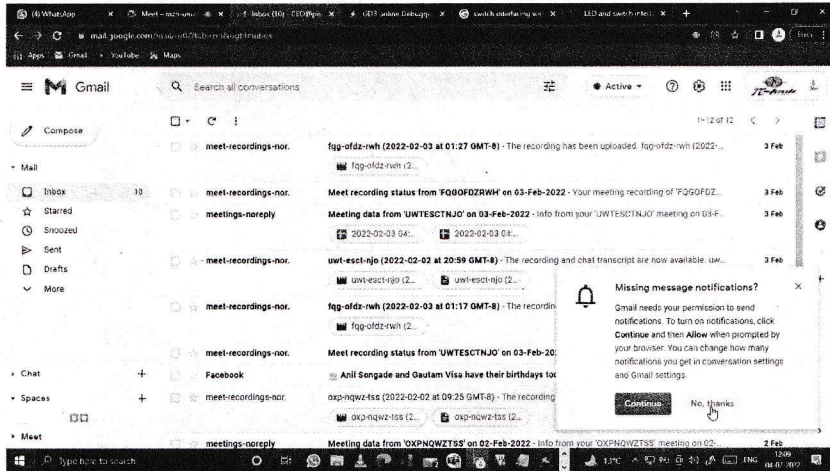


- D** Deepak Rathore (You)
- A** Aayushi Gurjar
- A** Abhishek Sharma
- A** Aditya Medatwal
- A** Akshay Tiwari
- a** alka yadav
- a** alka yadav
- A** Aman Rathore
- A** Anjali Sharma
- a** anjali Verma
- A** Anuj Karma
- A** Anuj pratap singh Bhadori...
- A** Arpit kumar sarathe
- A** Ayush Sharma
- C** Chetan Patel
- D** Deepak Suryawanshi
- H** Himanshu Sajankar
- Pi-Tech India Meeting host
- Pi-Tech India Presentation
- P** Pranshu Singh
- P** Pranshu Singh
- R** Rahul Alatre
- R** Rohit kumar

12:08 PM | mzn...



REC Pi-Tech India is presenting



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Participants:


- Pi-Tech India
- Deepak Suryaw...
- 21 others
- You

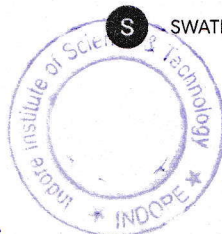
## People



- |   |                              |                |     |
|---|------------------------------|----------------|-----|
| A | Aayushi Gurjar               | <del>4/5</del> | ... |
| A | Abhishek Sharma              | <del>4/5</del> | ... |
| A | Aditya Medatwal              | <del>4/5</del> | ... |
| A | Akshay Tiwari                | <del>4/5</del> | ... |
| a | alka yadav                   | <del>4/5</del> | ... |
| a | alka yadav                   | <del>4/5</del> | ... |
| A | Aman Rathore                 | <del>4/5</del> | ... |
| A | Anjali Sharma                | <del>4/5</del> | ... |
| a | anjali Verma                 | <del>4/5</del> | ... |
| A | Anuj Karma                   | <del>4/5</del> | ... |
| A | Anuj pratap singh Bhadori... | <del>4/5</del> | ... |
| A | Arpit kumar sarathe          | <del>4/5</del> | ... |
| A | Ayush Sharma                 | <del>4/5</del> | ... |
| C | Chetan Patel                 | <del>4/5</del> | ... |
| D | Deepak Suryawanshi           | <del>4/5</del> | ... |
| H | Himanshu Sajankar            | <del>4/5</del> | ... |
|   | Pi-Tech India Meeting host   | <del>4/5</del> | ... |
|   | Pi-Tech India Presentation   | <del>4/5</del> | ... |
| P | Pranshu Singh                | <del>4/5</del> | ... |
| P | Pranshu Singh                | <del>4/5</del> | ... |
| R | Rahul Alatre                 | <del>4/5</del> | ... |
| R | Rohit kumar                  | <del>4/5</del> | ... |
|   | Sandesh Kale                 | <del>4/5</del> | ... |
| S | SWATI BISEN                  | <del>4/5</del> | ... |

12:09 PM | mzn...

  
COORDINATOR



REC

H

Himanshu Sajankar

D

Deepak Suryawanshi

M

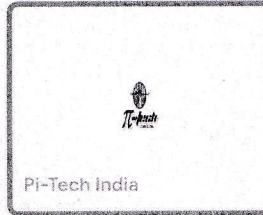
MADHAVI JOSHI

a

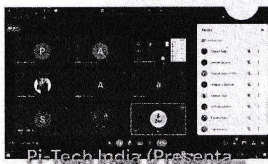
alka yadav

A

Anuj Karma



Pi-Tech India



Pi-Tech India (Presentation)

A A

18 others

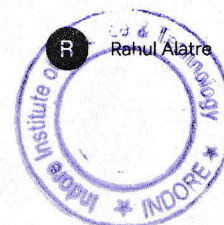
D

You

## People

X

D	Deepak Rathore (You)		
A	Aayushi Gurjar		⋮
A	Abhishek Patidar		⋮
A	Abhishek Sharma		⋮
A	Aditya Medatwal		⋮
A	Akshay Tiwari		⋮
a	alka yadav		⋮
a	alka yadav		⋮
A	Anjali Sharma		⋮
a	anjali Verma		⋮
A	Anuj Karma		⋮
A	Anuj pratap singh Bhadori...		⋮
A	Arpit kumar sarathe		⋮
A	Ayush Sharma		⋮
C	Chetan Patel		⋮
D	Deepak Suryawanshi		⋮
H	Himanshu Sajankar		⋮
	Kshanik Rajak		⋮
M	MADHAVI JOSHI		⋮
	Pi-Tech India Meeting host		⋮
	Pi-Tech India Presentation		⋮
P	Pranshu Singh		⋮
P	Pranshu Singh		⋮



11:56 AM | uwf...

CC

A handwritten signature in blue ink.

COORDINATOR

REC



Himanshu Sajankar



Deepak Suryawanshi



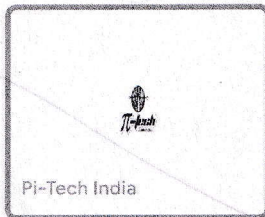
MADHAVI JOSHI



alka yadav



Chetan Patel



Pi-Tech India



Pi-Tech India (Presentation)



18 others



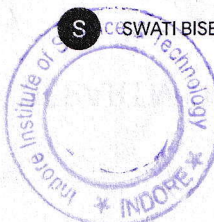
You

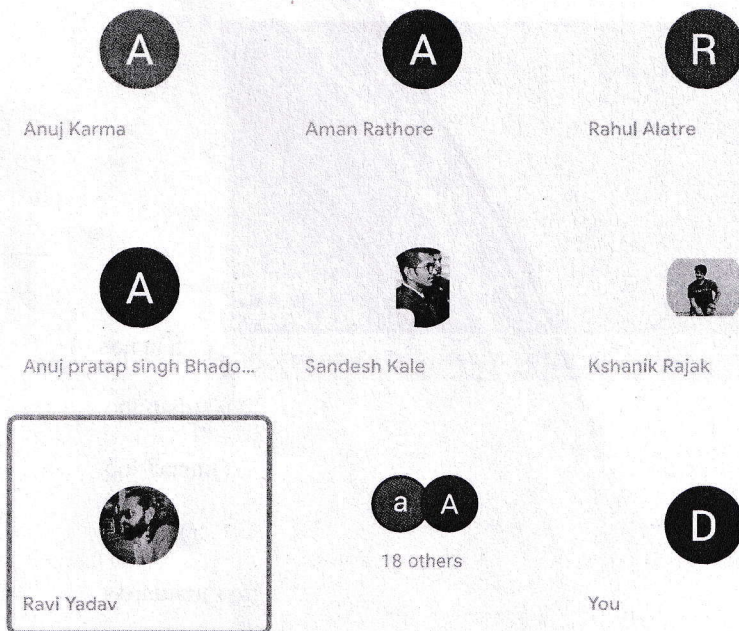
People



- Abhishek Patidar
- Abhishek Sharma
- Aditya Medatwal
- Akshay Tiwari
- alka yadav
- alka yadav
- Anjali Sharma
- anjali Verma
- Anuj Karma
- Anuj pratap singh Bhadori...
- Arpit kumar sarathe
- Ayush Sharma
- Chetan Patel
- Deepak Suryawanshi
- Himanshu Sajankar
- Kshanik Rajak
- MADHAVI JOSHI
- Pi-Tech India Meeting host
- Pi-Tech India Presentation
- Pranshu Singh
- Pranshu Singh
- Rahul Alatre
- Sandesh Kale
- SCSWATI BISEN

*[Signature]*  
COORDINATOR





## People



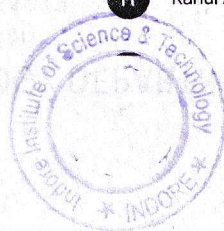
Add people

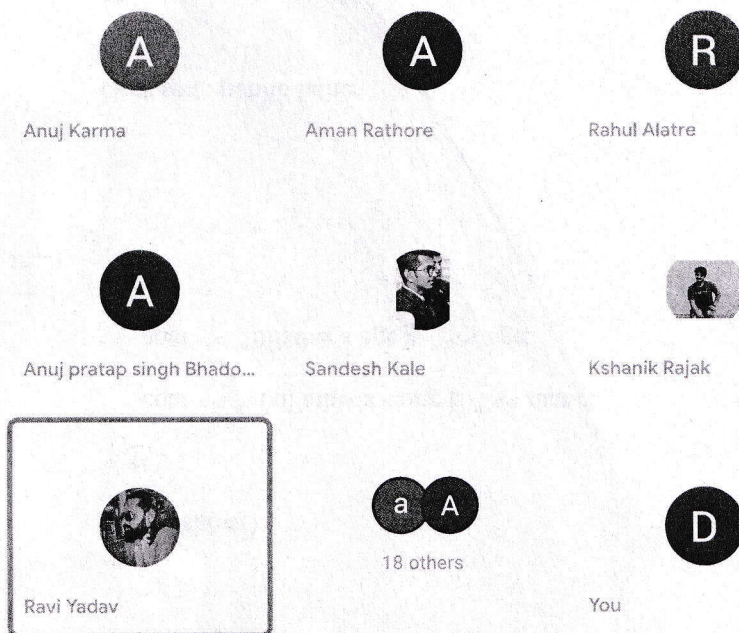
Search for people

## In call

Deepak Rathore (You)		
Aayushi Gurjar		
Abhishek Patidar		
Abhishek Sharma		
Aditya Medatwal		
Akshay Tiwari		
alka yadav		
alka yadav		
Aman Rathore		
Anjali Sharma		
anjali Verma		
Anuj Karma		
Anuj pratap singh Bhadori...		
Arpit kumar sarathe		
Chetan Patel		
Deepak Suryawanshi		
Harsh Swami		
Himanshu Sajankar		
Kshanik Rajak		
Madhavi Joshi		
Rahul Alatre		

COORDINATOR



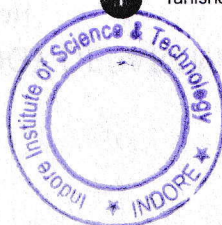


## People



Add people

	Abhishek Sharma		
	Aditya Medatwal		
	Akshay Tiwari		
	alka yadav		
	alka yadav		
	Aman Rathore		
	Anjali Sharma		
	anjali Verma		
	Anuj Karma		
	Anuj pratap singh Bhadori...		
	Arpit kumar sarathe		
	Chetan Patel		
	Deepak Suryawanshi		
	Harsh Swami		
	Himanshu Sajankar		
	Kshanik Rajak		
	Madhavi Joshi		
	Rahul Alatre		
	Ravi Yadav Meeting host		
	Rohit kumar		
	Sandesh Kale		
	SWATI BISEN		
	Tanisha Chawada		



00:00:34

Participant Panel



## Participants (28/30)



- RY Ravi Yadav (Host)
- AG Aayushi Gurjar (...)
- AK ABHISHEK KHA...
- AP Abhishek Patid...
- AS Abhishek Sharma
- AI Aditya (Guest)
- AT Akshay Tiwari (...)
- AY Alka Yadav (Gu...
- AS Anjali Sharma
- AV Anjali Verma (G...
- AP Anuj Pratap Sin...
- AS Arpit kumar sar...
- BI Bharat (Guest)
- CI Chetan (Guest)
- DR Deepak Ra... (Me)
- DS DEEPAK SURY...
- HS Himanshu Saja...
- KR Kshanik Rajak (...)
- LD Lipika Debnath
- MI Madhavi (Guest)
- NM Nurendra Malvi ...
- PS Pranshu Singh (...)
- RA Rahul Alatre
- RK Rohit kumar (G...
- SK Sandesh Kale (...)
- SB Swati Bisen (Gu...
- TC Tanisha Chawa...
- TM Tejasvi Mathan...

## Reset value of 8051

Register	Reset Value
PC	0000
ACC	0000
B	0000
PSW	0000
SP	0007
DPTR	0000

RAM are all zero.

Ravi Yadav

Abhishek Sharm

RO

Audience (0/1000)

Rohi  
st)

Unmute

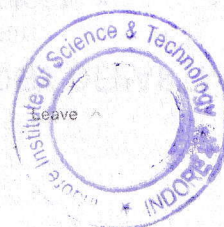
Start Video

Participants 28

Chat

Raise Hand

COORDINATOR



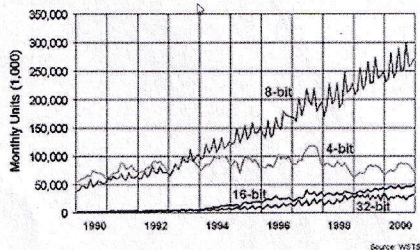


Ravi Yadav is presenting

## Processor Sales Data

### Microprocessor Unit Sales

All types, all markets worldwide



Introduction to Embedded Systems

INTRODUCTION TO EMBEDDED SYSTEMS



Ravi Yadav



Abhishek S...



28 others



You

## People



Add people



Abhishek Sharma



In call



Deepak Rathore (You)



Aarti Nagar



Aayushi Gurjar



Abhishek Khatik



Abhishek Patidar



Abhishek Sharma



Aditya Medatwal



Akshay Tiwari



Aman Rathore



Anjali Sharma



anjali Verma



Anuj Karma



Anuj pratap singh Bhadori...



Arpit kumar sarathe



Ayush Sharma



Bharat yadav



Chetan Patel



Deepak Suryawanshi



Himanshu Sajankar



Kshanik Rajak



Lipika Debnath



COORDINATOR



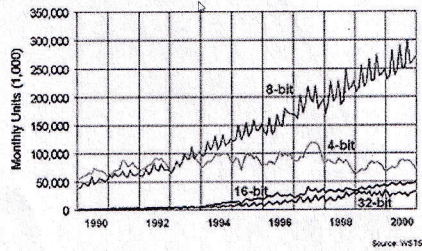


Ravi Yadav is presenting

## Processor Sales Data

### Microprocessor Unit Sales

All types, all markets worldwide



Introduction to Embedded Systems

INTRODUCTION TO EMBEDDED SYSTEMS



Ravi Yadav



Abhishek S...



28 others



You

## People

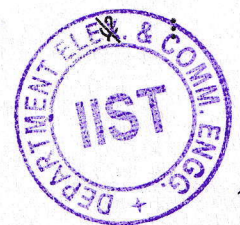
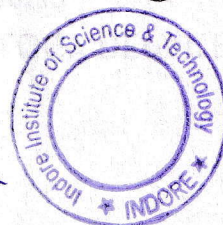


+ Add people

- |  |                              |  |   |
|--|------------------------------|--|---|
|  | Anjali Sharma                |  | ⋮ |
|  | anjali Verma                 |  | ⋮ |
|  | Anuj Karma                   |  | ⋮ |
|  | Anuj pratap singh Bhadori... |  | ⋮ |
|  | Arpit kumar sarathe          |  | ⋮ |
|  | Ayush Sharma                 |  | ⋮ |
|  | Bharat yadav                 |  | ⋮ |
|  | Chetan Patel                 |  | ⋮ |
|  | Deepak Suryawanshi           |  | ⋮ |
|  | Himanshu Sajankar            |  | ⋮ |
|  | Kshanik Rajak                |  | ⋮ |
|  | Lipika Debnath               |  | ⋮ |
|  | Madhavi Joshi                |  | ⋮ |
|  | Nurendra Malvi               |  | ⋮ |
|  | PRADEEP PUNJABI              |  | ⋮ |
|  | Pranshu Singh                |  | ⋮ |
|  | Rahul Alatre                 |  | ⋮ |
|  | Ravi Yadav<br>Meeting host   |  | ⋮ |
|  | Ravi Yadav<br>Presentation   |  | ⋮ |
|  | Rohit kumar                  |  | ⋮ |
|  | Sandesh Kale                 |  | ⋮ |
|  | SWATI BISEN                  |  | ⋮ |
|  | Tejasvi Mathankar            |  | ⋮ |

11:28 AM | hk...

COORDINATOR





Internship / Special Interest Group Jan-2022

EC III &amp; IV Year



Instructions

Student work

## Explain the Bellow Topic In Details

linker

assembler

accumulator

compiler

interpreter

translator

machine code

program counter

stack pointer

CPSR

SPSR

⋮

Ravi Yadav • Jan 31

100 points

Due Feb 2, 11:59 PM

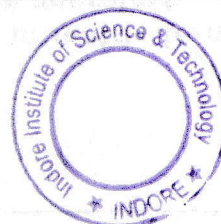
Submit In Softcopy Of work  
with 8051 Example



Class comments



Add class comment...



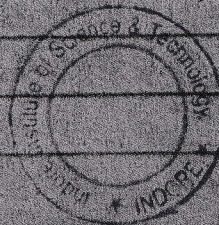


1. **Linker :-** A linker or link editor is a computer system program that takes one or more object files (generated by a compiler or an assembler) and combines them into a single executable file, library file or another "object file".
2. **Assembler :-** An assembler is a program that takes basic computer instructions and converts them into a pattern of bits that the computer's processor can use to perform its basic operations. Some people call these instructions assembly language and others use the term assembly language.
3. **Accumulator :-** An accumulator is a register for short-term, intermediate storage of arithmetic and logic data in a computer's CPU. In an arithmetic operation involving two operands, one operand has to be in this register.
4. **Compiler :-** Compiler, computer software that translates (compiles) source code written in a high-level language (e.g. C++) into a set of machine-language instructions that can be understood by a digital computer's CPU.
5. **Interpreter :-** An interpreter is a computer program that directly executes instructions written in a programming or scripting language, without requiring them previously to have been compiled into a machine language program.



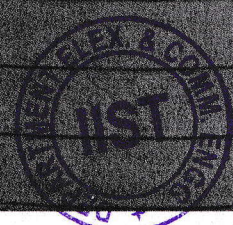


6. **Translator :-** A translator is a programming language processor that converts a computer program from one language to another. It takes a program written in source code and converts it into machine code. It discovers & identifies the error during translation.
7. **Machine code :-** In programming, machine code is any low-level programming language, consisting of machine language instructions, which are used to control CPU. It is read by computer's CPU, is composed of digital binary numbers & looks like a very long sequence of zeros & ones.
8. **Program counter :-** A program counter is a CPU register in the computer processor which has the address of the next instruction to be executed from memory. It is a digital counter needed for faster execution of tasks as well as for tracking the current execution point.
9. **Stack pointer :-** A stack pointer is a small register that stores the address of the last program request in a stack. A stack is a specialized buffer which stores data from the top down. The most recently entered request always resides at the top of the stack.
10. **CPSR :-** ARM v6/v7 maintains a status register called the CPSR (current program status register) that holds four status bits, negative (N), zero (Z), carry (C), & overflow (O). These bits can be used for conditional execution of subsequent instructions.





11. SPSR :- A saved Program Status Register (SPSR) stores the current value of the CPSR when an exception is taken so that the CPSR can be restored after handling the exception. Each exception handling mode can access its own SPSR.





Instructions

Student work

# Write the of addition using Assembly language For 8051 in Keil Software

Ravi Yadav • Feb 2

100 points

Due Feb 2, 11:59 PM

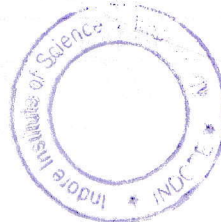
Share Screen Shot of Working Code With Register value and result



Class comments

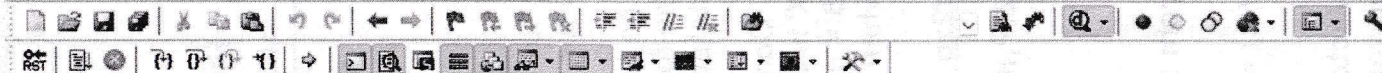


Add class comment...



E:\keil\C51\Examples\HELLO\first.uvproj - µVision

File Edit View Project Flash Debug Peripherals Tools SVCS Window Help



Registers	
Register	Value
Regs	
r0	0x21
r1	0x00
r2	0x00
r3	0x00
r4	0x00
r5	0x00
r6	0x00
r7	0x00
Sys	
a	0x26
b	0x00
sp	0x07
sp_max	0x07
dptr	0x0000
PC	0x0005
states	3
sec	0.00000326
paw	0x01

Disassembly				
C:0x0000	7405	MOV	A,#0x05	
C:0x0002	7821	MOV	R0,#0x21	
5: ADD a,r0				
C:0x0004	28	ADD	A,R0	
C:0x0005	00	NOP		
C:0x0006	00	NOP		
C:0x0007	00	NOP		
C:0x0008	00	NOP		
C:0x0009	00	NOP		
C:0x000A	00	NOP		
C:0x000B	00	NOP		
C:0x000C	00	NOP		

first.c 8051.c STARTUP.A51 HELLO.C add.asm				
115				
116	?C_CS1STARTUP	SEGMENT	CODE	
117	?STACK	SEGMENT	IDATA	
118				
119		RSEG	?STACK	
120		DS	1	
121				
122		EXTRN	CODE (?C_START)	
123		PUBLIC	?C_STARTUP	
124				
125		CSEG	AT 0	
126	?C_STARTUP:	LJMP	STARTUP1	
127				
128		RSEG	?C_CS1STARTUP	
129				

Project Registers

Text Editor Configuration Wizard

Command

Running with Code Size Limit: 2K

Load "E:\\keil\\C51\\Examples\\HELLO\\Objects\\first"

\*\*\* error 65: access violation at C:0x0005 : no 'execute/read' permission

Watch 1		
Name	Value	Type
<Enter expression>		

ASM ASSIGN BreakDisable BreakEnable BreakKill BreakList BreakSet BreakAccess COVTOFILE

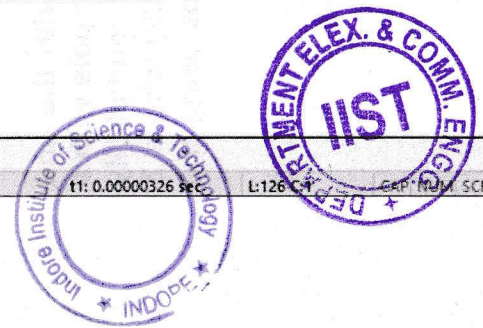
Call Stack + Locals Watch 1 Memory 1

Simulation

t1: 0.00000326 sec

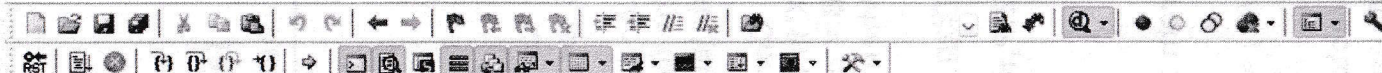
L:126 C4

CAP:MM SCRL OVR R/W



E:\keil\C51\Examples\HELLO\firstuvproj - µVision

File Edit View Project Flash Debug Peripherals Tools SVCS Window Help



Registers	
Register	Value
Regs	
r0	0x21
r1	0x00
r2	0x00
r3	0x00
r4	0x00
r5	0x00
r6	0x00
r7	0x00
Sys	
a	0x26
b	0x00
sp	0x07
sp_max	0x07
dptr	0x0000
PC	0x0005
states	3
sec	0.00000326
psw	0x01

Disassembly			
C:0x0000	7405	MOV	A,#0x05
C:0x0002	7821	MOV	R0,#0x21
5: ADD a,r0			
C:0x0004	28	ADD	A,R0
C:0x0005	00	NOP	
C:0x0006	00	NOP	
C:0x0007	00	NOP	
C:0x0008	00	NOP	
C:0x0009	00	NOP	
C:0x000A	00	NOP	
C:0x000B	00	NOP	
C:0x000C	00	NOP	

first.c 8051.c STARTUP.A51 HELLO.C add.asm			
115			
116	?C_CS1STARTUP	SEGMENT	CODE
117	?STACK	SEGMENT	IDATA
118			
119		RSEG	?STACK
120		DS	1
121			
122		EXTRN	CODE (?C_START)
123		PUBLIC	?C_STARTUP
124			
125		CSEG	AT 0
126	?C_STARTUP:	LJMP	STARTUP1
127			
128		RSEG	?C_CS1STARTUP
129			

Project Registers

Text Editor Configuration Wizard

Command

Running with Code Size Limit: 2K

Load "E:\\keil\\C51\\Examples\\HELLO\\Objects\\first"

\*\*\* error 65: access violation at C:0x0005 : no 'execute/read' permission

Watch 1		
Name	Value	Type
<Enter expression>		

ASM ASSIGN BreakDisable BreakEnable BreakKill BreakList BreakSet BreakAccess COVERAGE COVTOFILE

Call Stack + Locals Watch 1 Memory 1

Simulation

t1: 0.00000326 sec

L:126 C4

CAP:NUM SCRL OVR R/W





Instructions

Student work

# Led Interfacing With Complete Port 2



Ravi Yadav • Feb 3

100 points

Due Feb 3, 11:59 PM

Submit C Code

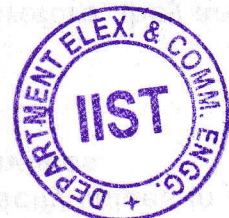
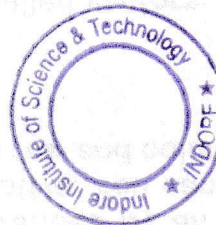
Design File



Class comments



Add class comment...



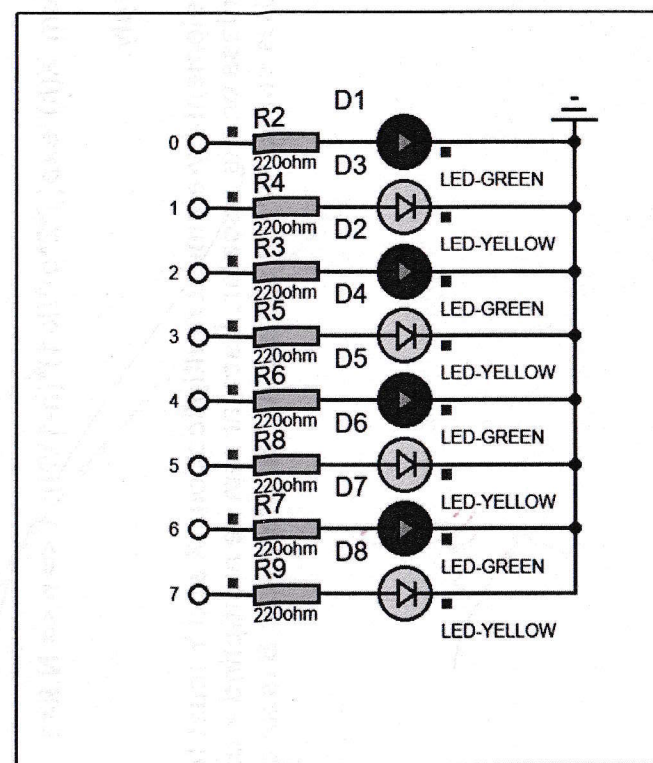
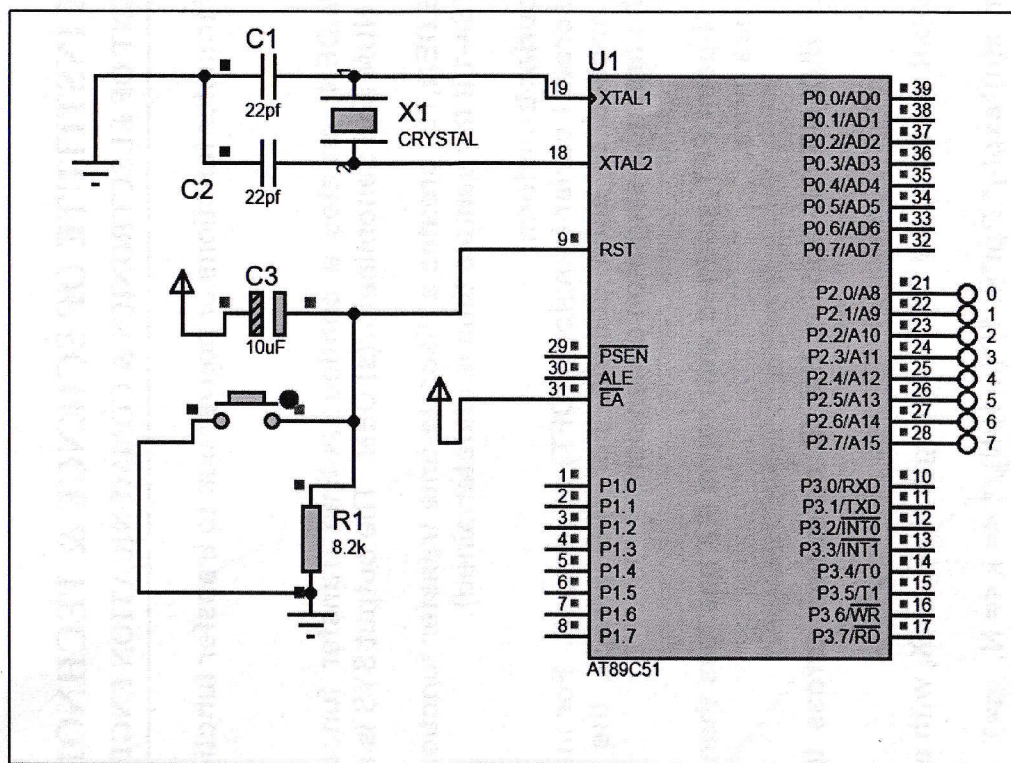
# led port interfacing (1).c

```
#include<reg51.h>
#define Port P2
void MSDelay(unsigned int a);

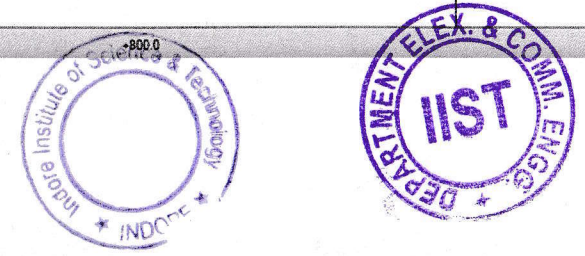
void main()
{
    while(1)
    {
        Port=0x00;
        MSDelay(100);
        Port=0xff;
        MSDelay(100);
        Port=0x55;
        MSDelay(100);
        Port=0xCC;
        MSDelay(100);
        Port=0x33;
        MSDelay(100);
        Port=0xF0;
        MSDelay(100);
    }
}

void MSDelay(unsigned int a)
{
    unsigned int i,j;
    for(i=0; i<a; i++)
        for(j=0; j<1275; j++) /// 1ms =1275 us approx
        {}
}
```





Sandesh Kale





Instructions

Student work

# Counter System Using Switch & Led



Ravi Yadav • Feb 4

100 points

Due Feb 6, 11:59 PM

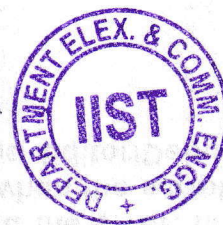
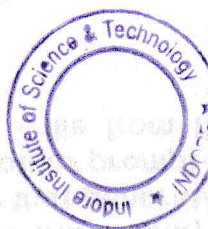
Upload Code &amp; Design Screen Shot



Class comments



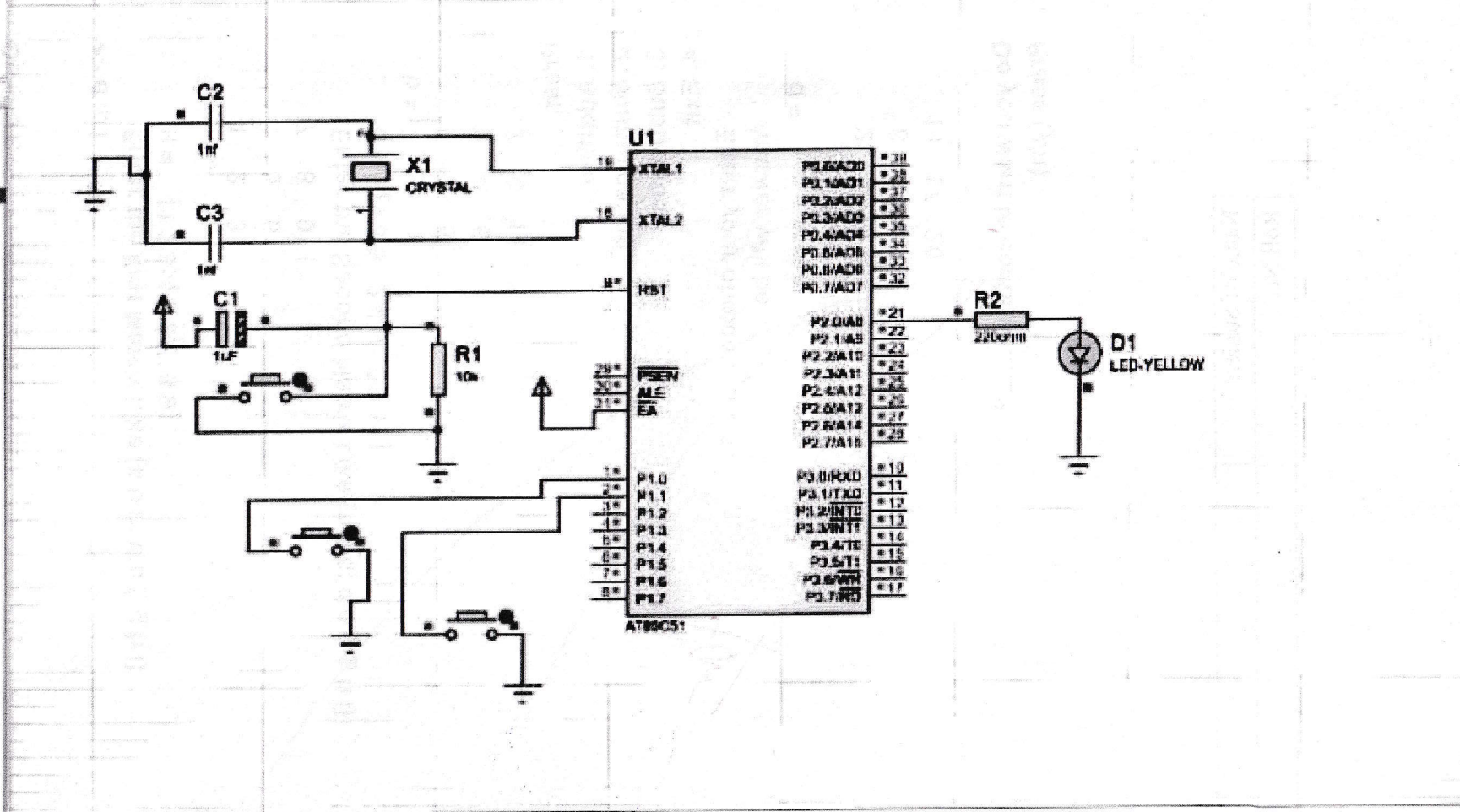
Add class comment...



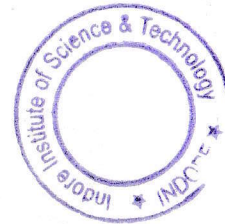
**TERMINALS**

DEFAULT  
INPUT  
OUTPUT  
RISE  
POWER  
GROUND  
CHASSIS  
DYNAMIC  
BUS  
NO

Copy Paste  
Cut Paste  
Undo Redo  
Zoom In Zoom Out  
Zoom Reset



5 Messages Shows the currently loaded terminal symbols



Project: switchhanded  
Target 1  
Source Group 1  
STARTUP.AS1  
switchhanded.c

switchhanded.c

```
1 //include reg01.h
2 #define led = D1<0>
3 #define button1 = D1<4>
4 #define button2 = D1<1>
5 void delay(unsigned int a)
6 {
7     unsigned int count;
8     while(a)
9     {
10         led=~led;
11         button1=~button1;
12         count++;
13         while(1)
14         {
15             if(button1==0)
16             {
17                 count=count+1;
18                 delay(100);
19             }
20             if(button2==0)
21             {
22                 count=count-1;
23                 delay(100);
24             }
25         }
26         if(count==0)
27         {
28             led=~led;
29             if(count==0)
30             {
31                 led=~led;
32             }
33         }
34     }
35 }
36 void delay(unsigned int a)
37 {
38 }
```

File  
Edit  
View  
Tools  
Help

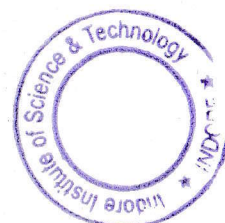
...D:...\code-132  
...m ".\Objects\switchhanded"...  
led" - 0 Error(s), 0 Warning(s).  
00:00:01

Simulation

L44 02

L44 NUM SCLK OVER R3

Search the web and Windows





Instructions

Student work

## 3 Digit Seven Segment 0-999 Display



Ravi Yadav • Feb 9

100 points

Submit Code File

Design File

Working Video



Class comments



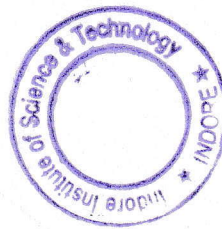
Add class comment...

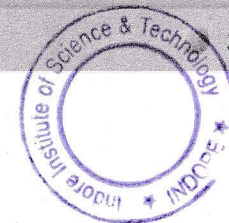
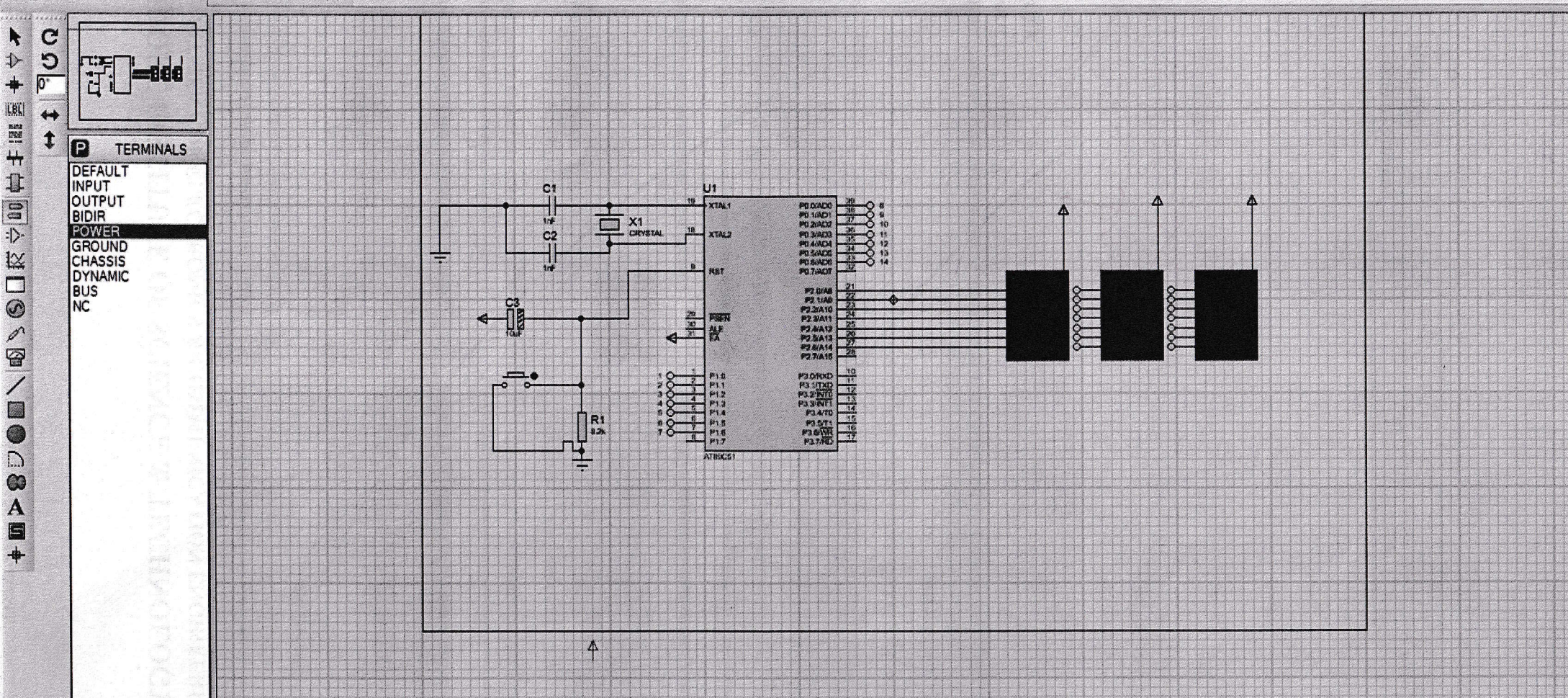


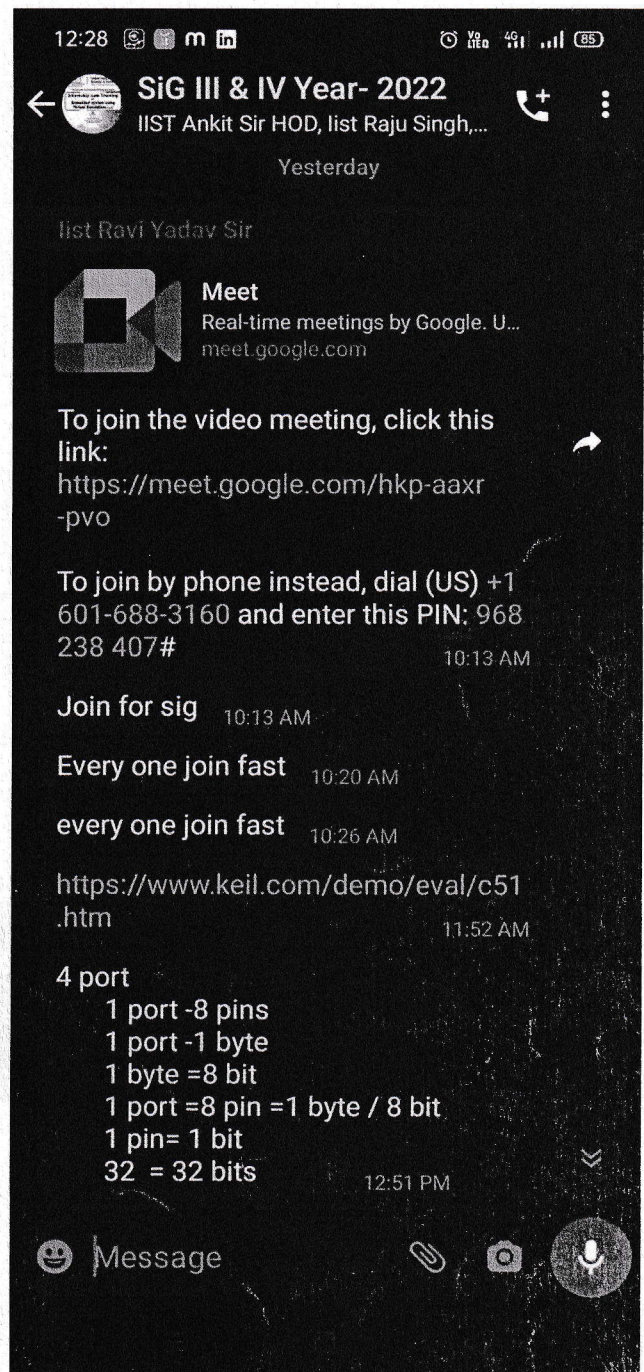
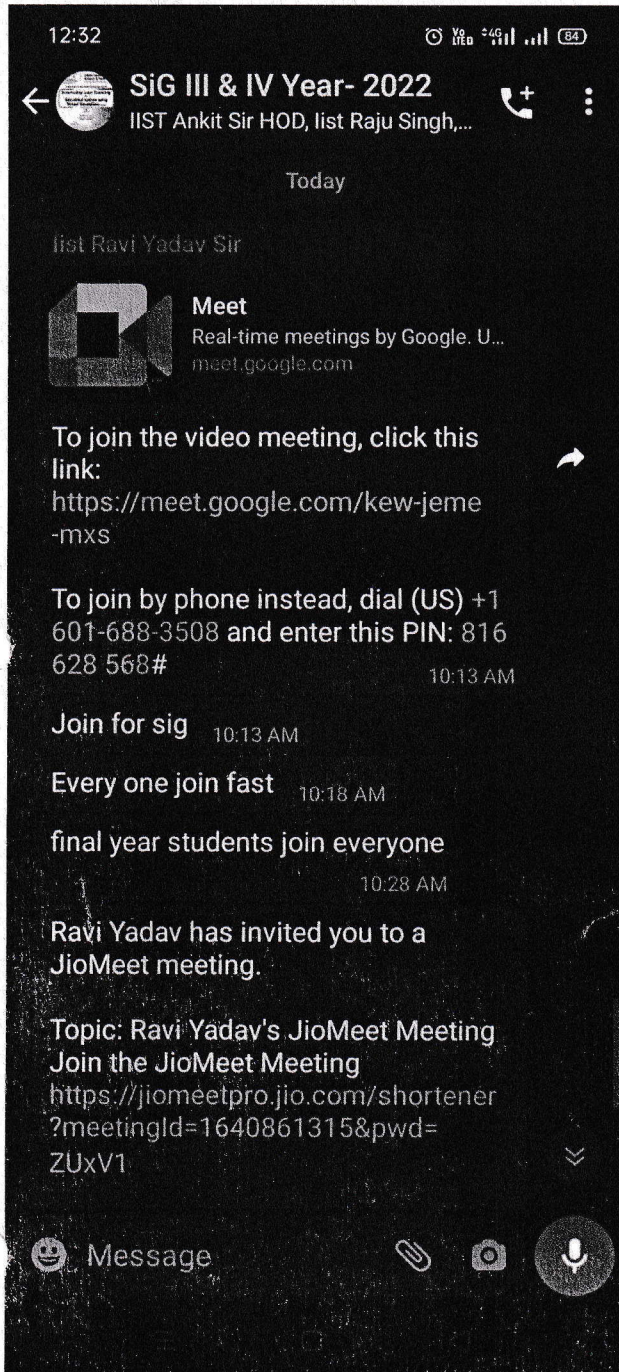
# 999segment.c

```
#include <reg51.h>
#define s P2
#define k P0
#define u P1
void delay(unsigned int a);
unsigned char seg[]={0xC0,0xF9,0xA4,0xB0,0x99,0x92,0x82,0xF8,0x80,0x90};
void main(void)
{
    P2=0xff;
    P1=0xff;
    while(1)
    {
        unsigned int i,j,t;
        for(t=0;t<10;t++)
        {
            u=seg[t];
            for(i=0;i<10;i++)
            {
                s=seg[i];
                for(j=0;j<10;j++)
                {
                    k=seg[j];
                    delay(5);
                }
            }
        }
    }
}

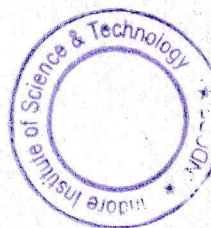
void delay(unsigned int a)
{
    unsigned int i,j;
    for(i=0;i<a;i++)
        for(j=0;j<1275;j++) //1275 = 1ms delay if we run this
                                loop 1275 x 100 then = 100ms
    {}
}
```







COORDINATOR





## Internship / Special Interest Group Jan-2022

EC III &amp; IV Year



D

Instructions

Student work



0

Turned in

32

Assigned

All



Rahul Alatre

Assigned

Anujpratapsingh  
Bhadoriya

Assigned



SWATI BISEN

Assigned



Lipika Debnath

Assigned

DEEPAK  
SURYAWANSHI

Assigned

Jaibhan Singh  
Gaur

Assigned



Aayushi Gurjar

Assigned



MADHAVI JOSHI

Assigned



Sandesh Kale

Assigned



Anuj Karma

Assigned



Abhishek Khatik

Assigned



Rohit kumar

Assigned

Abhay Singh  
Lodhi

Assigned



Aditya Medatwal

Assigned



Aarti Nagar

Assigned



Chetan Patel

Assigned



Abhishek Patidar

Assigned



Gourav Patidar

Assigned

PRADEEP  
PUNJABI

Assigned



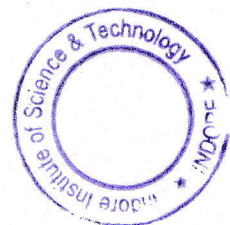
Kshanik Rajak

Assigned



Aman Rathore

Assigned



COORDINATOR



## Internship / Special Interest Group Jan-2022

EC III &amp; IV Year



D

Instructions

Student work



aayush sharma

Assigned

Abhishek  
Sharma

Assigned



Anjali Sharma

Assigned



Harsh Swami

Assigned

NAVEEN  
THAKUR

Assigned



Akshay Tiwari

Assigned



alka yadav

Assigned



Bharat yadav

Assigned



COORDINATOR



# Quiz of Embedded System Using Virtual Simulation

16 responses

Publish analytics

## Name of Student

16 responses

Rahul Alatre

Aditya medatwal

AKSHAY TIWARI

Anuj karma

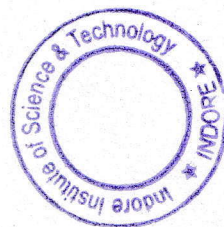
Aman Rathore

Anjali Sharma

Tanisha Chawada

Sandesh Kale

Aayushi Gurjar



## Enrollment No

16 responses

0818EC191026

0718ec191007

0818EC191008

0818Ec191012

0818CM191004

0818EC191010

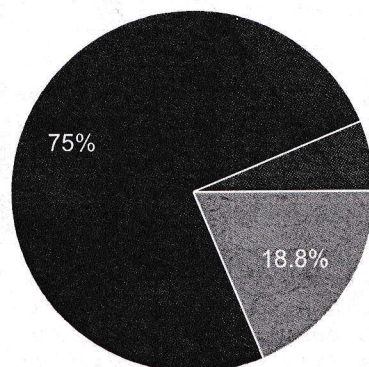
0818EC191030

0818EC191029

0818EC191002

## Semester

16 responses

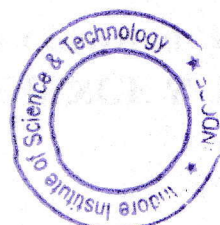
 Copy

- III Sem
- IV Sem
- V Sem
- VI Sem
- VII Sem
- VIII Sem

## 1.AT89C2051 has RAM of:

 Copy

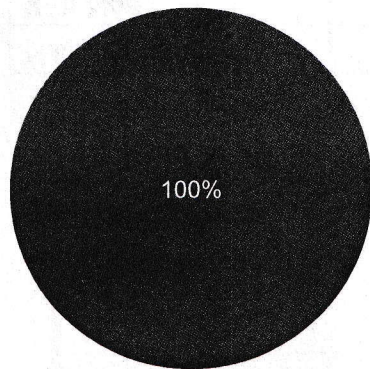
16 responses



2.8051 series has how many 16 bit registers?

 Copy

16 responses

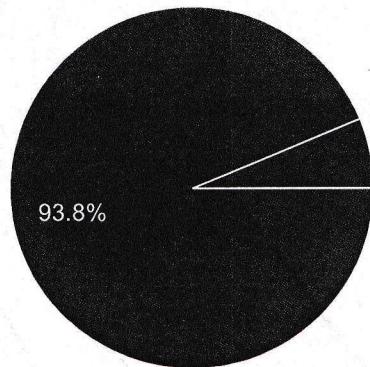


- ☒ 2
- ☒ 3
- ☐ 1
- ☐ 0

3. When the microcontroller executes some arithmetic operations, then the flag bits of which register are affected?

 Copy

16 responses

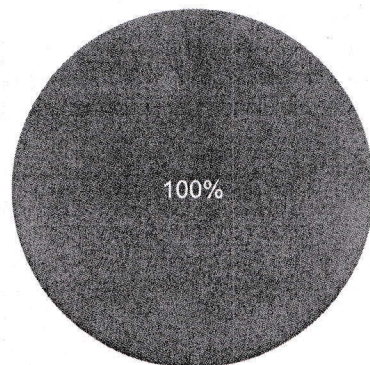


- ☒ PSW
- ☒ SP
- ☐ DPTR
- ☐ PC

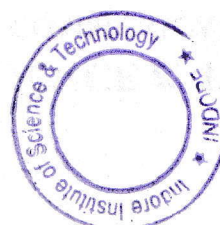
4. How many bytes of bit addressable memory is present in 8051 based microcontrollers?

 Copy


16 responses



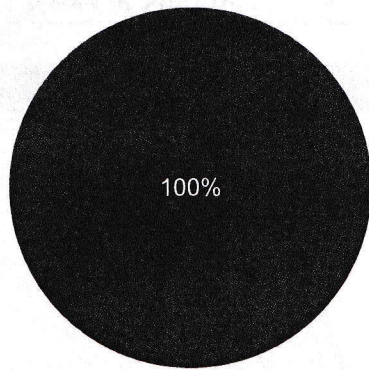
- ☒ 8 bytes
- ☒ 32 bytes
- ☐ 16 bytes
- ☐ 128 bytes



5. When the 8051 is reset and the line is HIGH, the program counter points to the first program instruction in the:

 Copy

16 responses

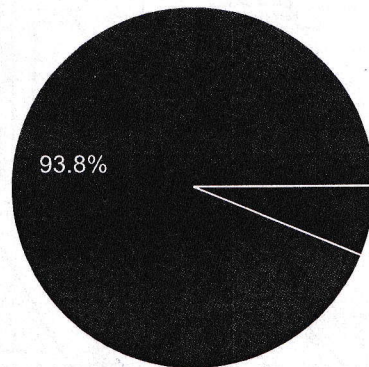


- internal code memory
- external code memory
- internal data memory
- external data memory

6. How many data lines are there in a 16\*2 alphanumeric LCD?

 Copy

16 responses

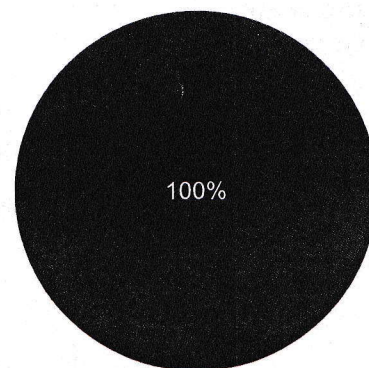


- 16
- 8
- 1
- 0

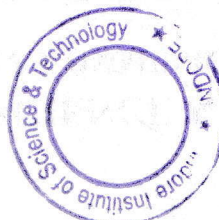
7. Which command of an LCD is used to shift the entire display to the right?

 Copy

16 responses



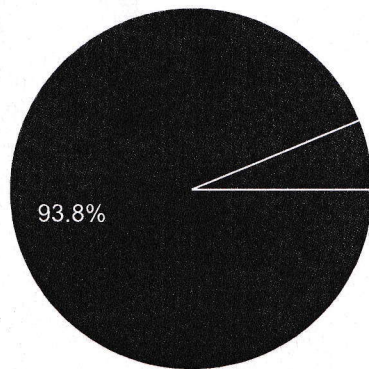
- 0x1C
- 0x18
- 0x05
- 0x07



8.What is the principle on which electromagnetic relays operate?

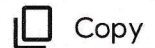


16 responses

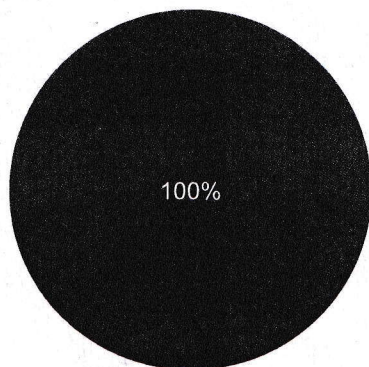


- ☒ electromagnetic induction
- ☐ motor control
- ☐ switching
- ☐ none of the mentioned

9.Why do we need a ULN2803 in driving a relay?



16 responses

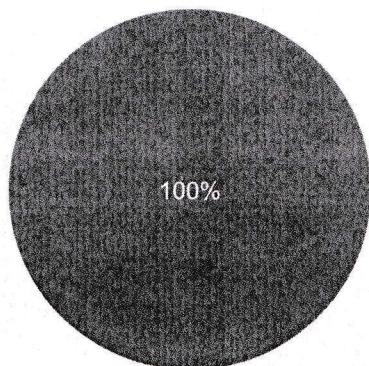


- ☒ for switching a motor
- ☐ for increasing the current
- ☐ for increasing the power
- ☐ for switching the voltage

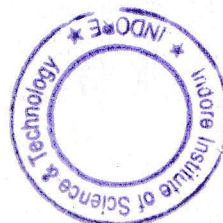
10.DS12887 has \_\_\_\_ amount of RAM.



16 responses



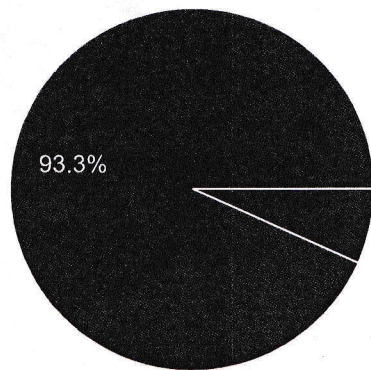
- ☒ 14 bytes
- ☐ 114 bytes
- ☐ 128 bytes
- ☐ 64 bytes



11. What is the difference between LM 34 and LM 35 sensors?



15 responses

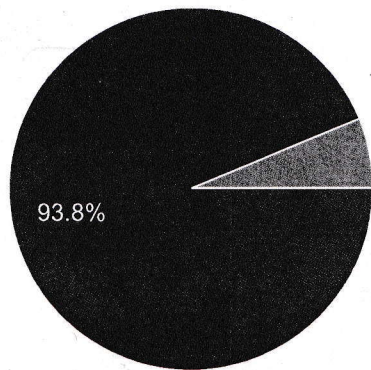


- ☒ one is a sensor and the other is a transducer
- ☐ one's output voltage corresponds to the Fahrenheit temperature and the other corresponds to the Celsius temperature
- ☐ one is of low precision and the other is of higher precision
- ☐ one requires external calibration and the other doesn't require it

12. Why Vref is set of ADC0848 to 2.56 V if analog input is connected to the LM35?



16 responses

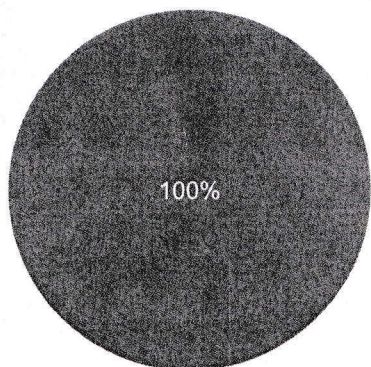


- ☒ to set the step size of the sampled input
- ☐ to set the ground for the chip
- ☐ to provide supply to the chip
- ☐ all of the mentioned

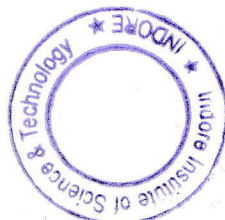
13. The four ports P0, P1, P2, and P3, each use \_\_\_\_\_ pins.



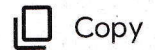
14 responses



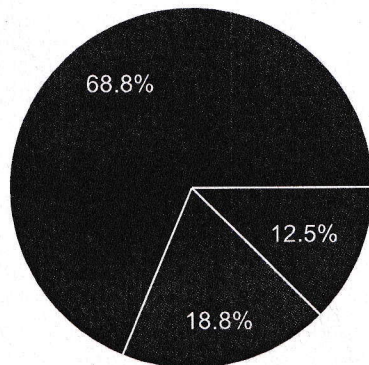
- ☐ 2
- ☐ 4
- ☐ 8
- ☒ 16



14. Which of the following is also an active low pin and it gets activated after applying a low pulse.



16 responses

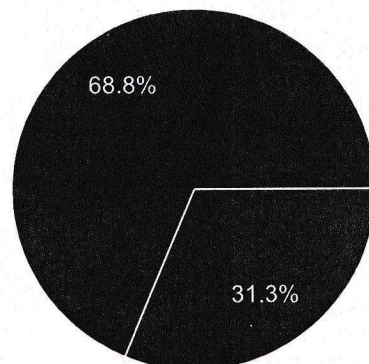


- RST
- EA
- ALE
- PSEN

15. What is the most appropriate criterion for choosing the right microcontroller of our choice?



16 responses

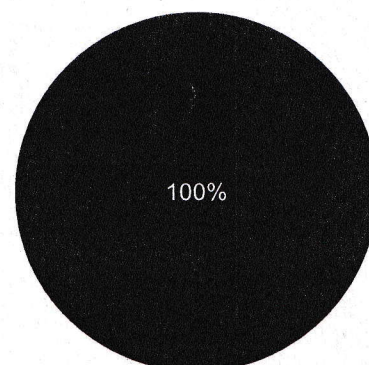


- speed
- availability
- ease with the product
- all of the mentioned

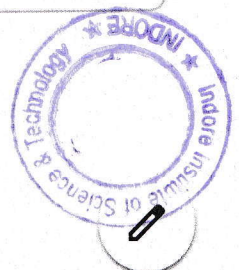
16. What does API stand for?



16 responses



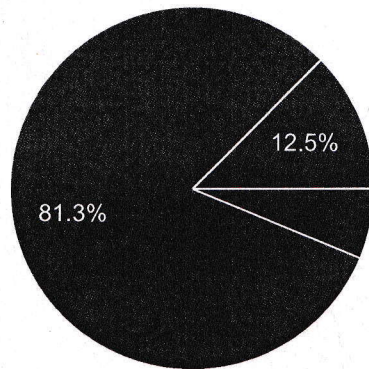
- Application Programming Interface
- Address Programming Interface
- Accessing peripheral through the interface
- None of them



17. Which design can be used to reduce the energy consumption of the embedded system?



16 responses

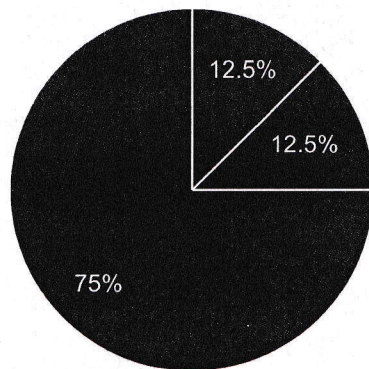


- Simulator
- Compiler
- Emulator
- Debugger

18. Which port does not represent quasi-bidirectional nature of I/O ports in accordance to the pin configuration of 8051 microcontroller?

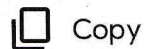


16 responses

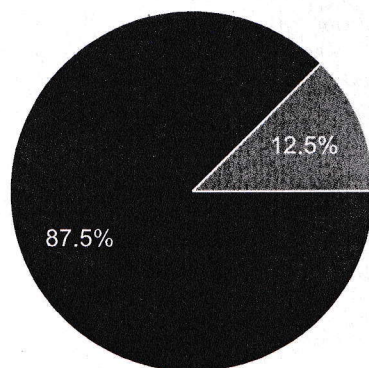


- Port 0 (Pins 32-39)
- Port 1 (Pins 1-8)
- Port 2 (Pins 21-28)
- Port 3 (Pins 10-17)

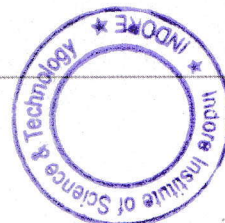
19. Which among the below mentioned functions does not belong to the category of alternate functions usually performed by Port 3 (Pins 10-17)?



16 responses



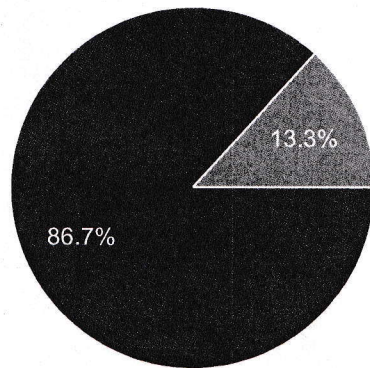
- External Interrupts
- Internal Interrupts
- Serial Ports
- Read / Write Control signals



20. Which memory allow the execution of instructions till the address limit of 0FFFH especially when the External Access (EA) pin is held high?

 Copy

15 responses

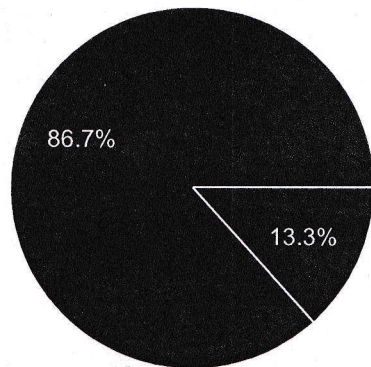


- Internal Program Memory
- External Program Memory
- Both a & b
- None of the above

21. Why are the resonators not preferred for an oscillator circuit Of 8051?

 Copy

15 responses

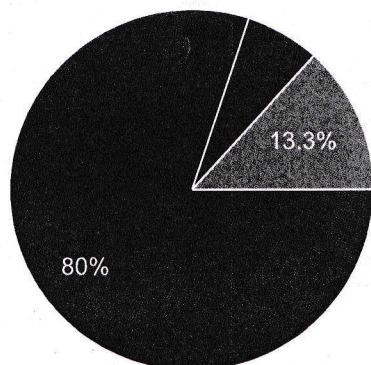


- Because they do not avail for 12 MHz higher order frequencies
- Because they are unstable as compared to quartz crystals
- Because cost reduction due to its utility is almost negligible in comparison to total cost of microcontroller board
- All of the above

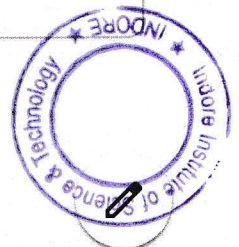
22. What happens when the pins of port 0 & port 2 are switched to internal ADDR and ADDR / DATA bus respectively while accessing an external memory?

 Copy

15 responses



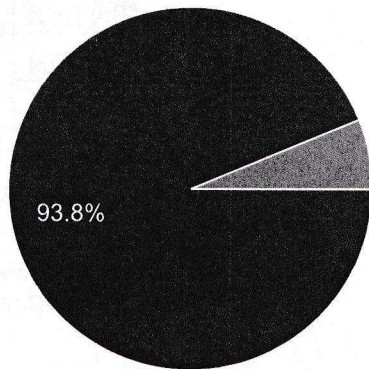
- Ports cannot be used as general-purpose Inputs / Outputs
- Ports start sinking more current than sourcing
- Ports cannot be further used as high impedance input
- All of the above



23. How does the processor respond to an occurrence of the interrupt?



16 responses

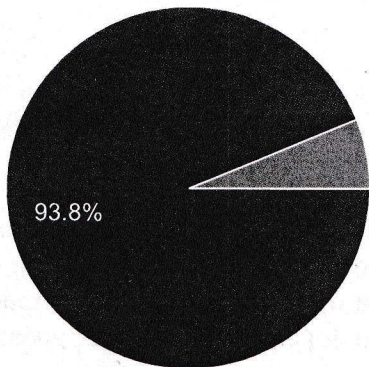


- By Interrupt Service Subroutine
- By Interrupt Status Subroutine
- By Interrupt Structure Subroutine
- By Interrupt System Subroutine

24. What is the counting rate of a machine cycle in correlation to the oscillator frequency for timers?

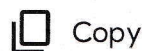


16 responses

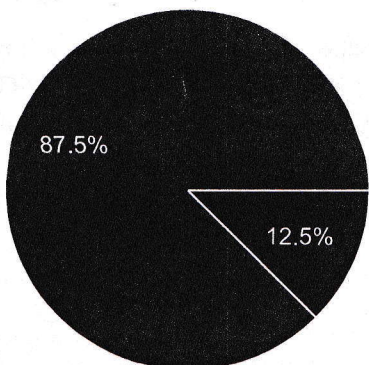


- 1 / 10
- 1 / 12
- 1 / 15
- 1 / 20

25. How many machine cycle/s is / are executed by the counters in 8051 in order to detect '1' to '0' transition at the external pin?



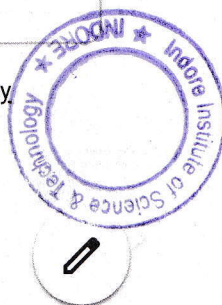
16 responses



- One
- Two
- Four
- Eight

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Google Forms



# INDORE INSTITUTE OF SCIENCE AND TECHNOLOGY, INDORE

Session jan-june 2022

## Quiz of Embedded System Using Virtual Simulation

Timestamp	Score	Name of Student	Enrollment No	Sem
2/15/2022 12:38:24	18	Rahul Alatre	0818EC191026	VI Sem
2/15/2022 12:38:28	17	Aditya medatwal	0718ec191007	VI Sem
2/15/2022 12:38:37	19	AKSHAY TIWARI	0818EC191008	VI Sem
2/15/2022 12:40:31	21	Anuj karma	0818Ec191012	V Sem
2/15/2022 12:41:20	16	Aman Rathore	0818CM191004	V Sem
2/15/2022 12:41:33	22	Anjali Sharma	0818EC191010	VI Sem
2/15/2022 12:41:39	24	Tanisha Chawada	0818EC191030	VI Sem
2/15/2022 12:41:40	24	Sandesh Kale	0818EC191029	V Sem
2/15/2022 12:42:02	22	Aayushi Gurjar	0818EC191002	VI Sem
2/15/2022 12:42:29	19	Abhishek Patidar	0818EC191005	VI Sem
2/15/2022 12:43:23	16	Anuj Pratap Singh Bhadoriya	0818EC191011	VI Sem
2/15/2022 12:47:15	15	Chetan patel	0818EC191015	VI Sem
2/15/2022 12:48:48	24	Madhavi joshi	0818EC181006	VIII Sem
2/15/2022 12:49:37	16	Rohit kumar	0818EC191027	VI Sem
2/15/2022 13:52:25	22	Lipika Debnath	0818EC191023	VI Sem
2/15/2022 18:24:19	18	DEEPAK SURYAWANSHI	0181EC191016	VI Sem

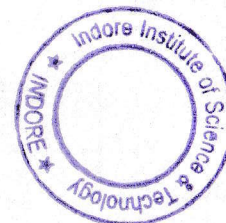


Summary								
	5	4	3	2	1	0	COUNT	TOTAL
Q-1	11	17	2	0	0	0	30	129
Q-2	11	15	4	0	0	0	30	384
Q-3	15	11	4	0	0	0	30	346
Q-4	7	18	5	0	0	0	30	323
Q-5	9	12	9	0	0	0	30	324
Q-6	5	15	9	1	0	0	30	306
Q-7	10	13	6	1	0	0	30	300
Q-8	7	16	7	0	0	0	30	320
Q-9	9	14	7	0	0	0	30	336
Q-10	7	18	4	1	0	0	30	343



Timestamp	Name of Student	Mobile Number	Semester /Year	1. The presenter/lecturer/trainer/facilitator(s) was/were knowledgeable	2. The presenter/lecturer/trainer/facilitator(s) was/were well-prepared	3. The content of the workshop/training/seminar/course has met the stated objectives fully.	4. The workshop/training/seminar/course has met the stated objectives fully.	5. I would be interested in attending a follow up, more advanced workshop on this same subject	6. How would you rate today hands-on practical session of the workshop	7. Is this workshop helpful for academic/competitive growth?	8. Is this workshop helpful for making your minor/major/competition projects?	9. How was your experience about the workshop venue/facility?	10. Rate Overall Workshop
2/15/2022 12:04:38	Madhavi joshi	0818EC181006	Fourth Year	Satisfied	Satisfied	Satisfied	Satisfied	Good	Good	Satisfied	Satisfied	Good	Satisfied
2/15/2022 12:05:03	Sandesh Kale	0818EC191029	Third Year	Very Satisfied	Very Satisfied	Very Satisfied	Very Satisfied	Very Satisfied	Very Satisfied	Very Satisfied	Very Satisfied	Very Satisfied	Very Satisfied
2/15/2022 12:05:06	Tanisha Chawada	0818EC191030	Third Year	Satisfied	Satisfied	Satisfied	Satisfied	Satisfied	Satisfied	Satisfied	Satisfied	Satisfied	Satisfied
2/15/2022 12:05:18	Rahul Alatre	0818EC191026	Third Year	Satisfied	Very Satisfied	Satisfied	Satisfied	Satisfied	Good	Very Satisfied	Satisfied	Satisfied	Satisfied
2/15/2022 12:05:31	Aditya medatwal	0818ec191007	Third Year	Satisfied	Satisfied	Very Satisfied	Satisfied	Good	Very Satisfied	Very Satisfied	Satisfied	Satisfied	Satisfied
2/15/2022 12:06:06	Aman Rathore	0818CM191004	Third Year	Very Satisfied	Very Satisfied	Very Satisfied	Very Satisfied	Satisfied	Very Satisfied	Very Satisfied	Very Satisfied	Very Satisfied	Very Satisfied
2/15/2022 12:06:08	AKSHAY TIWARI	0818EC191008	Third Year	Satisfied	Very Satisfied	Very Satisfied	Very Satisfied	Satisfied	Satisfied	Very Satisfied	Very Satisfied	Very Satisfied	Satisfied
2/15/2022 12:07:08	Aayushi Gurjar	0818EC191002	Third Year	Very Satisfied	Very Satisfied	Very Satisfied	Very Satisfied	Very Satisfied	Very Satisfied	Very Satisfied	Very Satisfied	Very Satisfied	Very Satisfied
2/15/2022 12:07:59	Chetan patel	0818EC191015	Third Year	Satisfied	Satisfied	Satisfied	Satisfied	Satisfied	Satisfied	Satisfied	Satisfied	Very Satisfied	Very Satisfied
2/15/2022 12:09:12	Abhishek Patidar	081EC191005	Third Year	Very Satisfied	Very Satisfied	Very Satisfied	Very Satisfied	Very Satisfied	Satisfied	Very Satisfied	Very Satisfied	Very Satisfied	Very Satisfied
2/15/2022 12:12:20	Tejasvi Mathankar	0818EC191031	Third Year	Satisfied	Satisfied	Very Satisfied	Good	Good	Good	Satisfied	Satisfied	Satisfied	Good
2/15/2022 12:41:29	DEEPAK SURYAWANSHI	0818EC191016	Third Year	Good	Good	Good	Good	Good	Good	Good	Good	Good	Satisfied
2/15/2022 12:52:16	Rohit kumar	0818EC191027	Third Year	Satisfied	Satisfied	Satisfied	Satisfied	Satisfied	Satisfied	Satisfied	Satisfied	Satisfied	Satisfied
3/12/2022 12:52:12	Alka yadav		Third Year	Very Satisfied	Satisfied	Very Satisfied	Satisfied	Very Satisfied	Satisfied	Very Satisfied	Satisfied	Very Satisfied	Satisfied
3/12/2022 12:56:08	Anuj Pratap Singh		Third Year	Satisfied	Satisfied	Satisfied	Satisfied	Satisfied	Satisfied	Satisfied	Satisfied	Satisfied	Satisfied
3/12/2022 12:56:12	Aditya medatwal		Third Year	Satisfied	Satisfied	Good	Satisfied	Good	Satisfied	Good	Satisfied	Satisfied	Satisfied
3/12/2022 12:57:15	Lipika Debnath		Third Year	Very Satisfied	Very Satisfied	Very Satisfied	Satisfied	Very Satisfied	Satisfied	Very Satisfied	Satisfied	Satisfied	Satisfied
3/12/2022 12:57:23	Bharat		Third Year	Satisfied	Satisfied	Good	Satisfied	Very Satisfied	Good	Good	Good	Good	Good
3/12/2022 12:58:14	Aayush Sharma		Third Year	Satisfied	Satisfied	Very Satisfied	Good	Good	Average	Satisfied	Satisfied	Satisfied	Very Satisfied
3/12/2022 13:01:13	Anjali Sharma		Third Year	Satisfied	Satisfied	Satisfied	Satisfied	Satisfied	Good	Satisfied	Satisfied	Satisfied	Satisfied
3/12/2022 13:17:15	Abhay Singh Lodhi		Third Year	Satisfied	Satisfied	Satisfied	Satisfied	Satisfied	Satisfied	Satisfied	Satisfied	Satisfied	Satisfied
3/12/2022 13:22:24	Arpit kumar sarathe		Third Year	Very Satisfied	Very Satisfied	Very Satisfied	Very Satisfied	Very Satisfied	Very Satisfied	Very Satisfied	Very Satisfied	Very Satisfied	Very Satisfied
3/12/2022 13:40:34	Narendra Malvi		Third Year	Satisfied	Satisfied	Very Satisfied	Satisfied	Satisfied	Very Satisfied	Satisfied	Satisfied	Good	Satisfied
3/12/2022 13:47:59	Abhishek		Third Year	Satisfied	Good	Very Satisfied	Satisfied	Satisfied	Good	Satisfied	Good	Satisfied	Satisfied
3/12/2022 15:14:35	Himanshu sajanekar		Third Year	Very Satisfied	Good	Satisfied	Satisfied	Very Satisfied	Satisfied	Average	Good	Satisfied	Satisfied
3/12/2022 15:17:47	gourav patidar		Third Year	Satisfied	Satisfied	Good	Good	Good	Satisfied	Satisfied	Satisfied	Good	Good
3/12/2022 15:20:35	DEEPAK SURYAWANSHI		Third Year	Very Satisfied	Very Satisfied	Very Satisfied	Satisfied	Good	Good	Good	Good	Good	Good
3/12/2022 15:37:32	Roshni sen		Third Year	Good	Good	Very Satisfied	Good	Satisfied	Satisfied	Good	Good	Very Satisfied	Average
3/13/2022 17:49:13	Jaya Chandravanshi		Third Year	Very Satisfied	Very Satisfied	Satisfied	Satisfied	Good	Good	Good	Good	Good	Satisfied
3/13/2022 17:54:49	Anuj karma		Third Year	Very Satisfied	Very Satisfied	Satisfied	Very Satisfied	Satisfied	Satisfied	Satisfied	Very Satisfied	Satisfied	Satisfied

Coordinator



# Feedback of Embedded System Using Virtual Simulation

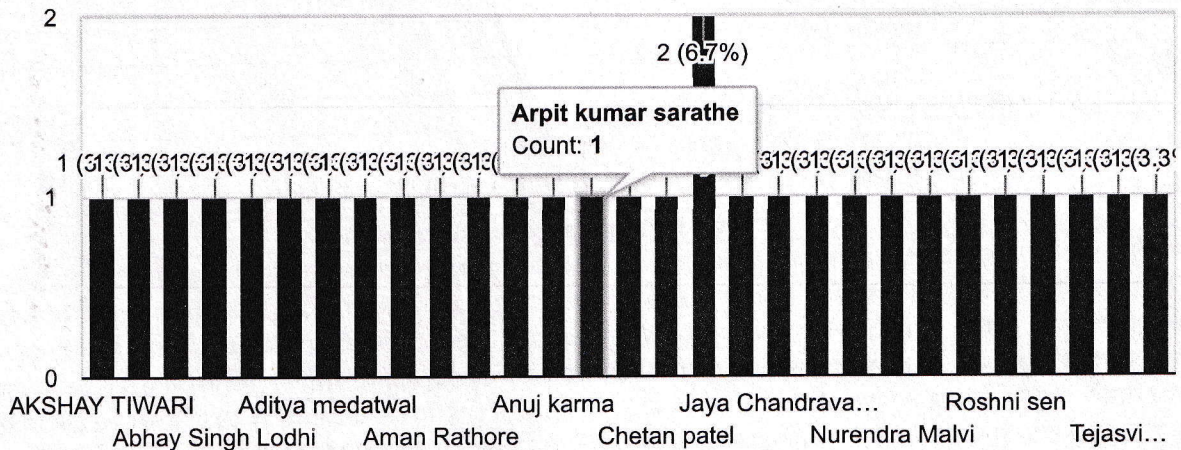
30 responses

Publish analytics

Name of Student

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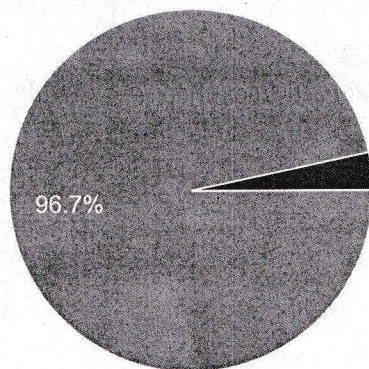
30 responses



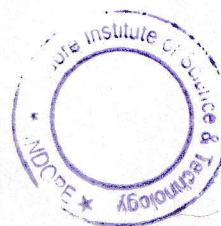
Semester /Year

Copy

30 responses




- First Year
- Second Year
- Third Year
- Fourth Year



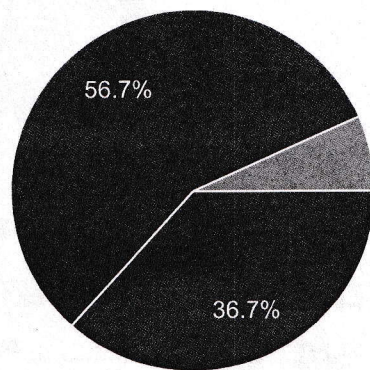
Coordinators



1. The presenter/lecturer/trainer/facilitator(s) was/were knowledgeable


 Copy

30 responses

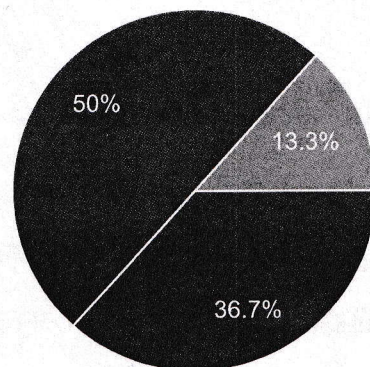


- Very Satisfied
- Satisfied
- Good
- Average

2. The presenter/lecturer/trainer/facilitator(s) was/were well-prepared


 Copy

30 responses

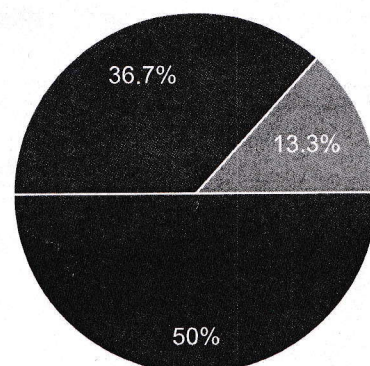


- Very Satisfied
- Satisfied
- Good
- Average

3. The content of the workshop/training/seminar was useful.

 Copy

30 responses




- Very Satisfied
- Satisfied
- Good
- Average

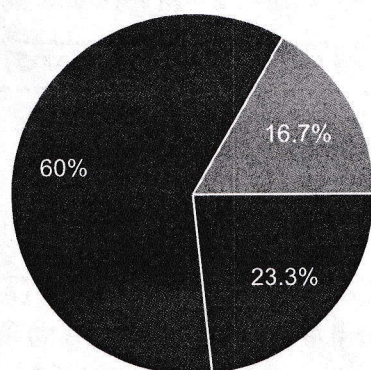
Coordinator



4. The workshop/training/seminar/course has met the stated objectives fully.


 Copy

30 responses

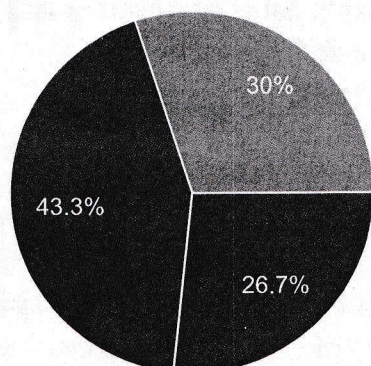


● Very Satisfied  
● Satisfied  
● Good  
● Average

5. I would be interested in attending a follow-up, more advanced workshop on this same subject


 Copy

30 responses

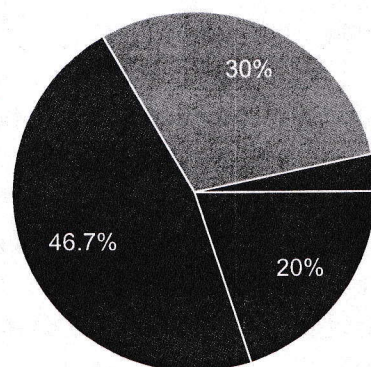


● Very Satisfied  
● Satisfied  
● Good  
● Average

6. How would you rate today hands-on practical session of the workshop

 Copy

30 responses




● Very Satisfied  
● Satisfied  
● Good  
● Average

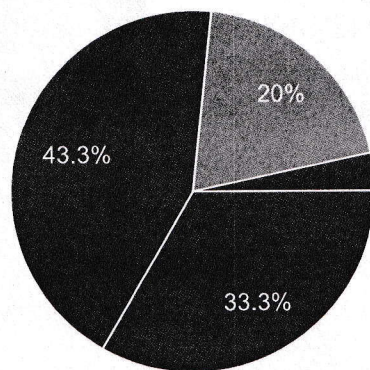
*Co-ordinator*



7. Is this workshop helpful for academic/competitive growth?


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30 responses

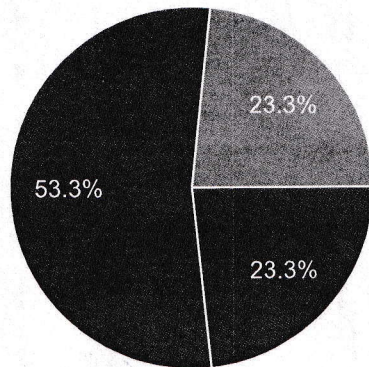


- Very Satisfied
- Satisfied
- Good
- Average

8. Is this workshop helpful for making your minor/major/competition projects?


 Copy

30 responses

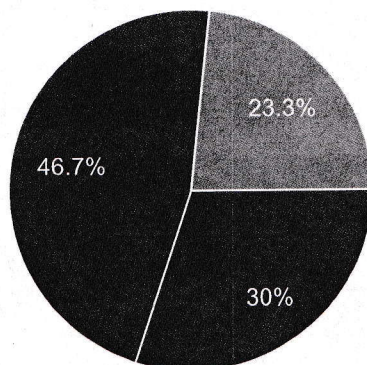


- Very Satisfied
- Satisfied
- Good
- Average

9. How was your experience about the workshop venue/facility?

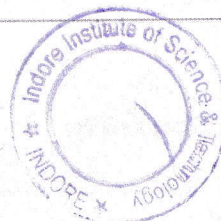
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30 responses




- Very Satisfied
- Satisfied
- Good
- Average

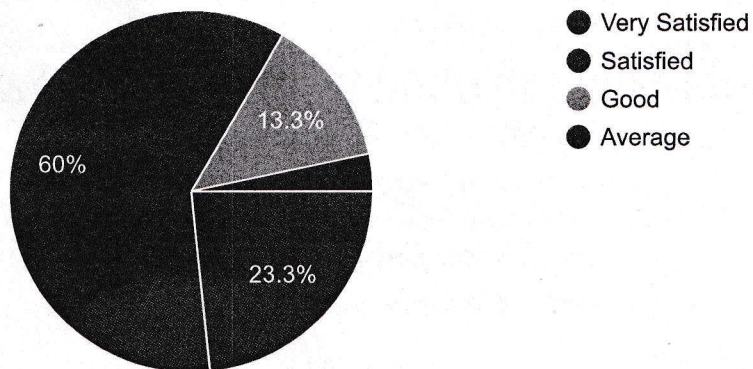
  
Coordinator




## 10. Rate Overall Workshop

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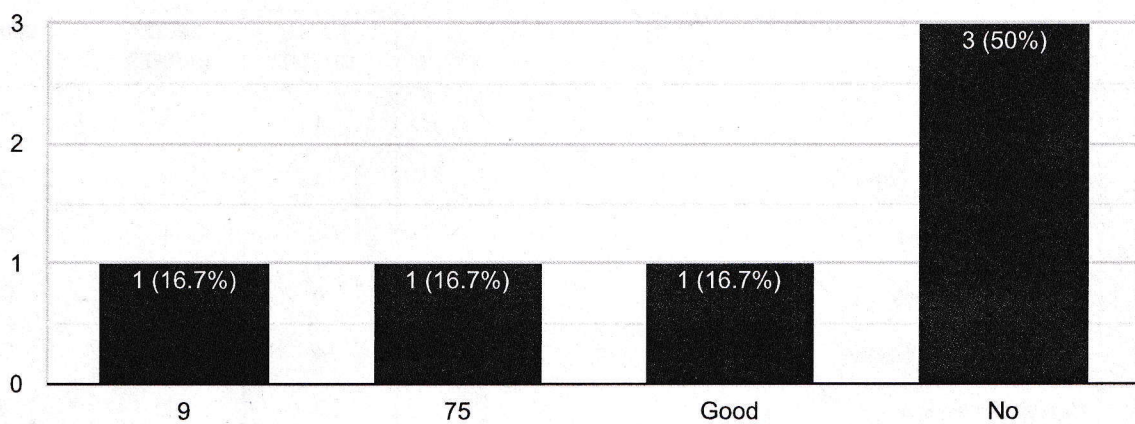
30 responses



## Additional Remarks if any

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6 responses



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Coordinator

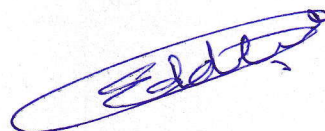
Date: 12/02/2022

## Report

Department of Electronics and Communication Engineering Successfully complete Internship cum Training on Embedded system using Virtual Simulation from 31<sup>th</sup> Jan to 12<sup>th</sup> feb 2022 and 43 students successfully completed the Internship cum Training program.

### Learning Outcomes:

- Participants acquired practical knowledge of Assembly and Embedded C.
- Participants learned about project work simulation using virtual software.
- Participants will be able to troubleshoot about embedded system applications.
- Participants are able sound technically fine in embedded system on 8051 platform.
- Participants able to deal with project development process.



**Coordinator**



# Indore Institute of Science and Technology

## Event Report

Academic Year – 2021-22

Session: Jan to June 2022

Name of Event: Workshop on Project skills development

Date of Event: 31<sup>st</sup> Jan - 12<sup>th</sup> Feb 2022

Organizing Dept.: ECE Department

Event Coordinator: Mr. Ravi Yadav

Name of Partner / co-organizer (If Industry is involved): Mr. Ravi Yadav

Address:  $\pi$ -Tech near Bhawarkua Sq.

Contact No.: 9669330357 Email Id:

Name of Industry Representative:  $\pi$ -Tech

Contact No.: 9669330357 Email Id:

Name of Expert/Guest: \_\_\_\_\_

Institute / Company: \_\_\_\_\_

Designation: \_\_\_\_\_, Department: \_\_\_\_\_

Address: \_\_\_\_\_

Contact No.: \_\_\_\_\_, Email Id: \_\_\_\_\_

### Details of Participants:

No. of Institutes Participated	No. of Students Participated	Department	No. of Industry Representative	Remark if any
		CSE/IT/EC/ME/CM/ESH		
1	12	ECE	1	

\*Please enclose a detailed list.

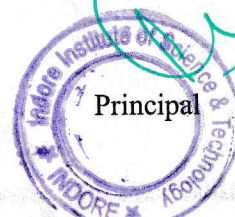
Also enclosed following details:

1. Approval Letter
2. Invitation card/Brochure / Leaflet (if printed by Institute or Organizing Partner) print/Social
3. Detailed summary on event. (Outcome)
4. Media Report (attach copy of newspaper)/ write-up for media/ FB write-up
5. Certificate / Letter (if printed by Institute or Organizing Partner)

HOD



Co-ordinator  
*[Signature]*



DATE: 14<sup>th</sup> Jan, 2022

## Approval Letter

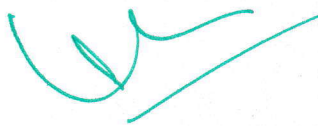
Department of Electronics & Communication Engineering interested to organize two week Training cum Workshop on Project skills development from 31<sup>th</sup> Jan to 12<sup>th</sup> Feb 2022 under Robotics SIG.

Kindly approve for organizing the Internship cum Training in the department.

Proposal enclosed herewith.



**HOD ECE**



DATE: 21<sup>th</sup> Jan, 2022

# NOTICE

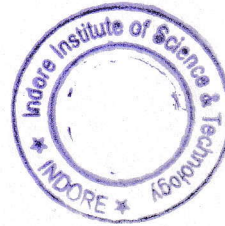
This is to inform you that Department of Electronics & Communication is going to organize Training cum Workshop on Project skills development conducted by IIST EC Department from 31<sup>th</sup> Jan to 12<sup>th</sup> Feb 2022. All the students of IV Year will have to participate actively in this event so that you will get benefits from that event. The event will be held online from 2:30PM to 04:20PM.

## Faculty Coordinators:

a) Mr. Ravi Yadav



So, I invite all the interested Students to attend/participate in the workshop and get the advantages.



Online **Training**  
cum Workshop  
on  
**Project Skills  
Development**

In Association with



for IV year

From: 31 Jan - 12 Feb, 2022

02.30pm

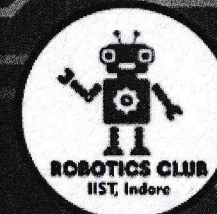
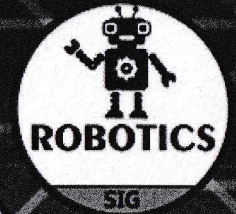
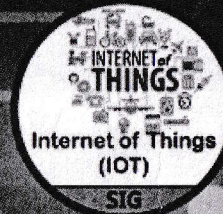
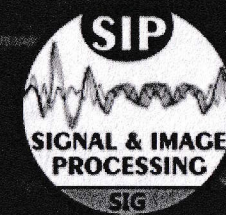
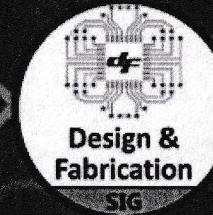


H.O.D.  
Mr. Ankit Jain

Resource Person  
Mr. Ravi Yadav

IIST Campus, Opp. IIM(Indore), Rau-Pithampur Road, Rau, Indore 453331(MP)

Toll Free: 1800 103 3069 | 822 507 1000 / 822 407 1000



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**OFFLINE INTERNSHIP PROGRAM ON**  
**Project Skills Development For Placements**  
**FOR SESSION JAN-JUNE 2021**

**Course Details**

<b>Course Name</b>	Offline Internship Program on Project Skills Development For Placements
<b>Eligible Students for course</b>	ECE, Batch 2018-22
<b>Date</b>	31, Jan 2022 - 12, Feb 2022
<b>Mode of Internship</b>	ONLINE
<b>Software download link</b>	<a href="https://www.arduino.cc/en/software">https://www.arduino.cc/en/software</a>
<b>Hardware Required</b>	Online Hardware Demonstration By Trainer Using Camera
<b>If applicable play store link</b>	Google Meet (Application Download By Google Play Store)
<b>If applicable play store link</b>	<a href="https://meet.google.com/">https://meet.google.com/</a>
<b>Pre-requisites</b>	Basics Electronics and Basic Programming Knowledge
<b>Setup Required</b>	Online/ Workshop/ Project Lab
<b>Assessment of Course</b>	In the end Quiz test will be conducted & Project Report Submission (Softcopy)
<b>Certificate Criteria</b>	Minimum 50 % in end quiz test with 80 % attendance in all session.
<b>Trainer</b>	Mr.Ravi Yadav

**Course Objective**

The objective is to engage the students in Practical, Theoretically Projects Approach, Deep Details Study & Research on Project Title.

**Course Outline**

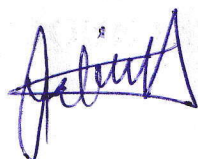
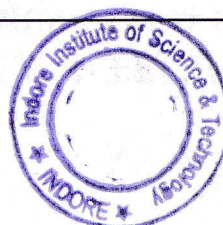
Basic Electronics, Power Supply, Programming, ESP-32, Sensors, Wireless Technology, Communication Protocol, RPi, Python.

Embedded System: technical interview for an embedded system based company, Role And Work Responsibilities, What is Embedded Software Engineer Role, Why Industry Looking For Embedded Engineer ETC.

**Course Outcome**

Students are able to express their creativity using coding and technology which is Help In placements.

Students are able to understand Project Work Software & Hardware both, Which Make students Capable to Answer the interviewer Questions

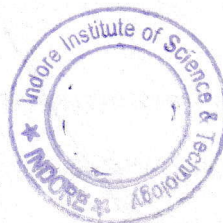



	Students are able to Learn How to Troubleshoot & Analyse the hardware problems		
	Students are able to Sound technically fine		
	Students are able to Deal With Project Management		
	<b>Course Content</b>		
	<b>Date</b>	<b>Topic</b>	<b>Resource &amp; Trainer Person</b>
	31/01/2022	Intelligent and smart Based Home Atumation on ESP-32 Wroom -D & Preparing The Topic For Interview and releted Q&A	Mr. Ravi Yadav
	01/02/2022	Intelligent and smart Based Home Atumation on ESP-32 Wroom -D & Preparing The Topic For Interview and releted Q&A	Mr. Ravi Yadav
	02/02/2022	ATM Security System Using RPI & Preparing The Topic For Interview and releted Q&A	Mr. Ravi Yadav
	03/02/2022	ATM Security System Using RPI & Preparing The Topic For Interview and releted Q&A	Mr. Ravi Yadav
	04/02/2022	Hydrophonics System Using IoT & ESP-32 Wroom -D & Preparing The Topic For Interview and releted Q&A	Mr. Ravi Yadav
	07/02/2022	Hydrophonics System Using IoT & ESP-32 Wroom -D & Preparing The Topic For Interview and releted Q&A	Mr. Ravi Yadav



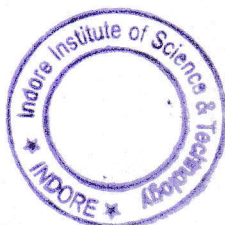
	08/02/2022	Prepaid Electricity Metrer Using IoT & ESP-32 Wroom -D & Preparing The Topic For Interview and releted Q&A	Mr. Ravi Yadav
	09/02/2022	Prepaid Electricity Metrer Using IoT & ESP-32 Wroom -D & Preparing The Topic For Interview and releted Q&A	Mr. Ravi Yadav
	09/02/2022	Tracking System Using IoT & ESP-32 Wroom -D & Preparing The Topic For Interview and releted Q&A	Mr. Ravi Yadav
	10/02/2022	Tracking System Using IoT & ESP-32 Wroom -D & Preparing The Topic For Interview and releted Q&A	Mr. Ravi Yadav
	11/02/2022	FingerPrint Based Door Lock Using IoT & ESP-32 Wroom -D	Mr. Ravi Yadav
	12/02/2022	FingerPrint Based Door Lock Using IoT & ESP-32 Wroom -D	Mr. Ravi Yadav

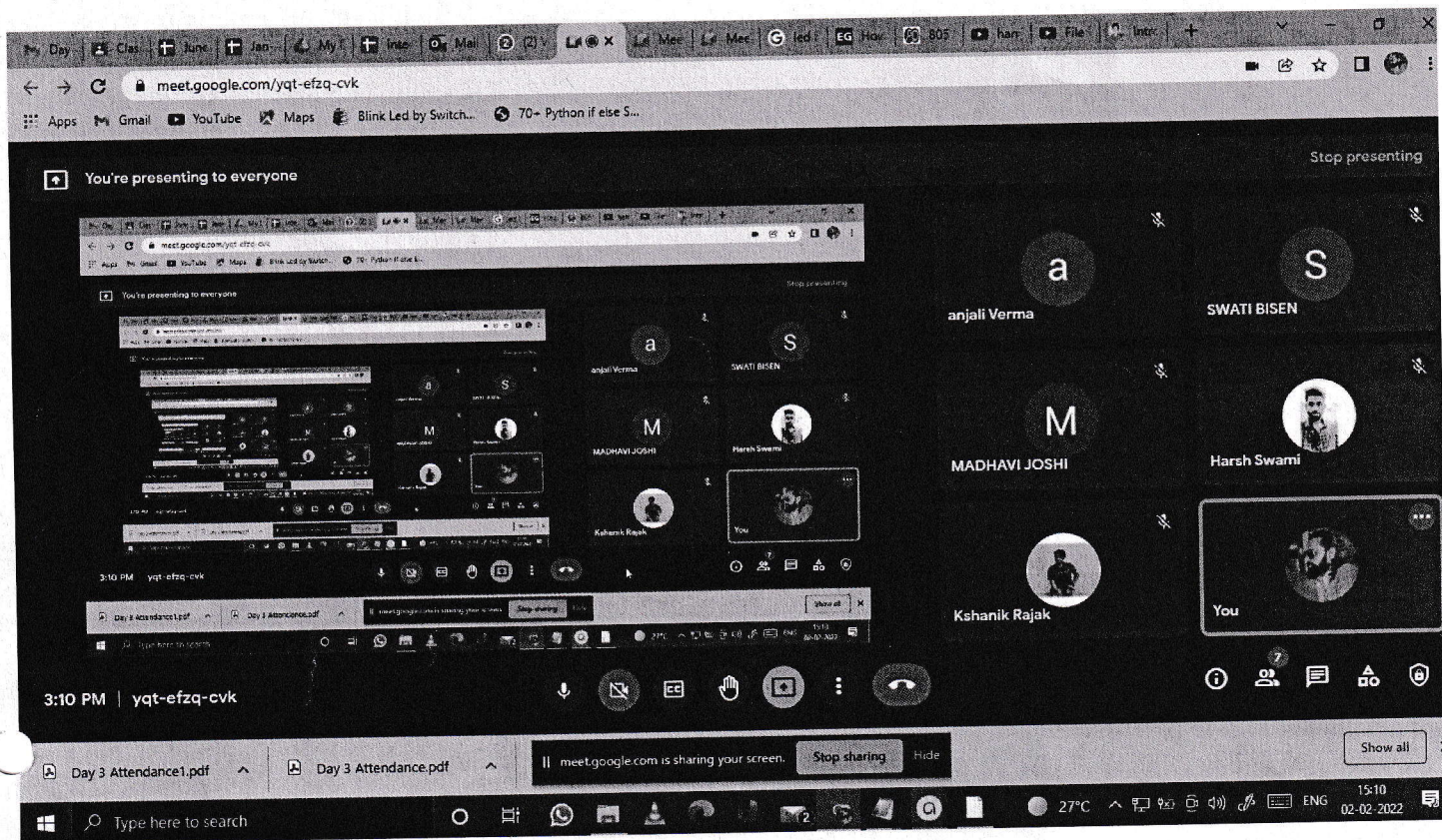
*[Handwritten Signature]*



**INDORE INSTITUTE OF SCIENCE AND TECHNOLOGY**  
**ELECTRONICS AND COMMUNICATION DEPARTMENT**

			Jan-Feb-20222										
S.N	NAME	Roll No.	31	1	2	3	4	7	8	9	10	11	
1	AARTI NAGAR	0818EC181001	P	P	A	P	P	P	P	P	P	A	
2	ANJALI VERMA	0818EC181002	P	P	P	p	P	P	P	P	A	A	
3	HARSH SWAMI	0818EC181003	A	P	P	P	P	P	P	P	P	A	
4	JAIBHAN SINGH GAUR	0818EC181004	P	P	P	P	P	A	P	P	P	A	
5	KSHANIK RAJAK	0818EC181005	P	P	P	p	A	P	A	A	A	A	
6	MADHAVI JOSHI	0818EC181006	P	P	P	P	A	P	P	P	P	P	
7	NAVEEN THAKUR	0818EC181007	P	A	P	P	P	P	A	P	A	P	
8	PRADEEP PUNJABI	0818EC181008	P	P	A	P	P	A	P	P	P	A	
9	RAKESH LAVVANSI	0818EC181009	A	P	P	P	A	P	P	P	P	A	
10	ROSHAN SANGULE	0818EC181010	P	A	P	P	P	A	P	P	A	P	
11	SWATI BISEN	0818EC181011	P	P	P	P	P	P	P	P	P	P	
12	YASHVEER MISHRA	0818EC181012	A	P	P	A	P	P	A	P	P	P	





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Meet - fqq-ofdz-rwh

classroom - Google Search

meet.google.com/fqq-ofdz-rwh

REC You're presenting to everyone

Stop presenting

Madhavi Joshi

Kshanik Rajak

SWATI BISEN

anjali Verma

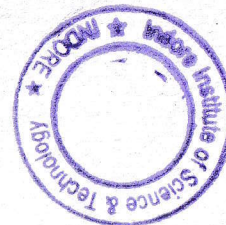
You

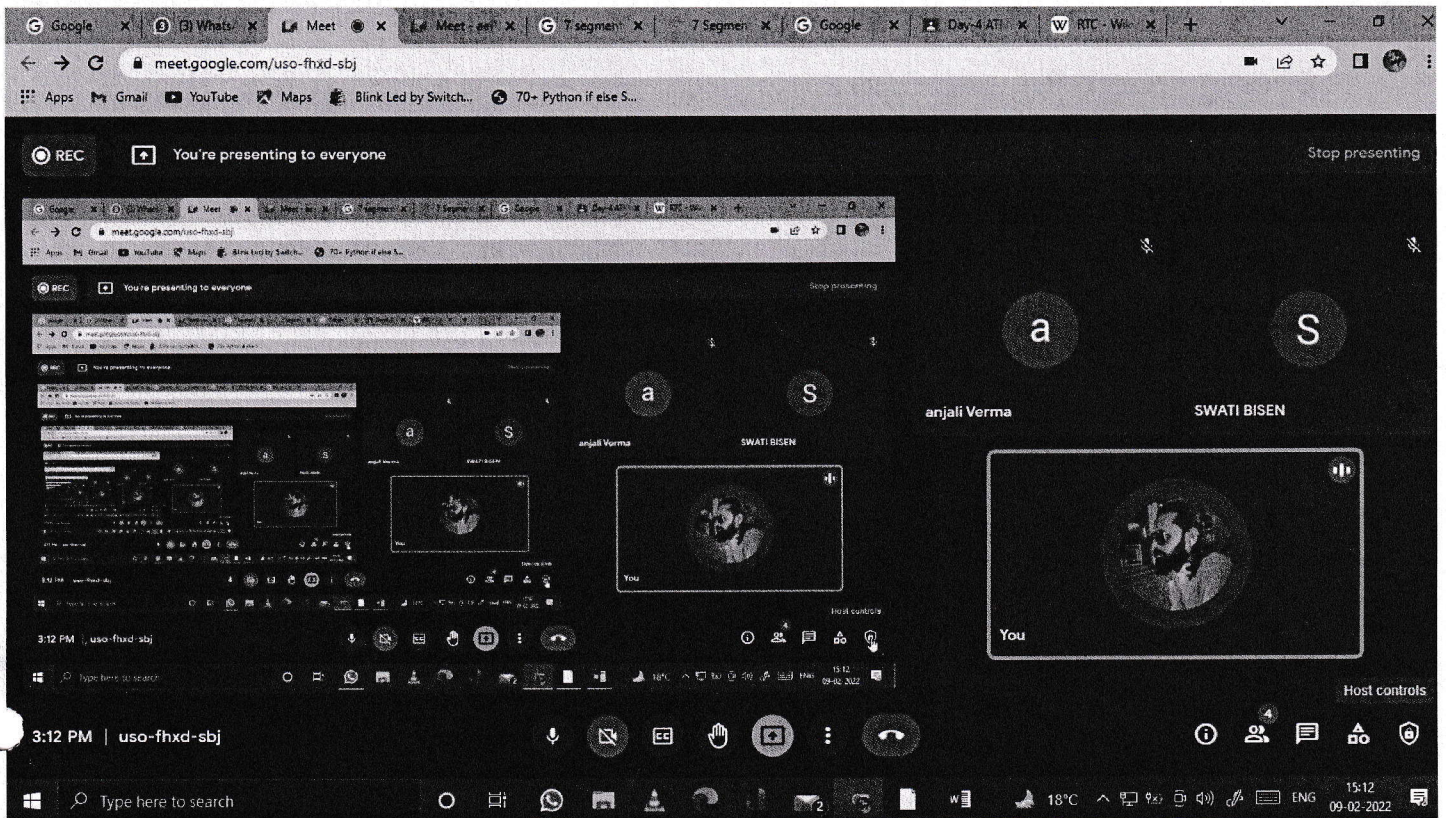
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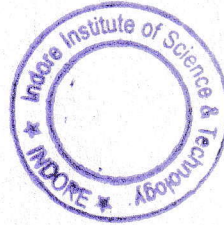
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*[Handwritten signature]*



# Project Skills Development - Test

10 Feb-2022

\* Required

1. Email \*

---

2. Applicant Full Name \*

---

3. Applicant Contact Number \*

---

4. Enrollment Number \*

---

5. 1) What is the role of Big Data in IoT's Smart Grid architecture?

*Mark only one oval.*

- ☐ Filter the data
- ☐ Locked the data
- ☐ Store data
- ☐ None of the these



A handwritten signature in blue ink, appearing to be "Adarsh".

6. 2) What is the real example of a smart grid device in IoT?

Mark only one oval.

- ☐ Mobile phone
- ☐ Television
- ☐ Smart Speaker
- ☐ Smart Meters

7. 3) What is the full form of the MQTT?

Mark only one oval.

- ☐ Multi-Queue Telemetry Things
- ☐ Multiple Queue Telemetry Things
- ☐ Message Queue Telemetry Things
- ☐ Message Queue Telemetry Transport

8. 4) Which of the following frequencies is correct for the Galileo gen 2 board?


Mark only one oval.

- ☐ 250 MHz
- ☐ 400 MHz
- ☐ 450 MHz
- ☐ 300 MHz

9. 5) What is the standard port number of secure MQTT?

Mark only one oval.

- ☐ 1883
- ☐ 8000
- ☐ 8883
- ☐ 8888



10. 6) Which of the following layers provides end-to-end communication in IoT?

Mark only one oval.

- ☐ Logical layer
- ☐ Data link layer
- ☐ Transport layer
- ☐ Session layer

11. 7) Which of the following devices is used to measure the gases or liquid?

Mark only one oval.

- ☐ Optical Sensor
- ☐ Gas Sensor
- ☐ Smoke Sensor
- ☐ Pressure sensor

12. 8) Which interface does the fingerprint sensor use?

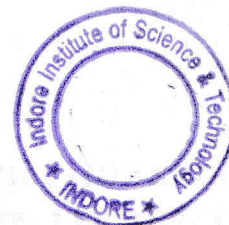
Mark only one oval.

- ☐ UART interface
- ☐ CoAP interface
- ☐ SPI interface
- ☐ I2P interface

13. 9) Which of the following "bit" defines the address bit in the control register?

Check all that apply.

- ☐ ML
- ☐ MM
- ☐ RXWake
- ☐ None of the these



14. 10) What is another name for I2C?

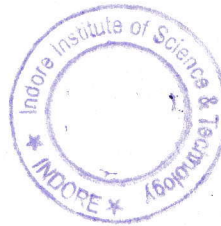
Check all that apply.

- ☐ Signal wire interface
- ☐ UART
- ☐ Two wire interfaces
- ☐ USART

---

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Google Forms



A handwritten signature in blue ink, appearing to be "A. J. Chaudhary".

# Project Skills Development - Test

12 responses

## Applicant Full Name

12 responses

Swati Bisen

Naveen Thakur

Aarti Nagar

Anjali verma

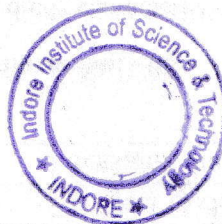
Roshan Sangule

Jaibhan Singh Gaur

Pradeep Punjabi

Harsh Swami

Yashveer Mishra



A handwritten signature in blue ink, appearing to read "Aarti Nagar".



## Applicant Contact Number

12 responses

9617575726

7089396234

7049285727

7415492415

8720049752

+917974458718

+919685675196

6260035918

7000634370

## Enrollment Number

12 responses

0818ec181011

0818EC181007

0818EC181001

0818ec181002


0818EC181010

0818EC181004

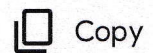
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0818ec181003

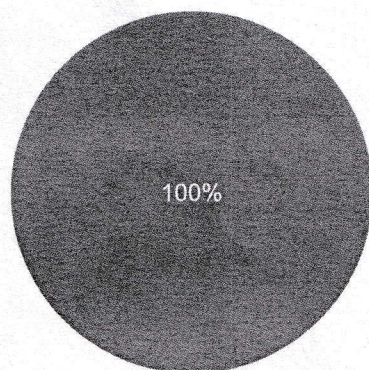
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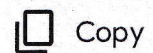


12 responses

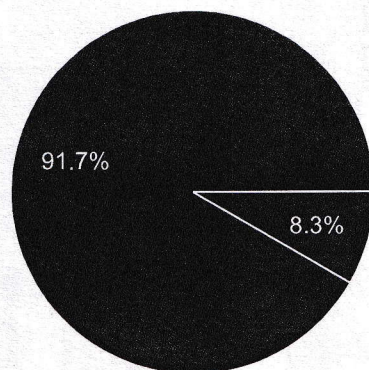


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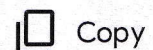


12 responses

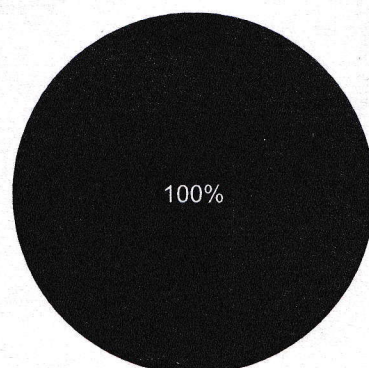


- Mobile phone
- Television
- Smart Speaker
- Smart Meters

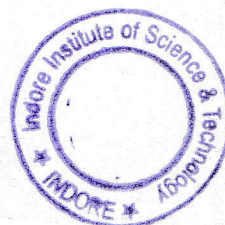
3) What is the full form of the MQTT?



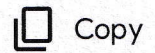
12 responses



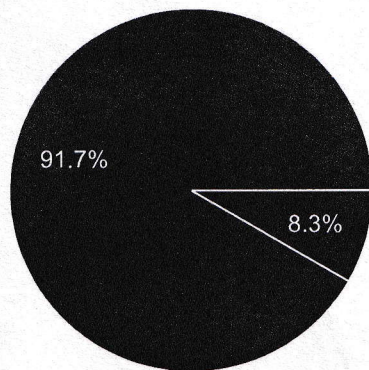
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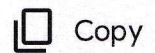


12 responses

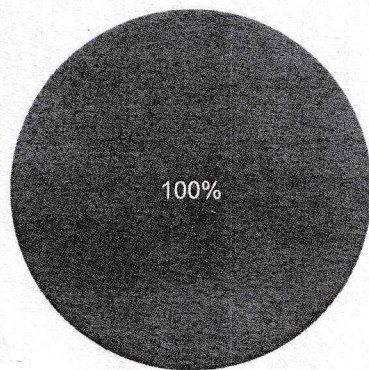


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- 400 MHz
- 450 MHz
- 300 MHz

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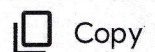


12 responses

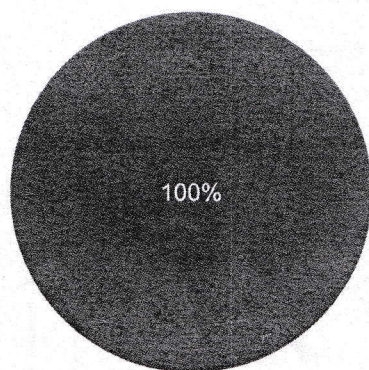


- 1883
- 8000
- 8883
- 8888

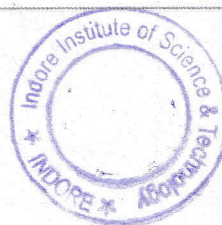
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12 responses



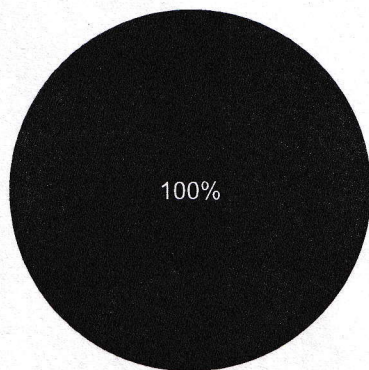
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- Data link layer
- Transport layer
- Session layer



7) Which of the following devices is used to measure the gases or liquid?


 Copy

12 responses

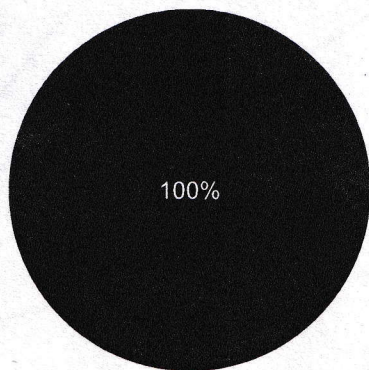


- Optical Sensor
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8) Which interface does the fingerprint sensor use?


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12 responses

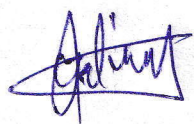
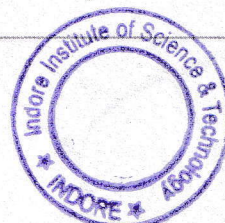
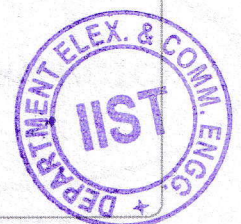
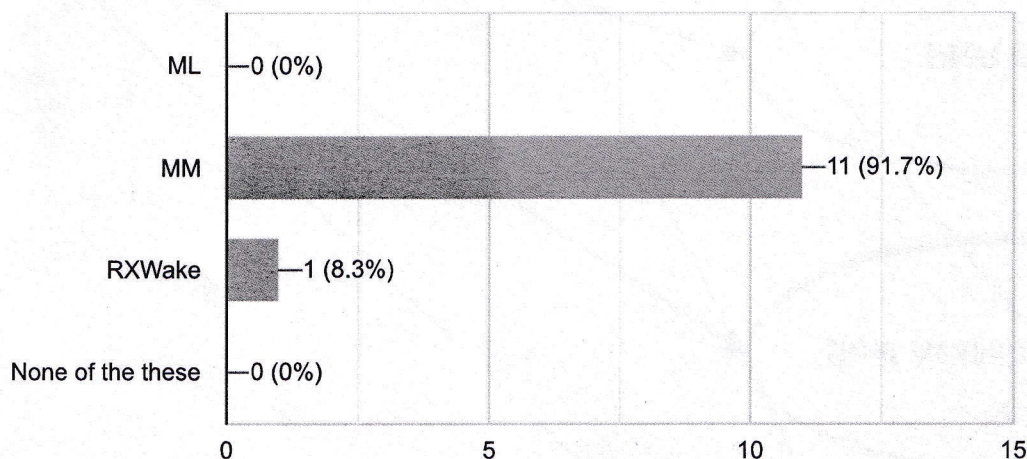


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 Copy

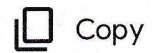
12 responses



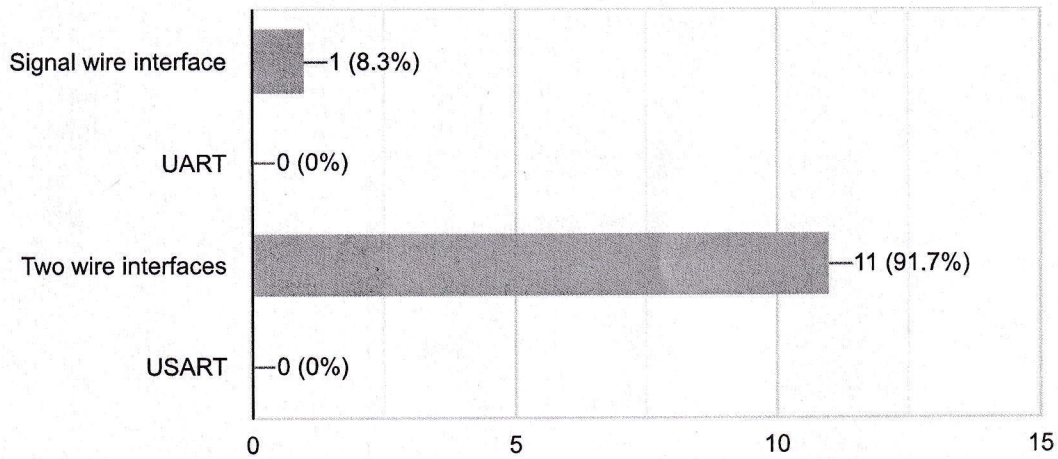
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10) What is another name for I2C?



12 responses



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Google Forms




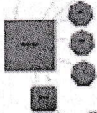

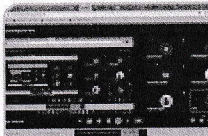
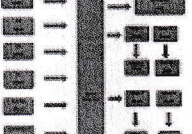



# Hydroponic System Using IoT ESP-32



Ravi Yadav • Feb 2

## Project Report

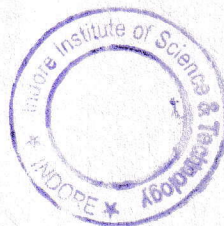
	IoT Based Automated ... PDF		hdr.docx Word
	Screenshot (475).png Image		Screenshot (474).png Image
	HR.docx Word		list of componatns.txt Text



## Class comments



Add class comment...





Instructions

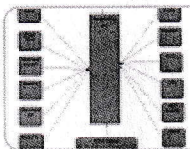
Student work

# Day-7 ATM Security System Using RPI Introduction & Attendance

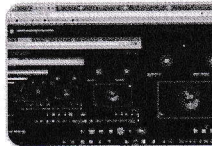
Ravi Yadav • Feb 9

100 points

Bolck Diagram



Doc1.docx  
Word



Screenshot (498).png  
Image

Class comments





# Day-4 ATM Security System Using RPI

## Introduction & Attendance



Ravi Yadav • Feb 3

Topic :-

ATM Security System Using RPI

1. Software System
2. Hardware System
3. Secure Bank Server

Features

Input:-

1. Keypad
2. Finger Print
3. Rfid Card Reader
4. Camera
5. TouchScreen
6. Sensor

Output:-

1. LCD Display
2. Speaker
3. Alarm
4. Gsm
5. Note Counter
6. Servo
7. Thermal Printer

Controlling Unit :- Raspberry Pi



Screenshot (479).png  
Image



Screenshot (478).png  
Image



Screenshot (477).png  
Image



Class comments



Add class comment...



## Hydroponic System Using IoT ESP-32



Kshanik Rajak

Turned in



Return



IoT Based Au ... tem.docx.pdf

Open with Google Docs



### Abstract

The word hydroponics has its derivation from the combination of two Greek words, hydro meaning water and ponos meaning labour, i.e., working water. Hydroponics used to be considered a system where there was no growing media at all, such as the nutrient film technique in vegetables. But today it's accepted that a soilless growing medium is often used to support the plant root system physically and provide for a favourable buffer of solution around the root system. The system that is used will be automated to prevent many disadvantages of having a manual system.



Page 5 / 33



### Files

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See history

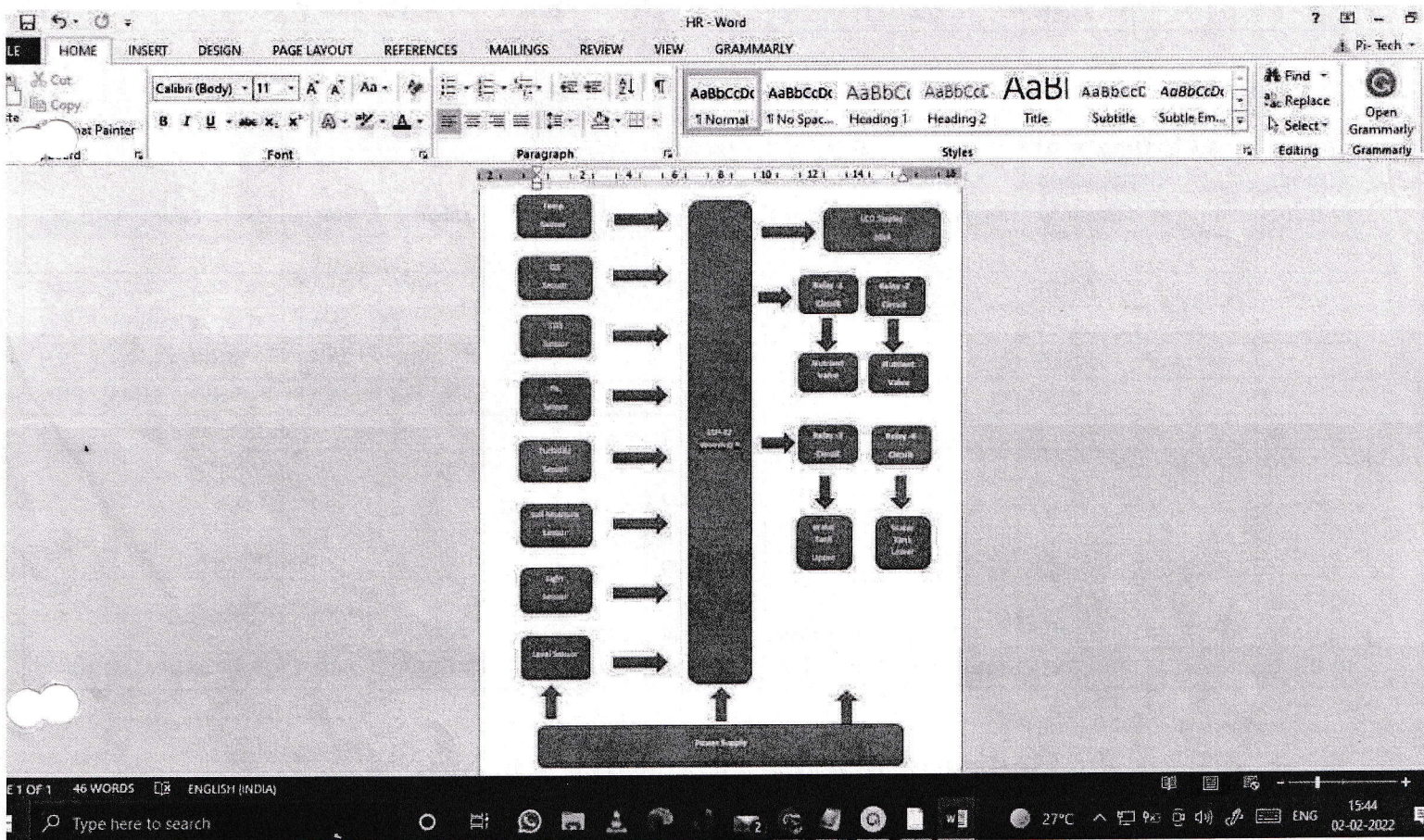
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- list of componatns.txt
- Copy of Screenshot (475)....
- hdr.docx
- HR.docx

### Grade

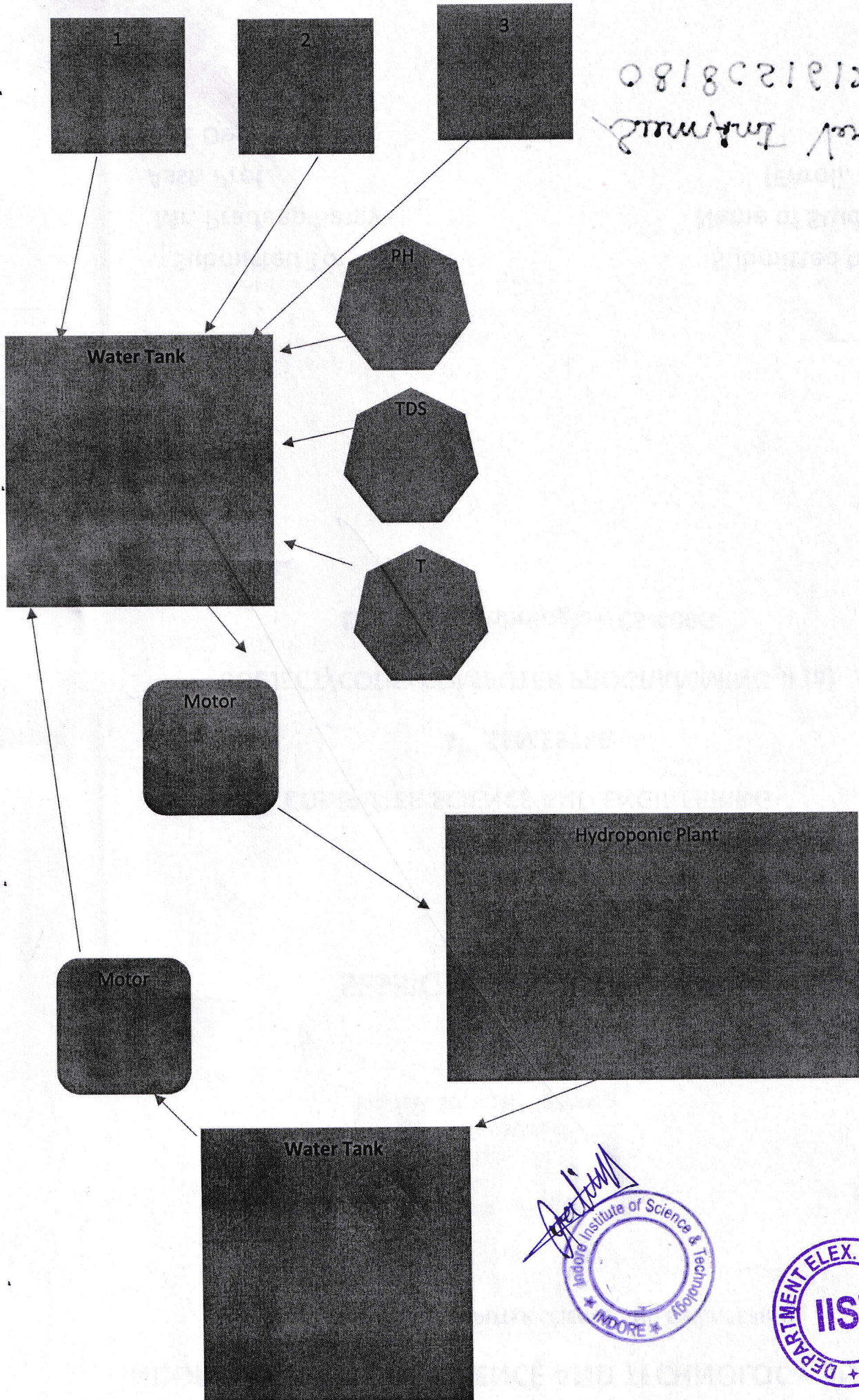
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5/11/2022



081802101511  
Sonal Institute




# Hydroponic System Using IoT ESP-32


 **SWATI BISEN**

Turned in



Return


```
list componatens
Hydroponic system sensors
Ph
Turbidity
Temp
Oxygen
TDS
Soil moisture
Ldr
Level sensor
motor - 2
water tank - 1
hydroponic plant - 1
```






**Files**  
Turned in on Feb 2, 7:56 PM  
See history

 list of componatn... 

 IMG-20220202-WA0016.jpg

 IoT Based Automated Hyd...

**Grade**

/100

**Private comments**

Add private comment...

**list componatens**

**Hydroponic system sensors**

**Ph**

**Turbidity**

**Temp**

**Oxygen**

**TDS**

**Soil moisture**

**Ldr**

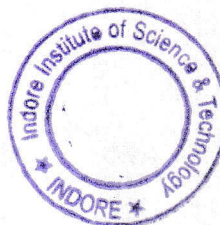
**Level sensor**

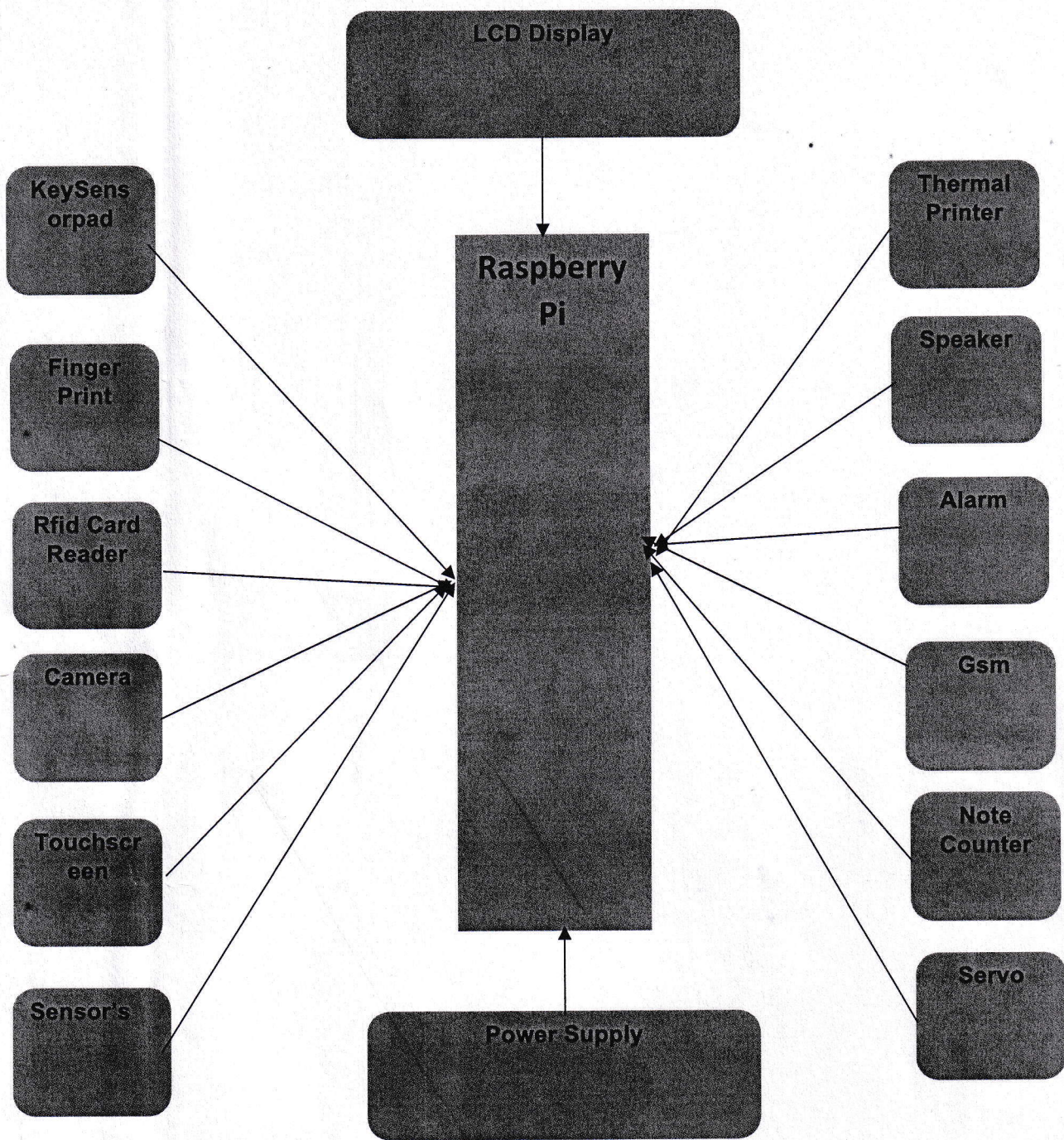
**motor - 2**

**water tank - 1**

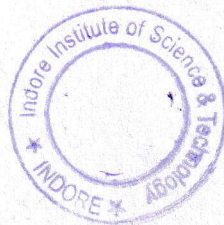
**hydroponic plant - 1**

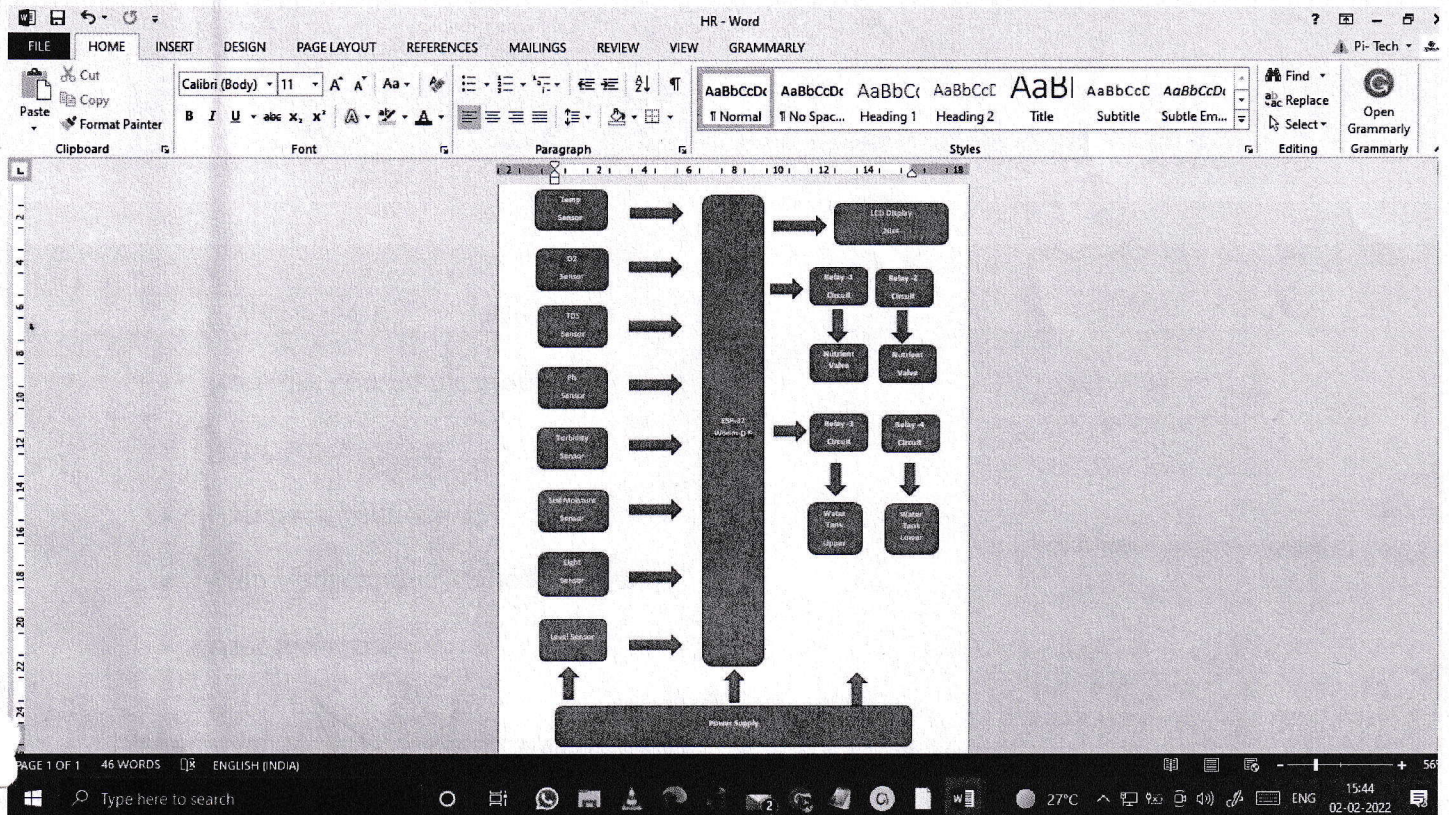
*[Handwritten signature]*





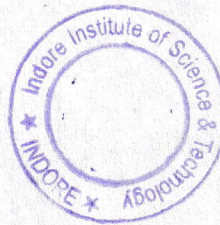

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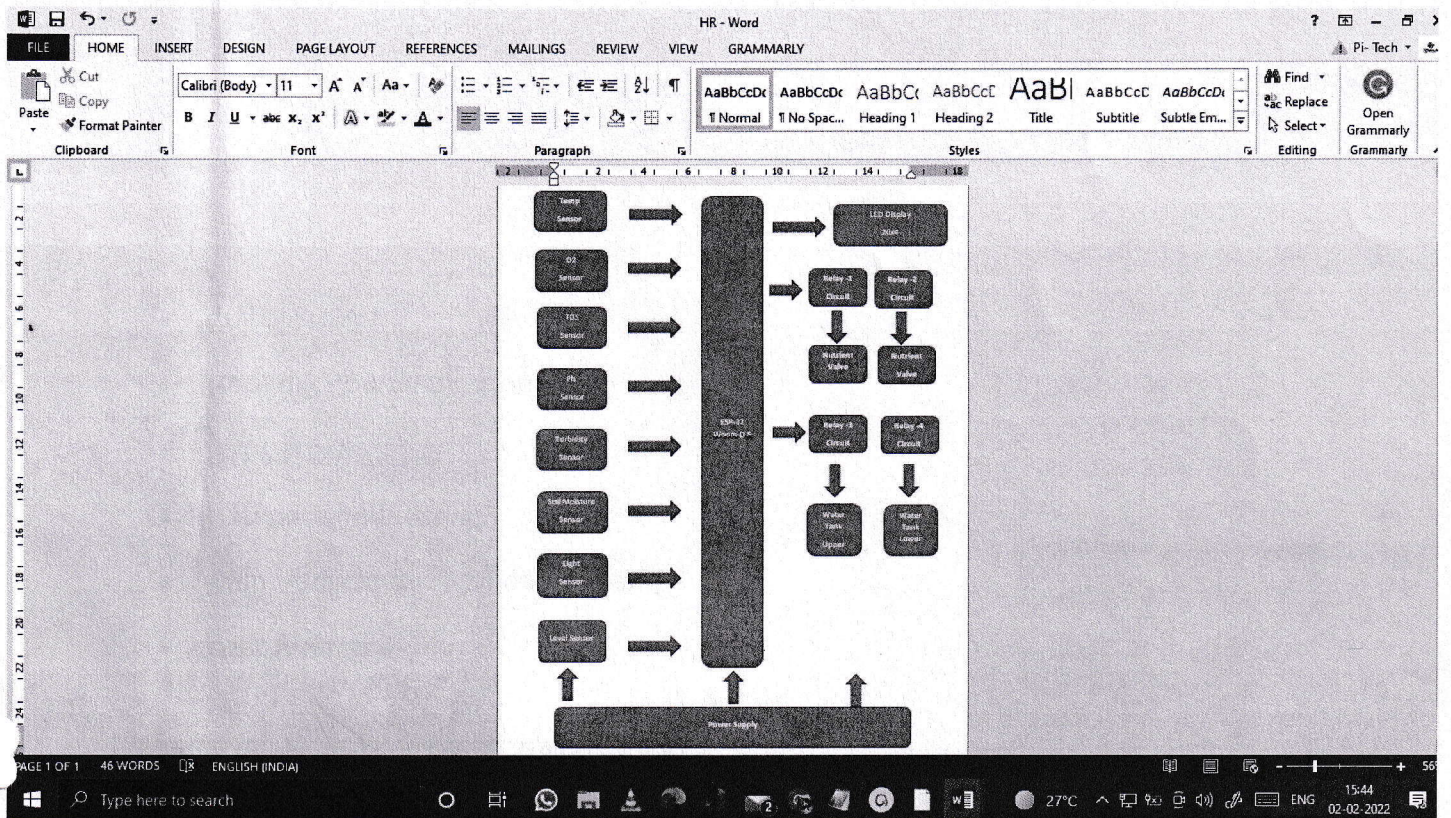




## Abstract

The word hydroponics has its derivation from the combination of two Greek words, hydro meaning water and ponos meaning labour, i.e., working water. Hydroponics used to be considered a system where there was no growing media at all, such as the nutrient film technique in vegetables. But today it's accepted that a soilless growing medium is often used to support the plant root system physically and provide for a favourable buffer of solution around the root system. The system that is used will be automated to prevent many disadvantages of having a manual system.





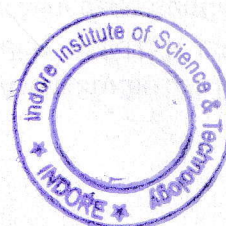
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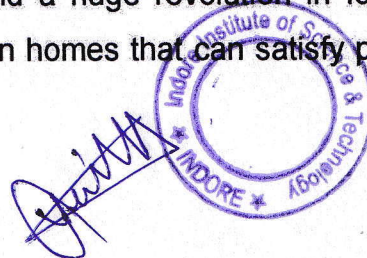


## Introduction:-

The world population is increasing every day and it is expected to reach 9.3 billion in 2050 . Therefore, crop production has to be increased in order to maintain a sufficient amount of food. However, the production of crops is affected by many factors like the unusual weather changing, lack of water and the lack of sufficient arable lands available to grow the crops. As a result, people started to use different methods of farming to reduce water consumption and the space for farming, one of the most famous methods is vertical hydroponic farming. Vertical hydroponic farming is a combination of two old methods, which are vertical method and hydroponic method.

These methods are old, but recent research and studies by scientists worldwide have proved its usefulness . The hydroponic system is a method that depends on growing the plants in the water without the use of soil, it has been proved that the plants do not need soil as long as the essential nutrients, minerals and the suitable pH are maintained stable within a certain range inside the water. There are different types of hydroponic systems that are known, such as the wick system, drip system, nutrient film technique (NFT), deep flow technique, and aeroponic system.

The hydroponic systems are currently developed to solve the problems that affect the plant growth by controlling all the parameters automatically, which made it possible to make an indoor farming without consuming large space of land. The automatic vertical hydroponic systems portend a huge revolution in food production, where different kinds of crops can be grown in homes that can satisfy peoples' needs.



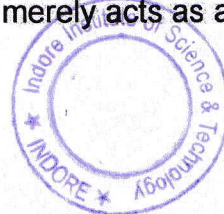
Gulf countries have experienced large demographic growth in the recent years. This considerable growth requires a local increase in agricultural productivity to maintain a sufficient amount of food that satisfies the population needs. Generally, agriculture is a strategic sector in such countries since it has a crucial role in food security and reduces dependency on imports. Clearly, such countries depend on imports to meet 90% of its food and water consumption needs. Importantly, Qatar depends on imports due to its limited arable lands, low rainfall, dry and hot climate, scarcity of groundwater and high evaporation rates. Indeed, there has been a slight increase in the percentage of arable land over the years, Figure 1A, and currently 6% of the total Qatar territory is arable, which is about 650 km<sup>2</sup> or 65,000 hectares in Figure 1B. The local market needs 2, 260,000 t of vegetables in a year, whereas the agricultural land is a very small share of the total land, being 6% of the total land.

Hydroponics is a method of growing crops without soil. Plants are grown in rows or on trellises, just like in a traditional garden, but they have their roots in water rather than in dirt. Most of us confuse soil with nutrients. In fact, soil provides structure, not the actual food itself, for plant roots.

The food comes from other materials mixed in the soil, such as compost, broken-down plant waste or fertilizers. Plants grown hydroponically can actually grow faster and healthier than plants in soil because they don't have to fight soilborne diseases; in addition, all the food and water they need are given directly to their roots around the clock.

Growing plants hydroponically doesn't have to be done on a large scale, and it's easier than you might think. Now there are kits, do-it-yourself systems and even fully automated growing tables, all designed for home gardeners. The word hydroponics has its derivation from the combination of two Greek words, hydro meaning water and ponos meaning labor, i.e., working water. The ability to produce crops hydroponically would no longer be "chained to the soil" but certain commercial crops could be grown in larger quantities without soil in basins containing solutions of plant food.

Hydroponics used to be considered a system where there was no growing media at all, such as the nutrient film technique in vegetables. But today it's accepted that a soilless growing medium is often used to support the plant root system physically and provide for a favourable buffer of solution around the root system. Hydroponics is very simple -- in many ways, it's simpler than growing plants in soil. Plants need food, water and air. When you break it down to those three things, it becomes simple to give plants only what they need. Hydroponics is the science of growing plants without soil. The plants thrive on the nutrient solution alone; the medium merely acts as a support for



the plants and their root systems.

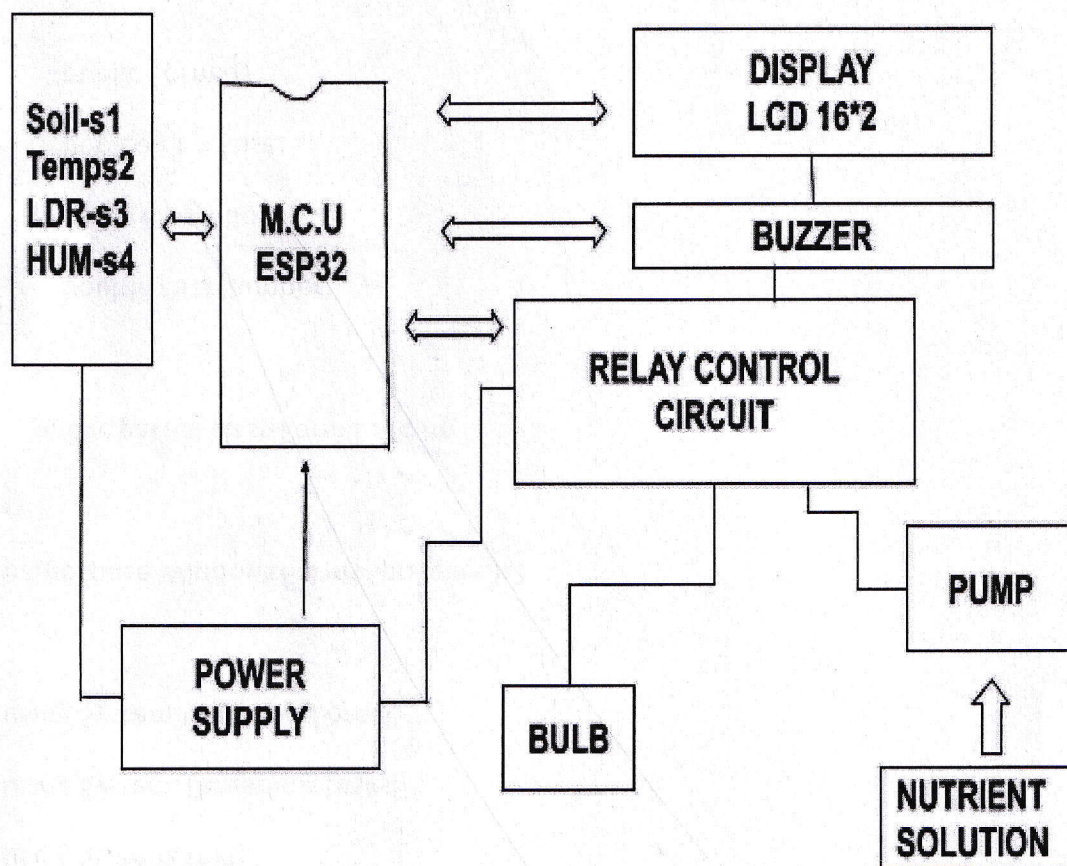
## Literature Survey:-

In this, we have discussed different hydroponic systems such as an Ebb and flow system, Water culture, aeroponics, wick system and Nutrient film technique. In this project Nutrient film technique has been implemented. Parameters such as temperature and humidity are controlled by Arduino. Systems with IoT devices have hardware characteristics identical with less power, less processing power, less memory, even the communication resources are called resource constrained devices. It is one of the advantages as well as disadvantage in developing IoT technology systems. This study is to implement IoT communication, by using Cloud based subscribe and publish method. The need of combining the Cloud computing with IoT system is to combine things, this will help to manage the messages of every device; to gather and organize data or information through the middleware layer; and through application layer, end user can monitor and control or set the parameters of the IoT in the Cloud based approach, Cloud computing acts as a control center.

In this we have three nodes of system explained about Computers or mobile applications to control the system. In their system, every node is integrated with various devices, sensors and they are interconnected to one central server via wireless communication modules. Server role is to transmit and receive information from the user end using internet connectivity. In the system there are 2 modes of operation; manual mode and auto mode. The auto mode system makes decisions automatic and controls the devices installed whereas in manual mode users have freedom to control the operations of the system using PC commands or android apps. It analyzes the problems of new IoT methods and usage in general in the area of agriculture/ or farming. Our key goal is to analyze the current state of IoT and its areas of potential in rural development and agriculture. It targets to compile systematic approaches, where the most critical ones in terms of project solution are: By evaluating & defining selected platforms appropriate use in IoT Analyzing protocols and standards useful in IoT



Mentioning the trends and chances for development for IoT in farming rural and sector development Analyzing the knowledge obtained and proposing right steps of confirmation by establishing correct prototypes of model solution for hardware parts and software of IoT.



### **Block diagram of IoT Based Automated Hydroponics System**

In the block diagram, we can see that Four sensors are used namely, Soil moisture sensor for checking the moisture of soil, Light intensity sensor for checking the Sun light intensity, Temperature sensor for temperature(\*c) and humidity(gm/m3) & Circuit to measure the conductivity of the water level.

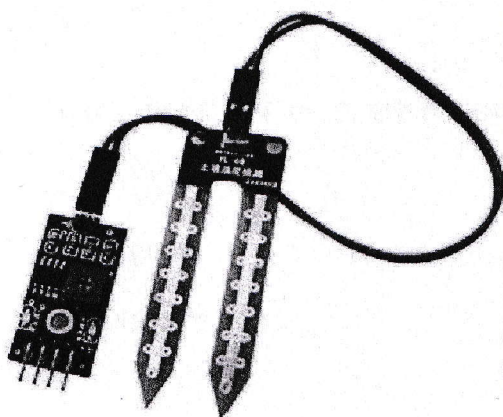


For communication Single bus data format is used and synchronization between DHT11 and MCU sensors. One communication process takes about 4ms. Data consists of integral and decimal parts. A complete data transmission is of 40bit , and the sensor sends higher data bits first. Data format: 8bit integral humidity data + 8bit decimal humidity data + 8bit integral temperature data + 8bit decimal temperature data + 8bit checksum (Error bits). If the data transmission is right, the check-sum should be the last 8bit of "8bit integral humidity data + 8bit decimal humidity data + 8bit integral temperature data + 8-bit decimal temperature data". All these sensors are interfaced to an open source Node-MCU (ESP32) which will act as a microcontroller. This microcontroller is also interfaced with 3.3V power supply. Pump, Bulb & Dispenser are being controlled by the Node-MCU for efficient working of the system. All this information is being sent for free online platform Thingspeak. The controlling of the whole system is automated using NodeMCU (Controller) and IoT. However, there is manual controlling provision through just giving the power supply and presence of internet connection.

## 2. Soil moisture sensor:-

Soil moisture sensors measure the volumetric water content in soil.<sup>[1]</sup> Since the direct gravimetric measurement of free soil moisture requires removing, drying, and weighing of a sample, soil moisture sensors measure the volumetric water content indirectly by using some other property of the soil, such as electrical resistance, dielectric constant, or interaction with neutrons, as a proxy for the moisture content.

The relation between the measured property and soil moisture must be calibrated and



may vary depending on environmental factors such as soil type, temperature, or electric conductivity. Reflected microwave radiation is affected by the soil moisture and is used for remote sensing in hydrology and agriculture. Portable probe instruments can be used by farmers or gardeners.



Soil moisture sensors typically refer to sensors that estimate volumetric water content. Another class of sensors measure another property of moisture in soils called water potential; these sensors are usually referred to as soil water potential sensors and include tensiometers and gypsum blocks

## 2. Light intensity sensor:-

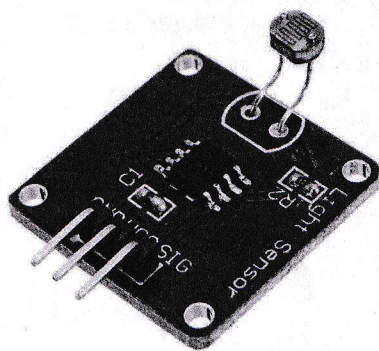
A Light Sensor is a device that detects light. It generates an output signal that is proportional to the intensity of light. A light sensor measures the radiant energy present in the wide range of frequencies in the light spectrum. Some of the common frequencies are infrared, visible and ultraviolet.

A Light Sensor is also called a Photo Sensor or Photoelectric Sensor as it converts light energy or photons into electrical signals.

There are different types of light sensors for different applications. A Photocell or Photoresistor is the common type of light sensor. A photo resistor changes its resistance when light is incident on it. Hence, a photo resistor is also called a Light Dependent Resistor or LDR. When there is no light, the resistance of LDR is very high.

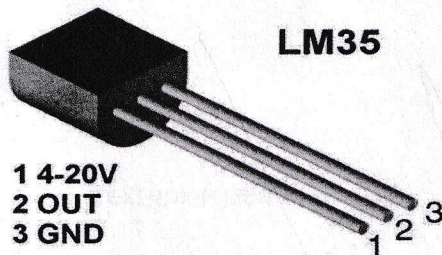
When there is a light incident on the LDR, its resistance decreases. There are a wide range of applications of light sensors.

The applications include scientific research to everyday residential applications like security systems, burglar alarms, garage door openers, solar tracking systems etc. In this project, a simple light sensor is designed using LDR. The project is built around Arduino. The circuit, components and working are mentioned in the following sections.



### 3. Temperature sensor:-

The Temperature Sensor LM35 series are precision integrated-circuit temperature devices with an output voltage linearly proportional to the Centigrade temperature.



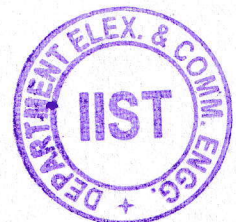
The LM35 device has an advantage over linear temperature sensors calibrated in Kelvin, as the user is not required to subtract a large constant voltage from the output to obtain convenient Centigrade scaling. The LM35 device does not require any external calibration or trimming to provide typical accuracies of  $\pm\frac{1}{4}^{\circ}\text{C}$  at room temperature and  $\pm\frac{3}{4}^{\circ}\text{C}$  over a full  $-55^{\circ}\text{C}$  to  $150^{\circ}\text{C}$

temperature range. You will see the temperature display on the serial port monitor which is updated every second.

### 4. Humidity Sensor:-

The DHT11 humidity sensor makes it really easy to add humidity and temperature data to my electronics projects. It's perfect for remote weather stations, home environmental control systems, and farm or garden monitoring systems.

Relative humidity is the amount of water vapor in air vs. the saturation point of water vapor in air. At the saturation point, water vapor starts to condense and accumulate on surfaces forming dew. The saturation point changes with air temperature. Cold air can hold less water vapor before it becomes saturated, and hot air can hold more water vapor before it becomes saturated.

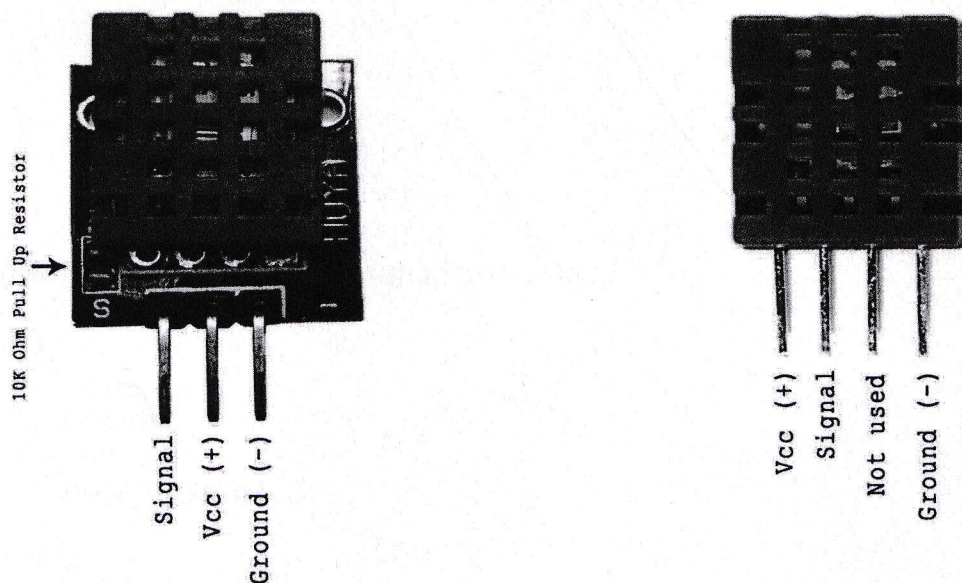


The Humidity Sensor detects water vapor by measuring the electrical resistance between two electrodes. The humidity sensing component is a moisture holding substrate with electrodes applied to the surface.

When water vapor is absorbed by the substrate, ions are released by the substrate which increases the conductivity between the electrodes. The change in resistance between the two electrodes is proportional to the relative humidity. Higher relative humidity decreases the resistance between the electrodes, while lower relative humidity increases the resistance between the electrodes.

The DHT11 uses just one signal wire to transmit data to the Arduino. Power comes from separate 5V and ground wires. A 10K Ohm pull-up resistor is needed between the signal line and 5V line to make sure the signal level stays high by default (see the datasheet for more info).

There are two different versions of the DHT11 you might come across. One type has four pins, and the other type has three pins and is mounted to a small PCB. The PCB mounted version is nice because it includes a surface mounted 10K Ohm pull up resistor for the signal line.



## **Software Interfaces:-**

### **1. Arduino:-**

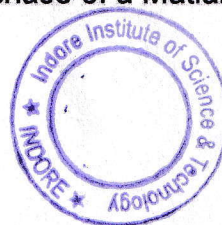
Arduino is an open-source electronics platform based on easy-to-use hardware and software. Arduino boards are able to read inputs - light on a sensor, a finger on a button, or a Twitter message - and turn it into an output - activating a motor, turning on an LED, publishing something online. You can tell your board what to do by sending a set of instructions to the microcontroller on the board. To do so you use the Arduino programming language (based on Wiring) and the Arduino Software (IDE), based on Processing. Arduino was born at the Ivrea Interaction Design Institute as an easy tool for fast prototyping, aimed at students without a background in electronics and programming. As soon as it reached a wider community, the Arduino board started changing to adapt to new needs and challenges, differentiating its offer from simple 8-bit boards to products for IoT applications, wearable, 3D printing, and embedded environments. All Arduino boards are completely open-source, empowering users to build them independently and eventually adapt them to their particular needs. The software, too, is open-source, and it is growing through the contributions of users worldwide.

### **2. Thingspeak:-**

According to its developers, "ThingSpeak is an open-source Internet of Things (IoT) application and API to store and retrieve data from things using the HTTP and MQTT protocol over the Internet or via a Local Area Network.

ThingSpeak enables the creation of sensor logging applications, location tracking applications, and a social network of things with status updates". ThingSpeak was originally launched by ioBridge in 2010 as a service in support of IoT applications.

ThingSpeak has integrated support from the numerical computing software MATLAB from MathWorks, allowing ThingSpeak users to analyze and visualize uploaded data using Matlab without requiring the purchase of a Matlab license from



Mathworks. ThingSpeak has a close relationship with Mathworks, Inc. In fact, all of the ThingSpeak documentation is incorporated into the Mathworks' Matlab documentation site and even enabling registered Mathworks user accounts as valid login credentials on the ThingSpeak website. The terms of service and privacy policy of ThingSpeak.com are between the agreeing user and Mathworks, Inc.

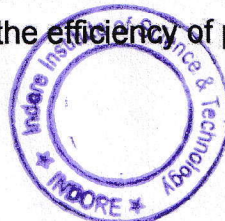
### **Analysis approaches:-**

With the increasing population growth and industrialization, the world is facing a food crisis due to the decreasing amount of arable lands. Over a decade, researches have been conducted to find a sustainable solution to increase crop production and reduce water consumption and required land. In 1930, W.E. Gericke first introduced a new method called hydroponics, where plants are cultivated using a nutrient solution without a solid medium for rooting.

The hydroponic system uses only 10% of the total water resources used in conventional cultivation methods, which can reduce the total water consumption by 5–20 times and land requirements by more than 75% for agriculture. Even though the cost for installing hydroponic systems can be ten times higher in comparison to the traditional agriculture production, this type of systems allows to control the nutrition required for the plants as roots are in direct contact with the nutrition solution.

Many unfavorable aspects of the soil cultivation like plants affected by the soil borne diseases, lack of soil nutrients, and water can be avoided in the hydroponics system. As there are many advantages of the hydroponic system, a cost-effective system is required for large scale cultivation. There are different techniques of hydroponics systems, such as: wick, drip, ebb-flow, water culture, nutrient film, and aeroponic.

After extensive literature review, nutrient film technique (NFT) has been selected for this research. It is necessary to monitor and control the parameters like humidity, soil moisture, Light, temperature of the surroundings, and water level of the container to ensure the stable and healthy growth of the plants. In this research, we have implemented an automatic hydroponic system by using the internet of things (IoT) platform to realize automatic control to improve the efficiency of planting, precise control



## Methodology:-

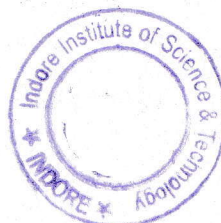
The seed of the desired crop is used and placed in the crop bed in phase-2 manually. A domestic power source is used to power the system. The user can select the crop that is to be planted from his own which is then connected through IoT. After the crop selection is done, the water is pumped from the pump motor to the automatic nutrient soil, the water pump stops pumping once the water level is reached. Here the water is mixed with the nutrients in inappropriate proportions according to the selected crop. After the completion of this process the pump stops.

Users can also see the level of nutrients present in water at Thingspeak. The nutrient rich water is then flowed through the pH tank with the help of solenoid valves. The user is notified once the pH tank is filled with the nutrient rich water. The pH tank has a pH sensor which monitors the pH of the water. If the pH of water is undesirable, then the system sends an alert to the user that pH is not in the correct proportion and asks the user to enable the solenoid valve S2 with 'YES' or 'NO'. If the answer is 'YES' then the solenoid valve S2 opens and the water is poured out to reuse the tank. If the pH of water is in the correct proportion then the water is ready to mix in the soil.

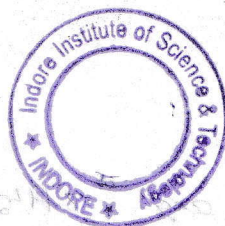
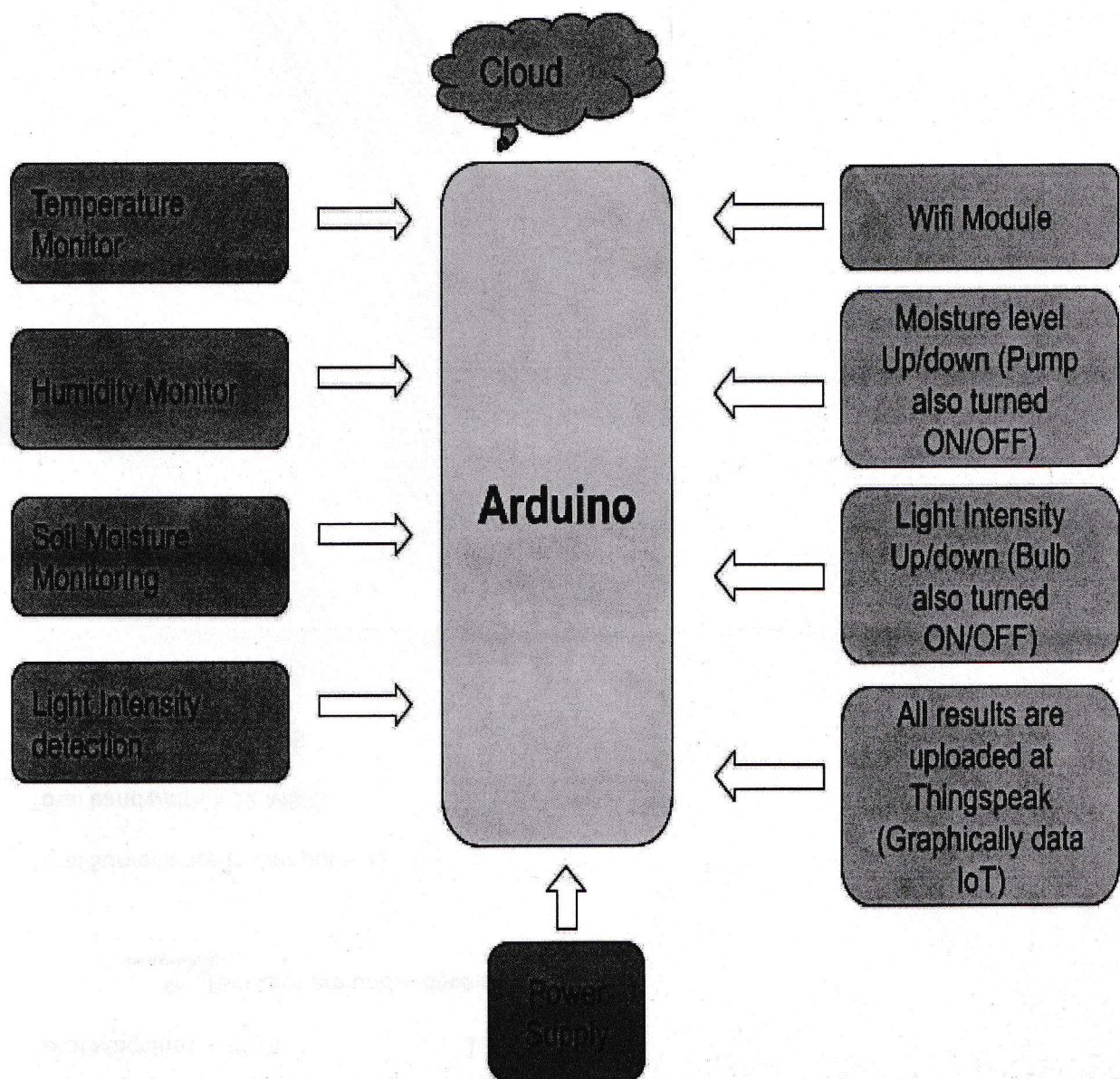
Once the water level is reached to the maximum the pump automatically off and the point notified at Thingspeak. Water pump is used to pump water to the plants as well as from the plants by this way the water is circulated. The light intensity, temperature and humidity of the environment is measured by a light, temperature and humidity sensor and the readings in graphical form are shown at Thingspeak which update in every 20 sec.

Normally a camera is used to monitor the growth of the plants and also looks for any infection on the plants. Once the plants are ready to harvest, the system sends the notification, your plant is ready to harvest.

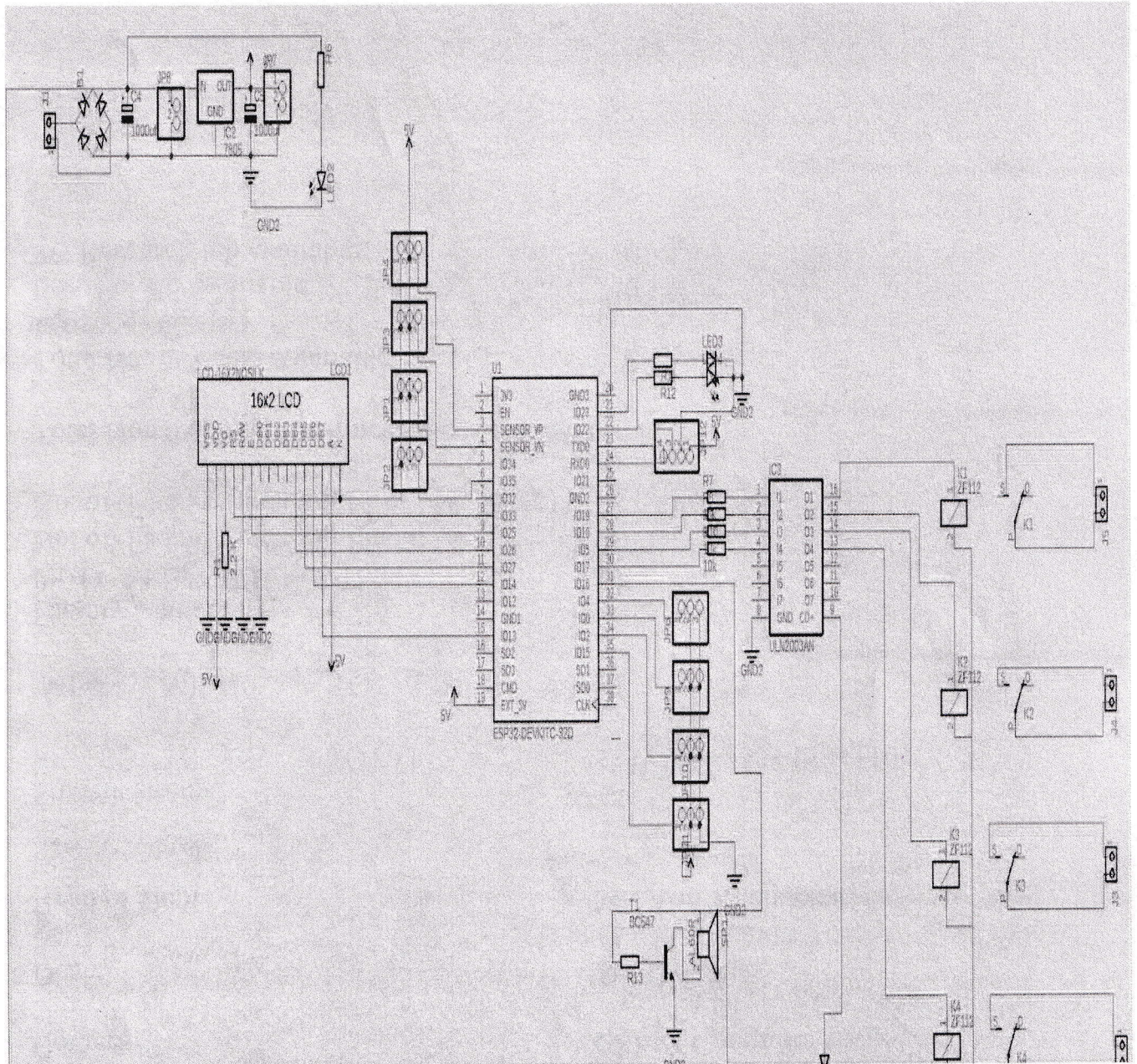
If every parameter which is necessary in healthy growth of plants is at correct values then the user is ready to harvest.



## Project overview:



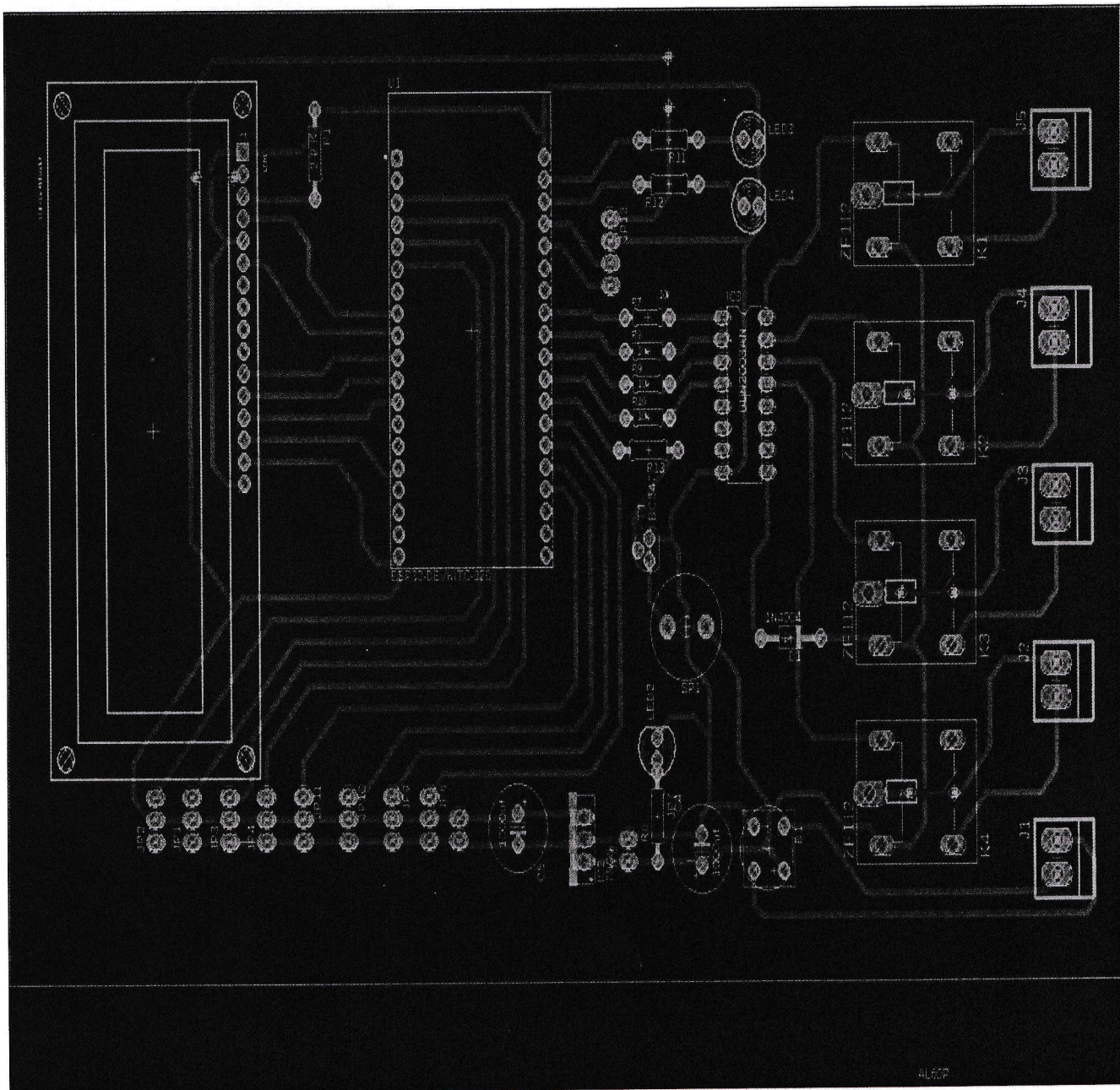
## Circuits diagram



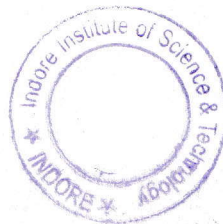
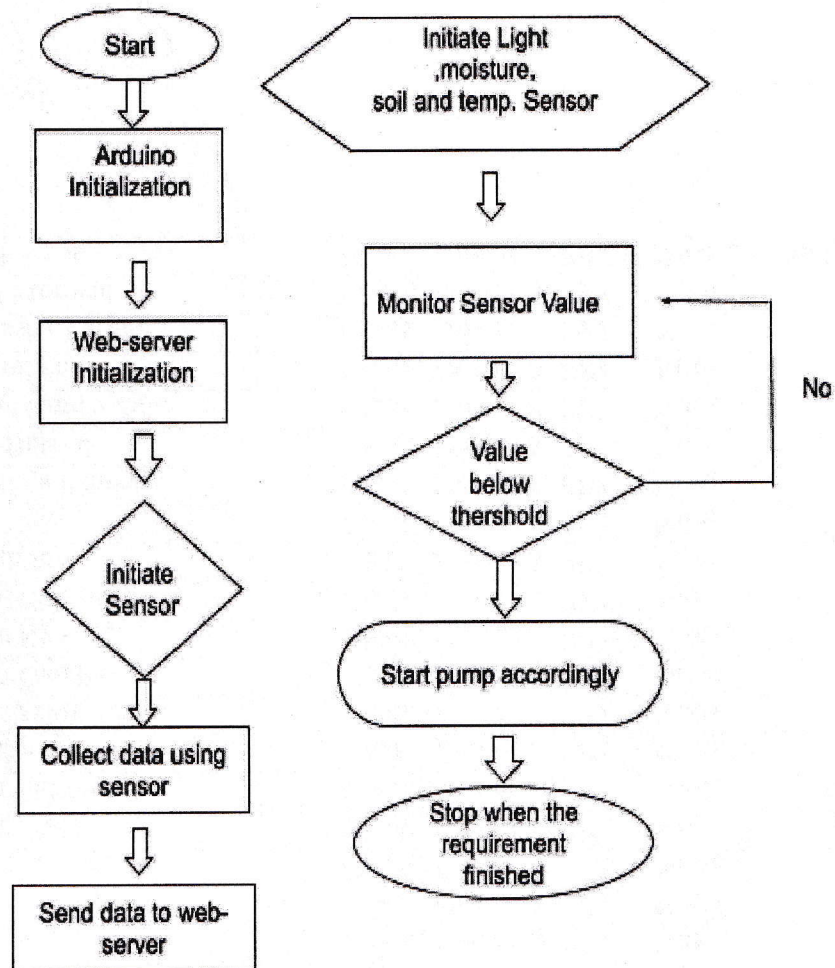
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PCB layout:



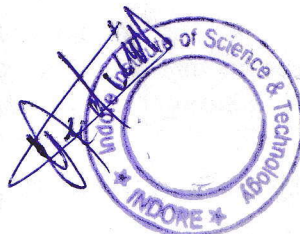
## Flowchart:



## Software Programming:-

```
#include <WiFi.h>
#include "ThingSpeak.h"
#include "DHT.h"
#include <LiquidCrystal.h>
#define DHTTYPE DHT11 // DHT 11
LiquidCrystal lcd(33, 25, 26, 27, 14, 13);
const int Ldr_sensor_pin=34;
const int Soil_Moisture_sensor_pin=35;
const int Temp_sensor_pin=36;
int Relay_Led_strip1_pin=17;
int Relay_Led_strip2_pin=5;
int Relay_Ac_Pump1_pin=18;
int Relay_Ac_Pump2_pin=19;
int Buzzer_pin=16;
int Ldr_sensor_pin_value=0;
int Soil_Moisture_sensor_pin_value=0;
int Temp_sensor_pin_value; // DHT Sensor
uint8_t DHTPin = 4; // Initialize DHT sensor.
DHT dht(DHTPin, DHTTYPE);
float Humidity;
int s1=0,s2,s3=0,s4=0,ss1=0,ss2=0,ss3=0,aa=100;

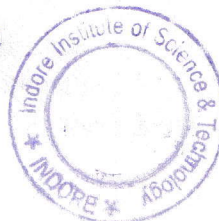
String apiKey = "15EQN7NKBDN4KY4U"; // Enter your Write API key from ThingSpeak
const char* ssid = "vivo 1951"; //Enter you Wifi SSID here
const char* pass = "12345678"; //Enter your password here
const char* server = "api.thingspeak.com";
WiFiClient client;
```



```

void setup()
{
    pinMode(Relay_Led_strip1_pin,OUTPUT);
    pinMode(Relay_Led_strip2_pin,OUTPUT);
    pinMode(Relay_Ac_Pump1_pin,OUTPUT);
    pinMode(Relay_Ac_Pump2_pin,OUTPUT);
    pinMode(Buzzer_pin,OUTPUT);
    pinMode(DHTPin, INPUT);
    digitalWrite(Relay_Led_strip1_pin,LOW);
    digitalWrite(Relay_Led_strip2_pin,LOW);
    digitalWrite(Relay_Ac_Pump1_pin,LOW);
    digitalWrite(Relay_Ac_Pump2_pin,LOW);
    lcd.begin(16, 2);
    lcd.setCursor(0, 0);
    lcd.print("IoT Based");
    lcd.setCursor(0, 1);
    lcd.print("Hydroponics Sys.");
    delay(2000);
    lcd.clear();
    Serial.begin(115200);
    dht.begin();
    delay(10);
    Serial.println("Connecting to ");
    Serial.println(ssid);
    WiFi.begin(ssid, pass);
    while (WiFi.status() != WL_CONNECTED)
    {
        delay(500);
        Serial.print(".");
    }
    Serial.println("");
}

```



```
Serial.println("WiFi connected");  
delay(1000);
```

```
ThingSpeak.begin(client);  
lcd.setCursor(0, 1);  
lcd.print("WiFi connected");  
delay(1000);  
lcd.clear();  
}  
void loop()  
{  
  s1= analogRead(Ldr_sensor_pin);  
  s2= analogRead(Soil_Moisture_sensor_pin);  
  s3= analogRead(Temp_sensor_pin);  
  Ldr_sensor_pin_value=map(s1, 0,1023, 0,255);  
  Soil_Moisture_sensor_pin_value= map(s2,0, 1023, 0,255);  
  Temp_sensor_pin_value=map(s3, 0,1023, 0,150);  
  Humidity = dht.readHumidity(); // Gets the values of the humidity  
  lcd.clear();  
  lcd.setCursor(0, 0);  
  lcd.print("LDR=");  
  lcd.print(Ldr_sensor_pin_value);  
  lcd.setCursor(8, 0);  
  lcd.print("Soil=");  
  lcd.print(Soil_Moisture_sensor_pin_value);  
  lcd.setCursor(0, 1);  
  lcd.print("Temp=");  
  lcd.print(Temp_sensor_pin_value);  
  lcd.setCursor(8, 1);  
  lcd.print("Hum=");  
  lcd.print(Humidity);
```



```

delay(1000);
lcd.clear();
Serial.print("Light Intensity=");
Serial.print(Ldr_sensor_pin_value);
Serial.print("  Soil Moisture=");
Serial.println(Soil_Moisture_sensor_pin_value);
Serial.print(" Temperature=");
Serial.print(Temp_sensor_pin_value);
Serial.print(" Humidity=");
Serial.println(Humidity);

if (client.connect(server,80)) // "184.106.153.149" or api.thingspeak.com
{
    delay(500);
    String postStr = apiKey;
    postStr += "&field1=";
    postStr += String(Ldr_sensor_pin_value);
    postStr += "&field2=";
    postStr += String(Soil_Moisture_sensor_pin_value);
    postStr += "&field3=";
    postStr += String(Temp_sensor_pin_value);
    postStr += "&field4=";
    postStr += String(Humidity);
    postStr += "\r\n\r\n";
    delay(500);
    client.print("POST /update HTTP/1.1\r\n");
    client.print("Host: api.thingspeak.com\r\n");
    client.print("Connection: close\r\n");
    client.print("X-THINGSPEAKAPIKEY: "+apiKey+"\r\n");
    client.print("Content-Type: application/x-www-form-urlencoded\r\n");
}

```

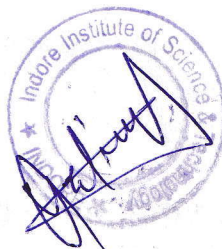


```

client.print("Content-Length: ");
client.print(postStr.length());
client.print("\n\n");
client.print(postStr);
delay(500);
Serial.print("moisture=: ");
Serial.println(Soil_Moisture_sensor_pin_value);
Serial.print("Light intensity=: ");
Serial.print(Ldr_sensor_pin_value);
Serial.println(" Send to Thingspeak.");
delay(500);
lcd.clear();
lcd.setCursor(0, 0);
lcd.print(" Moisture value ");
lcd.setCursor(0, 1);
lcd.print(" Sent Thingspeak ");
delay(500);
lcd.clear();
lcd.setCursor(0, 0);
lcd.print("Intensity value ");
lcd.setCursor(0, 1);
lcd.print(" Sent Thingspeak ");
delay(500);
lcd.clear();
}

client.stop();
Serial.println("Waiting...");
if (Ldr_sensor_pin_value>500)
{
    digitalWrite(Relay_Led_strip1_pin,HIGH);

```



```

digitalWrite(Buzzer_pin,HIGH);
lcd.clear();
lcd.setCursor(0, 0);
lcd.print(" Bulb ON");
delay(2000);
lcd.clear();
digitalWrite(Buzzer_pin,LOW);
delay(2000);
}
else
{
    digitalWrite(Relay_Led_strip1_pin,LOW);
    lcd.clear();
    lcd.setCursor(0, 0);
    lcd.print(" Bulb OFF");
    delay(1000);
}
if (Soil_Moisture_sensor_pin_value<600)
{
    digitalWrite(Relay_Ac_Pump2_pin,LOW);
    lcd.clear();
    lcd.setCursor(0, 0);
    lcd.print("AC Pump OFF ");
    delay(1000);
}
else
{
    digitalWrite(Relay_Ac_Pump2_pin,HIGH);
    digitalWrite(Buzzer_pin,HIGH);
    lcd.clear();
    lcd.setCursor(0, 0);

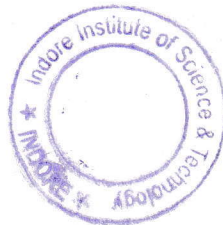
```



```
lcd.print("AC Pump ON ");  
delay(5000);  
lcd.clear();  
digitalWrite(Buzzer_pin,LOW);  
delay(5000);  
}
```

```
}
```

## Results



A handwritten signature in blue ink, appearing to be "Anurag", written diagonally across the page.



## Applications:

- Global Connectivity Through Any Devices.
- Faster access.
- Efficient Communication.
- Time Efficiency.

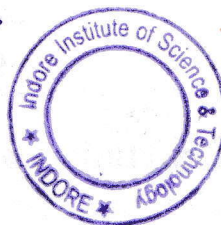
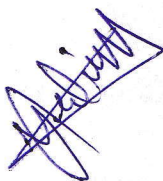
## Future Scope:

- Live stock Monitoring Is Future Of lot in Agriculture In india.
- Smart Irrigation System.
- Monitoring And Control System.
- Agriculture Business Management.



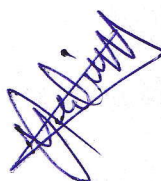
## Conclusion:-

The core of a hydroponic system is to maintain and control the environmental parameters and the efficient supply of nutrition and water for healthy growth of the plants. In this paper, a cost effective automated vertical hydroponic system using IoT platform has been implemented. The design of the vertical hydroponic system was selected based on a comparison with other designs in terms of costs, efficiency, and suitability to build in small indoor space. The primary structure design of the system has been assembled and the required parameters to build an automatic system were planned in order to select the required components. The parameters of the system were studied and calculated such as the suitable temperature, light wavelength, pH, EC, and the required amount of water for the system. Finally, the parameters were displayed in Thingspeak IoT platform web-interface and mobile application to provide easily accessible user interface. User can monitor visualize the parameters and system can send SMS message in case of pump interruption. The IoT platform allows to extract data in a CSV file which can help in machine learning algorithm development while the system can produce a large amount data suitable for training classical and deep learning algorithms to enhance the performance of the automated system for controlling. This study has opened up the possibility of carrying out several other potential studies. There is no feasibility study reported in indoor plantation compared to the field vegetation for this region. Moreover, the hydroponically grown plants, organic plants, and field plants can be studied and their comparative growth can be monitored through this wireless platform. In conclusion, this automated cost effective vertical hydroponic system can provide an in-house vegetation solution for the Arab world and its cost will be significantly less if the materials are locally made. Therefore, a wide-spread adoption of such solutions in every household can help to fulfill the local requirements of leafy fresh vegetables and can reduce the dependency on import



## Conclusion:-

The core of a hydroponic system is to maintain and control the environmental parameters and the efficient supply of nutrition and water for healthy growth of the plants. In this paper, a cost effective automated vertical hydroponic system using IoT platform has been implemented. The design of the vertical hydroponic system was selected based on a comparison with other designs in terms of costs, efficiency, and suitability to build in small indoor space. The primary structure design of the system has been assembled and the required parameters to build an automatic system were planned in order to select the required components. The parameters of the system were studied and calculated such as the suitable temperature, light wavelength, pH, EC, and the required amount of water for the system. Finally, the parameters were displayed in Thingspeak IoT platform web-interface and mobile application to provide easily accessible user interface. User can monitor visualize the parameters and system can send SMS message in case of pump interruption. The IoT platform allows to extract data in a CSV file which can help in machine learning algorithm development while the system can produce a large amount data suitable for training classical and deep learning algorithms to enhance the performance of the automated system for controlling. This study has opened up the possibility of carrying out several other potential studies. There is no feasibility study reported in indoor plantation compared to the field vegetation for this region. Moreover, the hydroponically grown plants, organic plants, and field plants can be studied and their comparative growth can be monitored through this wireless platform. In conclusion, this automated cost effective vertical hydroponic system can provide an in-house vegetation solution for the Arab world and its cost will be significantly less if the materials are locally made. Therefore, a wide-spread adoption of such solutions in every household can help to fulfill the local requirements of leafy fresh vegetables and can reduce the dependency on import



## Feedback of Project Skills Development

Timestamp	Name of Student	Enrollment No	Semester /Year	1. The presenter/lecturer/trainer/facilitator(s) was/were knowledgeable	2. The presenter/lecturer/trainer/facilitator(s) was/were well-prepared	3. The content of the workshop/training/seminar was useful.	4. The workshop/training/seminar/course has met the stated objectives fully.	5. I would be interested in attending a follow-up, more advanced workshop on this same subject	6. How would you rate today hands-on practical session of the workshop	7. Is this workshop helpful for academic/competitive growth?	8. Is this workshop helpful for making your minor/major/competition projects?	9. How was your experience about the workshop venue/facility?	10. Rate Overall Workshop	Additional Remarks if any
#####	Yashveer Mishra	0818EC181012	Fourth Year	Very Satisfied	Very Satisfied	Very Satisfied	Very Satisfied	Very Satisfied	Very Satisfied	Very Satisfied	Very Satisfied	Very Satisfied	Very Satisfied	
#####	Madhavi joshi	0818EC181006	Fourth Year	Satisfied	Satisfied	Satisfied	Satisfied	Good	Satisfied	Satisfied	Satisfied	Good	Satisfied	
#####	Swati Bisen	0818EC181011	Fourth Year	Satisfied	Very Satisfied	Satisfied	Satisfied	Very Satisfied	Very Satisfied	Very Satisfied	Satisfied	Satisfied	Very Satisfied	
#####	Naveen Thakur	0818EC181007	Fourth Year	Satisfied	Satisfied	Satisfied	Satisfied	Satisfied	Satisfied	Satisfied	Satisfied	Satisfied	Satisfied	



Summary								
	5	4	3	2	1	0	COUNT	TOTAL
Q-1	1	3	0	0	0	0	4	17
Q-2	2	2	0	0	0	0	4	8
Q-3	1	3	0	0	0	0	4	8
Q-4	1	3	0	0	0	0	4	10
Q-5	2	1	1	0	0	0	4	5
Q-6	2	2	0	0	0	0	4	6
Q-7	2	2	0	0	0	0	4	8
Q-8	1	3	0	0	0	0	4	8
Q-9	1	2	1	0	0	0	4	7
Q-10	2	2	0	0	0	0	4	6



# Feedback of Project Skills Development Day-1-10

4 responses

Publish analytics

## Name of Student

4 responses

Yashveer Mishra

Madhavi joshi

Swati Bisen

Naveen Thakur

## Enrollment No

4 responses

0818EC181012


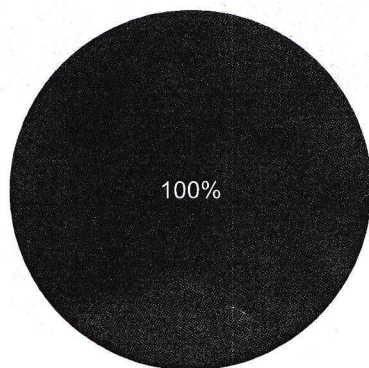
0818EC181006

0818EC181011

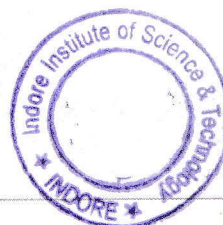
0818EC181007

## Semester /Year

4 responses

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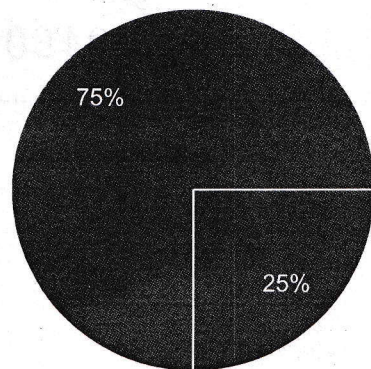
- First Year
- Second Year
- Third Year
- Fourth Year



1. The presenter/lecturer/trainer/facilitator(s) was/were knowledgeable


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4 responses

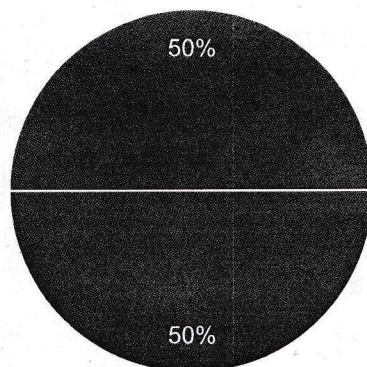


- Very Satisfied
- Satisfied
- Good
- Average

2. The presenter/lecturer/trainer/facilitator(s) was/were well-prepared

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4 responses

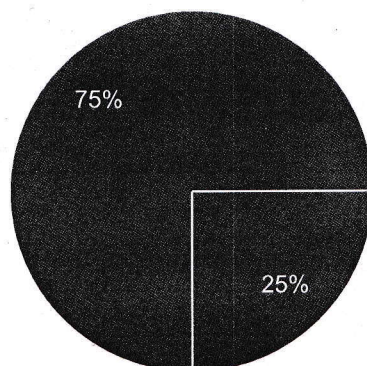


- Very Satisfied
- Satisfied
- Good
- Average

3. The content of the workshop/training/seminar was useful.

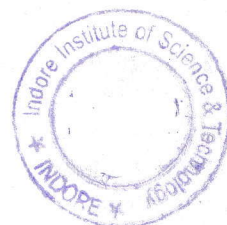
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4 responses




- Very Satisfied
- Satisfied
- Good
- Average

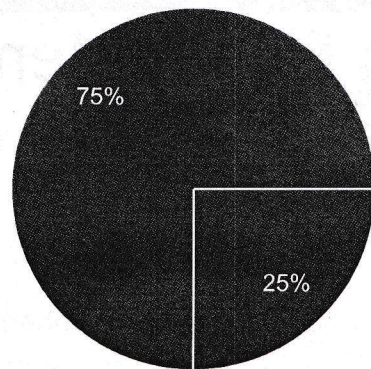
*[Handwritten signature]*



4. The workshop/training/seminar/course has met the stated objectives fully.


 Copy

4 responses

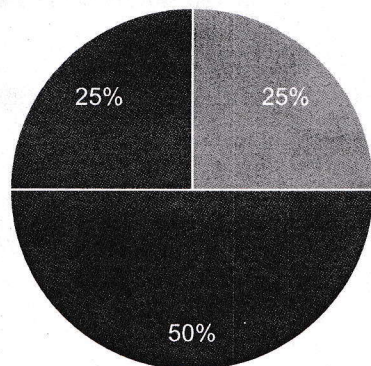


● Very Satisfied  
● Satisfied  
● Good  
● Average

5. I would be interested in attending a follow-up, more advanced workshop on this same subject

 Copy

4 responses

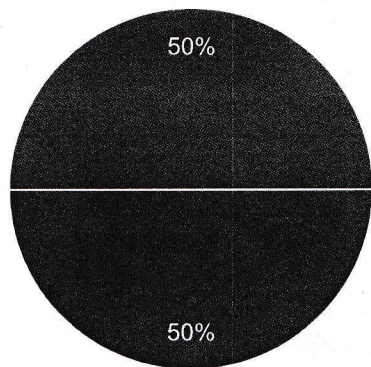


● Very Satisfied  
● Satisfied  
● Good  
● Average

6. How would you rate today hands-on practical session of the workshop

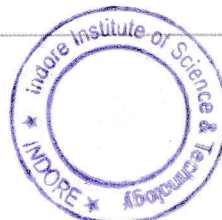
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4 responses



● Very Satisfied  
● Satisfied  
● Good  
● Average

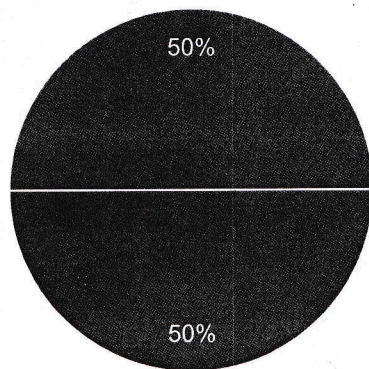
*Signature*



7. Is this workshop helpful for academic/competitive growth?


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4 responses

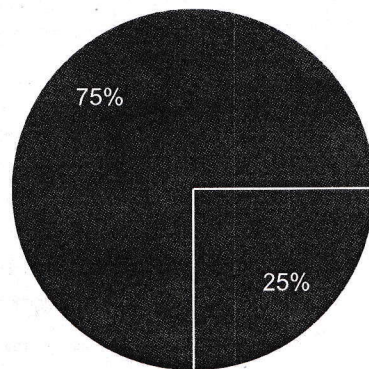


- Very Satisfied
- Satisfied
- Good
- Average

8. Is this workshop helpful for making your minor/major/competition projects?

 Copy

4 responses

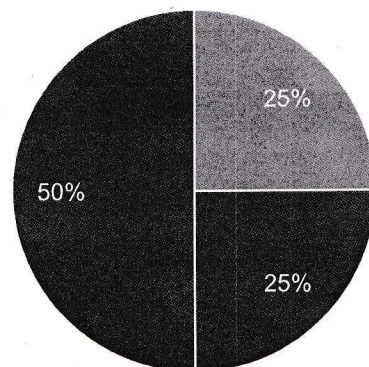


- Very Satisfied
- Satisfied
- Good
- Average

9. How was your experience about the workshop venue/facility?

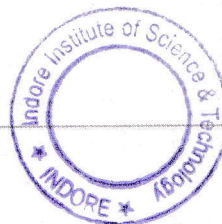
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4 responses



- Very Satisfied
- Satisfied
- Good
- Average

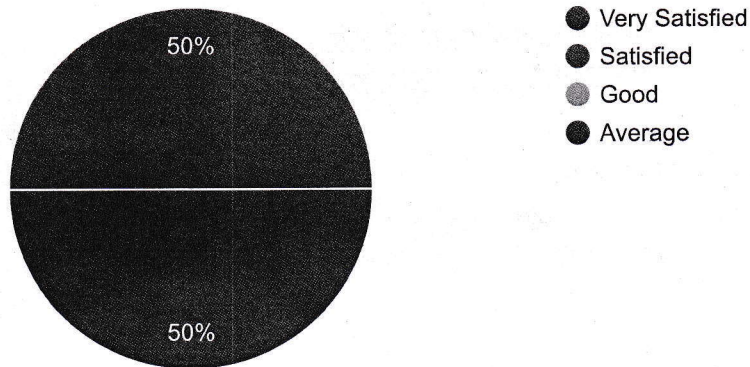
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## 10. Rate Overall Workshop



4 responses



## Additional Remarks if any

0 responses

No responses yet for this question.

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Google Forms



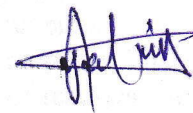
Date: 12/02/2022

## Report

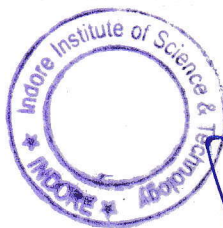
Department of Electronics and Communication Engineering Successfully complete Workshop on Project skills Development from 31<sup>th</sup> Jan to 12<sup>th</sup> feb 2022 and 12 students successfully completed the Workshop program.

### Learning Outcomes:

- Participants able to express their creativity using coding and technology which will help in Placements.
- Participants learned about project work hardware and software both.
- Participants will be able to troubleshoot and analysis the hardware problems.
- Participants are able sound technically fine.
- Participants able to deal with project development and management.



**Coordinator**



# Indore Institute of Science and Technology

## Event Report

Academic Year – 2021-22

Session: Jan to June 2022

Name of Event: Internship cum Training on Art and Science of PCB Design and development.

Date of Event: 17<sup>th</sup> May to 24<sup>th</sup> May 2022

Organizing Dept.: ECE Department

Event Coordinator: Mr. Prabhat Pandey Dr. Irfan Mansoori

Name of Partner / co-organizer (If Industry is involved):  $\pi$ -Tech

Address:  $\pi$ -Tech near Bhawarkua Sq.

Contact No.: 9669330357

Email Id:

Name of Industry Representative: Mr. Ravi Yadav

Contact No.: 9669330357

Email Id:

Name of Expert/Guest: \_\_\_\_\_

Institute / Company: \_\_\_\_\_

Designation: \_\_\_\_\_, Department: \_\_\_\_\_

Address: \_\_\_\_\_

Contact No.: \_\_\_\_\_, Email Id: \_\_\_\_\_

### Details of Participants:

No. of Institutes Participated	No. of Students Participated	Department	No. of Industry Representative	Remark if any
		CSE/IT/EC/ME/CM/ESH		
1	65	ECE	01	

\*Please enclose a detailed list.

Also enclosed following details:

1. Approval Letter
2. Invitation card/Brochure / Leaflet (if printed by Institute or Organizing Partner) print/Social
3. Detailed summary on event. (Outcome)
4. Media Report (attach copy of newspaper)/ write-up for media/ FB write-up
5. Certificate / Letter (if printed by Institute or Organizing Partner)

HOD



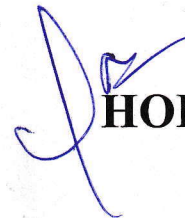
DATE: 02<sup>nd</sup> May, 2022

## Approval Letter

Department of Electronics & Communication Engineering interested to organize one week Internship cum Training on Art and Science of PCB Design and development from 17<sup>th</sup> May to 24<sup>st</sup> May 2022 under Design and Fabrication SIG.

Kindly approve for organizing the Internship cum Training in the department.

Proposal enclosed herewith.



**HOD ECE**



A handwritten signature in green ink, consisting of a stylized 'S' or 'M' shape followed by a horizontal line.

DATE: 09<sup>th</sup> May, 2022

## NOTICE

This is to inform you that Department of Electronics & Communication is going to organize one week Internship cum Training on Art and Science of PCB Design and development conducted by IIST EC Department from 17<sup>th</sup> May to 24<sup>st</sup> May 2022. All the students of I Year will have to participate actively in this event so that you will get benefits from that event. The event will be held online from 10:00PM to 03:30PM.

### Faculty Coordinators:

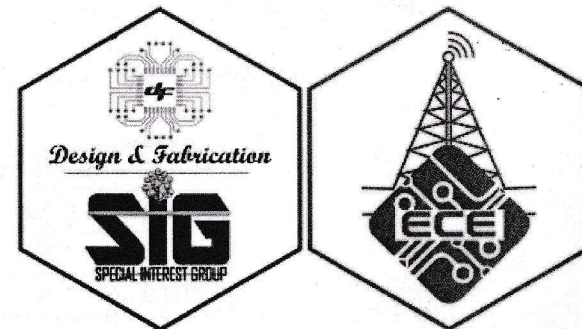
- a) Mr. Prabhat Pandey 
- b) Dr. Irfan Mansoori 

So, I invite all the interested Students to attend/participate in the workshop and get the advantages.



**HOD ECE**





# Internship cum Training

## Art and Science of PCB Design & Development

In Association with



**30 Hrs training for 2<sup>nd</sup> Sem**

**From: 17-24 May 2022 | 10:00am to 3:30pm**

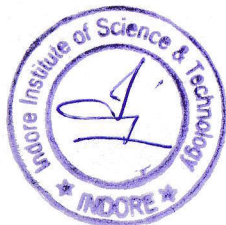
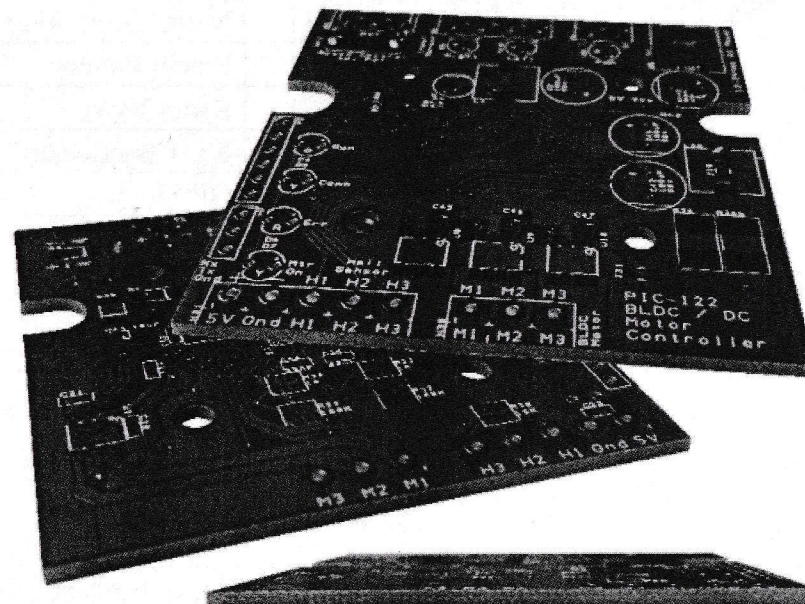
**Resources Person: Mr. Ravi Yadav**

**Coordinator :- Mr. Prabhat Pandey and Dr. Irfan Mansoori**

**Support :- Mr. Raju S Dawer and Mr. Deepak Rathore**  
**Department of Electronic & Communication Engineering**

**IIST Campus, Opp. IIM(Indore), Rau-Pithampur Road, Rau, Indore 453331(MP)**

**Toll Free: 1800 103 3069 | 822 507 1000 / 822 407 1000**



*Prabhat*

**INDORE INSTITUTE OF SCIENCE & TECHNOLOGY, INDORE**  
**DEPARTMENT OF ELECTRONIS & COMMUNICATION ENGINEERING**

**OFFLINE INTERNSHIP PROGRAM ON**  
**Art & Science Of Pcb Design & Development**  
**FOR SESSION JAN-JUNE 2022**

**Course Details**

<b>Course Name</b>	Offline Internship Program on Art & Science Of Pcb Design & Development
<b>Eligible Students for cour</b>	ECE, Batch 2021-24
<b>Date</b>	17-21, May 2022
<b>Mode of Internship</b>	Offline
<b>Software Names</b>	<u>Eagle Software For PCB Design Available in Google Classroom</u>
	Proteus Software For Simulation Available in Google Classroom
<b>Hardware Required</b>	Yes ( Provided By College for Practical Use Only)
<b>If applicable play store lin</b>	No
<b>Pre-requisties</b>	Basics Electronics and Circuit Design(Optional)
<b>Setup Required</b>	Projector, White Board, Lab Equipments etc.
<b>Assessment of Course</b>	In the end Quiz test will be conducted & Project Circuit Design Submission (S
<b>Certificate Criteria</b>	Minimum 50 % in end quiz test with 80 % attendance in all session.
<b>Instructor /Trainer</b>	Mr. Ravi Yadav

**Course Objective**

The objective is to engagae the students in Practical of Pcb Design ,Theroytically pcb Design Aproch ,Deep Details Study & Research on Project Tittle .and Understanding Indusrty need.

**Course Outline**

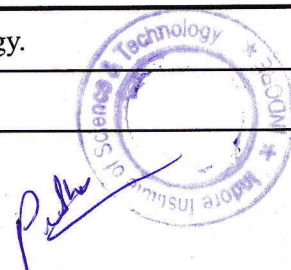
Basic Electronis, Circuit Designing, Circuit Simultion, Power Supply ,Designing ,Single Side Pcb, Double Sided PCb , multilayer Pcb, Placing Online order ,Project Design & Development Skills

PCB Design & Development ,Soldring Technich, SMD, HL , SOIC, Concepts, Current Trends In Embedded Company , Requirements of Various kind of job Profiles

**Course Outcome**

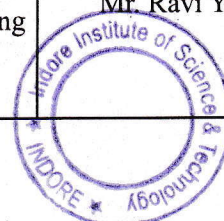
Students are able to express their creativity using Pcb Design Theire technology.

Students are able to understood Project Work Software



Students are able to Troubleshoot & Analyse the pcb Layout Rules
Students are able to Sound technically fine
Understand Gerber file and export gerber file for production
Be able to create single and double sided PCB Designs
Students are able to Deal With Project on Pcb Design Tools
Be an awesome electronics designer in very low time!!!

Course Content		
Date	Topic	Instructor /Trainer
17/05/2022	What is the Circuit Designing, Open Circuit & short circuit, Introduction Of Simulation, Various tools of Simulation, like Proteus, What Is Pcb, Type Of Pcb , Classification of Pcb , Material Pcb , Selection of Pcb	Mr. Ravi Yadav
18/05/2022	Intoduction Of Pcb Design Tools , Introduction Of Eagle Software ,tools installation , Downloading , Introduction of proteus Software and thiere simulation tools ,Basics of Breadboard, DSO, Multimeter, Wire Stripper, Introduction of OP-AMP, Explanation of OP-AMP Ic-Lm-324, Pin Diagram, Working Of relay Switch, Diode, Power Supply etc,	Mr. Ravi Yadav
19/05/2022	<b>Eagle Software, Proteus Simulation, Hardware Project- Automatic Street Light</b> , Project Detail study of componatens, selection of componants And thiere pcb design , creating schamatic layout , pcb layout , board layout , understaning of footprint , footprint layout desgining shapping and PCB fabrication, etc.	Mr. Ravi Yadav
20/05/2022	<b>Eagle Software, Proteus Simulation, Hardware Project- Automatic Temperature Controlled DC Fan</b> , Project Detail study of componatens, selection of componants And thiere pcb design , creating schamatic layout , pcb layout , board layout , understaning of footprint , footprint layout desgining shapping and PCB fabrication, etc.	Mr. Ravi Yadav
23/05/2022	<b>Eagle Software, Proteus Simulation, Hardware Project- Automatic Irrigation System</b> , Project Detail study of componatens, selection of componants And thiere pcb design , creating schamatic layout , pcb layout , board layout , understaning of footprint , footprint layout desgining shapping and PCB fabrication, etc.	Mr. Ravi Yadav

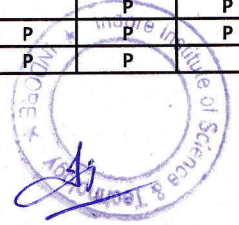


**INDORE INSTITUTE OF SCIENCE AND TECHNOLOGY**  
**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**  
**Internship cum Training on Art and Science of PCB Design and development**

**Attendance**

S.No.	Enroll. No.	Name of Candidate	17/05/22	18/05	19/05	20/05	23/05	24/05
1	0818EC211001	AAYUSH OSARIYA	P	P	P	P	P	P
2	0818EC211002	ABHAY TIWARI		P	P	P	P	P
3	0818EC211003	ABHJEET CHOUHAN		P	P	P	P	P
4	0818EC211004	ADARSH SHARMA	P	P	P	P	P	P
5	0818EC211005	ADITYA SHARMA	P	P	P	P	P	P
6	0818EC211006	AJAY SHARMA	P	P	P		P	P
7	0818EC211007	AMISHA SISODIYA	P	P	P		P	P
8	0818EC211008	ANJANA SAHU	P		P	P	P	P
9	0818EC211009	ANKIT MALVIYA	P	P	P	P	P	P
10	0818EC211010	ANKUSH YADAV	P	P	P	P	P	P
11	0818EC211011	ANSHUL PATEL	P	P	P	P	P	P
12	0818EC211012	ANUJ DAYMA		P	P	P	P	P
13	0818EC211013	ANUJ PANCHAL	P	P	P		P	P
14	0818EC211014	ANUSHKA KURIL		P	P	P	P	P
15	0818EC211015	ASHIMA KURIL	P	P	P		P	P
16	0818EC211016	ASHISH VISHVAKARMA	P		P	P	P	P
17	0818EC211017	ASHUTOSH KUMAR						
18	0818EC211018	AYUSH JADHAV	P	P	P	P	P	P
19	0818EC211019	AYUSH RAGHUWANSHI	P	P	P	P	P	P
20	0818EC211020	BHUMI CHOUHAN	P	P	P	P	P	P
21	0818EC211021	DIGAMBER BARFA		P	P	P	P	P
22	0818EC211022	DURGESH SUPARE						
23	0818EC211023	DURGESH TRIPATHI				P	P	P
24	0818EC211024	HARI PRASAD MALVIYA		P	P	P	P	P
25	0818EC211025	HARSH MALVIYA	P	P	P	P	P	P
26	0818EC211026	HIMANSHI DODEJA	P	P	P	P	P	P
27	0818EC211027	HOMESH BHARDWAJ	P	P	P	P	P	P
28	0818EC211028	JAYDEEP SINGH JADON	P	P	P	P		P
29	0818EC211029	KAPIL DETHLIYA	P	P	P	P	P	P
30	0818EC211030	KARINA SISODIYA	P	P	P	P		P
31	0818EC211031	KARTIK KANDHARI						
32	0818EC211032	KIRTI PATIDAR		P	P	P	P	P
33	0818EC211033	KOMAL MEGHWAL	P	P	P		P	P
34	0818EC211034	KRISHNA KUSHWAH	P	P	P		P	P
35	0818EC211035	MAHIMA PAL	P	P	P	P		P
36	0818EC211036	MANISHA	P	P	P	P	P	P
37	0818EC211037	MANSI LASHKARI	P	P	P	P	P	P
38	0818EC211038	MANSI TAMHANKAR	P	P	P	P	P	P
39	0818EC211039	MAYUR JADHAW	P	P	P		P	P
40	0818EC211040	NAINA AHIRE		P	P	P	P	P
41	0818EC211041	NISHITA SHINDHVE	P	P	P	P	P	P
42	0818EC211042	NISHITA VERMA	P	P	P	P	P	P
43	0818EC211043	PAWAN KUMAR	P	P	P	P	P	P
44	0818EC211045	PRIYANSHU JHA	P	P	P	P	P	P
45	0818EC211046	RAJVEER SINGH RAJPUT	P	P	P	P	P	P
46	0818EC211047	RAKSHA KALE	P	P	P	P	P	P
47	0818EC211048	ROHIT SAWNER	P	P	P	P	P	P
48	0818EC211049	RONIT CHOUDHARY	P	P	P	P	P	P
49	0818EC211050	ROUNAK GADWAL	P	P	P	P	P	P
50	0818EC211051	SACHIN JAISWAL						
51	0818EC211052	SANJANA SEN	P	P		P	P	P
52	0818EC211053	SANJEEVANI SINGH		P	P	P	P	P
53	0818EC211054	SATISH PATIDAR		P	P	P	P	P
54	0818EC211055	SHASHI YADAV		P	P	P	P	P
55	0818EC211056	SHIVAM RAY		P	P	P	P	P
56	0818EC211057	SHOBHIT PAWAR	P	P	P		P	P
57	0818EC211058	SUMIT GUPTA	P	P	P	P	P	P
58	0818EC211059	UDAY MALVIYA	P	P	P	P	P	P
59	0818EC211060	UTKARSH DUBEY	P	P	P	P	P	P
60	0818EC211061	VAIDIKA RATHORE		P	P	P	P	P
61	0818EC211062	VIJAY SAHU	P	P	P	P	P	P
62	0818EC211063	VINAY CHOUHAN	P	P	P	P	P	P
63	0818EC211064	VISHAL SOLANKI	P	P		P	P	P
64	0818EC211065	VIVEK LOWANSHI	P	P	P	P	P	P
65	0818EC211066	YOGANSHI SHARMA	P	P	P	P	P	P

*P. K. S.*

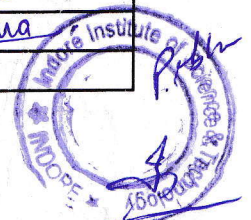


*[Signature]*

DATE: 24/05/2022	SUBJECT: Art & Science of PCB Design & Development
TIME: 12:20-3:30	FACULTY NAME: Mr. Ravi Yadav
BRANCH/ YR: ECE/1 <sup>st</sup> yr.	LAB TECH: Mr. Raju Dandekar & Mr. Deepak Rathor
PRACTICAL:	

S.NO	ENROLLMENT NO.	STUDENT NAME	P/C NO.	SIGNATURE
1	0818EC211015	Ashwina Kuvil		Ashwina Kuvil
2	0818EC211014	Anushka Kuvil		Anushka Kuvil
3	0818EC211033	Komal Meghwal		Komal Meghwal
4	0818EC211049	Rajit Chaudhary		Rajit Chaudhary
5	0818EC211053	Dharmendra Singh		Dharmendra Singh
6	0818EC211038	Mansi Parmbarker		Mansi Parmbarker
7	0818EC211042	Nishita Verma		Nishita Verma
8	0818EC211046	Rajveer Singh Rajput		Rajveer Singh Rajput
9	0818EC211018	Ayush Jadhav		Ayush Jadhav
10	0818EC211003	Abhijeet Chouhan		Abhijeet Chouhan
11	0818EC211011	Anshul Patel		Anshul Patel
12	0818EC211029	Kapil Gethliya		Kapil Gethliya
13	0818EC211058	Sumit Gupta		Sumit Gupta
14	0818EC211048	Rohit Saurav		Rohit Saurav
15	0818EC211063	Vinay Chouhan		Vinay Chouhan
16	0818EC211055	Shashi Yadav		Shashi Yadav
17	0818EC211056	Shivam Ray		Shivam Ray
18	0818EC211024	Hari Prasad		Hari Prasad
19	0818EC211054	Satish Patidar		Satish Patidar
20	0818EC211057	Shashit Rawat		Shashit Rawat
21	0818EC211059	Uday Malviya		Uday Malviya
22	0818EC211041	Nishita Shindhre		Nishita Shindhre
23	0818EC211097	Homesh Bhardwaj		Homesh Bhardwaj
24	0818EC211020	Bhumi Chaurhan		Bhumi Chaurhan
25	0818EC211034	Mansi Lakhani		Mansi Lakhani
26	0818EC211019	Ayush Raghuvanshi		Ayush Raghuvanshi
27	0818EC211047	Raksha V Kate		Raksha V Kate
28	0818EC211064	Vishal Salanki		Vishal Salanki
29	0818EC211065	Vivek Lowanshi		Vivek Lowanshi
30	0818EC21106	Ajay Sharma		Ajay Sharma
31	0818EC211009	HARSH MALVIYA		HARSH MALVIYA
32	0818EC211025	HARSH MALVIYA		HARSH MALVIYA
33	0818EC211012	Anuj Dayma		Anuj Dayma
34	0818EC211050	Ronak Gudwal		Ronak Gudwal
35	0818EC211026	Himanshi Dodeja		Himanshi Dodeja
36	0818EC211061	Vaidika Rathore		Vaidika Rathore
37	0818EC211034	Krishna Kishwar		Krishna Kishwar
38	0818EC211052	Nayana Sen		Nayana Sen
39	0818EC211036	Manisha		Manisha
40	0818EC211004	Adarsh Sharma		Adarsh Sharma
41	0818EC211007	Anisha Sisodiya		Anisha Sisodiya
42	0818EC211023	Durgesh Tripathi		Durgesh Tripathi

43 0818EC211062  
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 46 0818EC211039

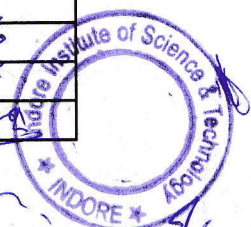


DATE: 23/05/2022	SUBJECT: Art & Science of PCB Design & Development
TIME: 12:30 - 3:30 Pm	FACULTY NAME:
BRANCH/ YR: ECE / I Yr	LAB TECH:

PRACTICAL:

S.NO	ENROLLMENT NO.	STUDENT NAME	P/C NO.	SIGNATURE
1	0818EC211087	Mansi / ashkari		Mansi
2	0818EC211027	Himesh Bhandari		Himesh
3	0818EC211057	SHOBHIT PAWAR		Shobhit
4	0818EC211058	Sumit Gupta		Sumit
5	0818EC211048	Rohit Saurav		Rohit
6	0818EC211063	Vinay Chouhan		Vinay
7	0818EC211066	Yogesh Chandra		Yogesh
8	0818EC211045	Priyanshu Jha		Priyanshu
9	0818EC211062	Vijay Chandra		Vijay
10	0818EC211010	Ankur Yadav		Ankur
11	0818EC211050	Rounak Gargwal		Rounak
12	0818EC211024	Hadi Mahiya		Hadi
13	0818EC211055	Shashi Yadav		Shashi
14	0818EC211056	Shivam Ray		Shivam
15	0818EC211036	Manisha		Manisha
16	0818EC211004	Adarsh Sharma		Adarsh
17	0818EC211007	Amisha Sisodia		Amisha
18	0818EC211026	himanshi Dodiya		Himanshi
19	0818EC211076	Ashish Vishwakarma		Ashish
20	0818EC211030	Karina Sisodia		Karina
21	0818EC211029	Kapil Dethliya		Kapil
22	0818EC211011	Anshul Patel		Anshul
23	0818EC211013	ANUS PANCHAL		Anus
24	0818EC211005	ADITYA SHARMA		Aditya
25	0818EC211060	UTKARSH DUBEY		Utkarsh
26	0818EC211018	AJUSH Jadhav		Ajush
27	0818EC211003	Abhijeet Jadhav		Abhijeet
28	0818EC211046	Rajendra Singh Rathore		Rajendra
29	0818EC211047	Nishita Verma		Nishita
30	0818EC211038	Mansi Tambekar		Mansi
31	0818EC211053	Sanjeevani Singh		Sanjeevani
32	0818EC211049	Rishi Chaudhary		Rishi
33	0818EC211020	Bhumi Chouhan		Bhumi
34	0818EC211025	Harsh Mahiya		Harsh
35	0818EC211059	Uday Mahiya		Uday
36	0818EC211054	Satish Patidar		Satish
37	0818EC211009	ANKIT MALVIYA		Ankit
38	0818EC211065	Vivek Lawanshi		Vivek
39	0818EC211006	Ajay Sharma		Ajay
40	0818EC211064	Ujjwal Salunkhe		Ujjwal
41	0818EC211012	ANUS ZAYMA		Anus
42	0818EC211061	Vandika Rathore		Vandika

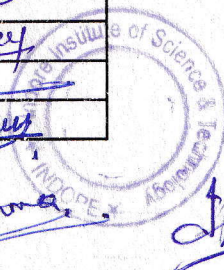
5 0818EC211052 Sanjana Sen



DATE: 24/05/2022	SUBJECT: ART & SCIENCE of PCB DESIGN & DEVELOPMENT
TIME: 10:00 - 12:00 Noon	FACULTY NAME: Mr. Ravi Yadav
BRANCH/ YR: ECE / I YR	LAB TECH: Mr. Raju Dancer & Mr. Deepak Rathore

PRACTICAL:

S.NO	ENROLLMENT NO.	STUDENT NAME	P/C NO.	SIGNATURE
1	0818EC211034	Krishna Kishore		Krishna
2	0818EC211014	Anushka Kaur		Anushka Kaur
3	0818EC211015	Ashwina Kaur		Ashwina
4	0818EC211033	Komal Meghwal		Komal
5	0818FC211049	Ranit Choudhary		Ranit
6	0818EC211038	Mansi Tanwanka		Mansi
7	0818FC211042	Nishita Verma		Nishita
8	0818EC211053	Sanjeevani Singh		Sanjeevani
9	0818EC211046	Rajiv S. Rajput		Rajiv
10	0818EC211029	Kapil Deshpande		Kapil
11	0818EC211011	Anshul Patel		Anshul
12	0818EC211003	Abhijeet Chouhan		Abhijeet
13	0818EC211018	Ayush Jadhav		Ayush
14	0818EC211058	Sumit Gupta		Sumit
15	0818EC211048	Rohit Kumar		Rohit
16	0818EC211059	Uday Malviya		Uday
17	0818FC211063	Vinay Chouhan		Vinay
18	0818EC211041	Nishita Shinde		Nishita
19	0818EC211019	Ayush Raghunani		Ayush
20	0818EC211047	Raksha Kale		Raksha
21	0818EC211065	Vivek Lowanshi		Vivek
22	0818EC211025	Harsh Malviya		Harsh
23	0818EC211009	ANRIT MEHTA		Anrit
24	0818EC211057	SOBHIT PAWAR		Sobhit
25	0818EC211054	Satish Patidar		Satish
26	0818EC211024	Harish Malviya		Harish
27	0818EC211056	Shivam Ray		Shivam
28	0818EC211055	Shashi Yadav		Shashi
29	0818EC211023	Duggesh Tripathi	10	Duggesh
30	0818FC211062	VIJAY SAHU	10	Vijay
31	0818EC211010	ANKUSH YADAV	09	ANKUSH
32	0818EC211045	PRIVASHU JHA	09	PRIVASHU
33	0818FC211043	PAWAN KHATRI	4	Pawan
34	0818EC211001	AYUSH DSARIA	8	ayush
35	0818EC211002	ABHAY TIWARI	8	Abhay
36	0818EC211039	MAYUR JADHAW	7	Mayur
37	0818EC211012	Anuj Dayma	7	Anuj
38	0818EC211013	ANUS PANCHAL		Anus
39	0818EC211005	ADITYA SHARMA		Aditya
40	0818EC211060	UTKARSH DUBEY		Utkarsh
41	0818EC211035	MAHIMA PAL	04	Mahima
42	0818EC211016	AASHISH VISHWAKAR	04	Aashish
43	0818EC2110303	KARINA SISODIYA	04	Karina
44	0818EC211066	YOGANSHI SHARMA	04	Yoganshi



DATE: 23/05/2022	SUBJECT: Art & Science of PCB Design & Development
TIME: 10:00 - 12:00 Noon	FACULTY NAME: Mr. Ravi Yadav
BRANCH/ YR: ECE / I YR.	LAB TECH: Mr. Raju Dandekar & Mr. Deepak Rathore

PRACTICAL:

0818EC211040

Naina Ahire

(Naina)

S.NO	ENROLLMENT NO.	STUDENT NAME	P/C NO.	SIGNATURE
1	0818EC211042	Nishita Verma		Nishita
2	0818EC211038	Mansi Jamharkar		Mansi
3	0818EC211053	Sanyewani Singh		Sanyewani
4	0818EC211046	Rajendra Singh Rajput		Rajendra
5	0818EC211047	Rakesh Kale		Rakesh
6	0818EC211034	Krishna Kushwaha		Krishna
7	0818EC211064	Vishal Salunkhe		Vishal
8	0818EC211011	Anshul Patel		Anshul
9	0818EC211029	Kapil Dethliya		Kapil
10	0818EC211059	Uday Malhotra		Uday
11	0818EC211057	Shashit Rao		Shashit
12	0818EC211056	Shivam Ray		Shivam
13	0818EC211055	Shashi Yadav		Shashi
14	0818EC211029	Nari Prasad		Nari
15	0818EC211065	Vivek Lowanshi		Vivek
16	0818EC211054	Rafan Paudyal		Rafan
17	0818EC211003	Abhijeet Chouhan		Abhijeet
18	0818EC211018	Ayush Jadhav		Ayush
19	0818EC211048	Neha Sarmar		Neha
20	0818EC211058	Sumit Gupta		Sumit
21	0818EC211063	Vinay Chouhan		Vinay
22	0818EC211006	Ajay Sharma		Ajay
23	0818EC211025	Harsh Malhotra		Harsh
24	0818EC211036	Mauisha		Mauisha
25	0818EC211052	Sanjana Sen		Sanjana
26	0818EC211007	Anisha Sisodiya		Anisha
27	0818EC211004	Adarsh Sharma		Adarsh
28	0818EC211043	Tanmay Khatri		Tanmay
29	0818EC211001	Ayush Sharma		Ayush
30	0818EC211002	Akshay Tinsare		Akshay
31	0818EC211009	ANKIT MALHOTRA		ANKIT
32	0818EC211037	Mansi Lashkari		Mansi
33	0818EC211050	Rounak Girdwar		Rounak
34	0818EC211026	Himanshi Dodeja		Himanshi
35	0818EC211019	Hrushabh Raghuvanshi		Hrushabh
36	0818EC211027	Himesh Bhardwaj		Himesh
37	0818EC211020	Shubh Chouhan		Shubh
38	0818EC211040	Ranit Chaudhary		Ranit
39	0818EC211016	Ashish Vishwakarma		Ashish
40	0818EC211061	Vaidika Rathore		Vaidika
41	0818EC211013	Anuj Barchhall		Anuj
42	0818EC211060	UTKARSH DUBEY		UTKARSH

43 0818EC211005

ADITYA SHARMA

44 0818EC211033

KOMAL MEHRA

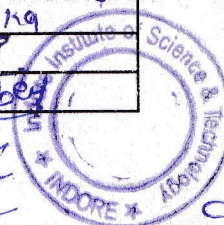
45 0818EC211023

DURYESH TRIPATHI

46 0818EC211045

Prayanshu Jha

Prayanshu Jha

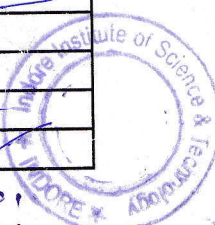


Signature

DATE: 20/05/2022	SUBJECT: Art & Science of PCB Design & Development
TIME: 12:30-3:30 pm	FACULTY NAME: Mr. Ravi Yadav
BRANCH/ YR: ECE/ 2 YR	LAB TECH: Mr. Ravi Dandekar

**PRACTICAL:**

S.NO	ENROLLMENT NO.	STUDENT NAME	P/C NO.	SIGNATURE
46	0818EC211040	Naina Khise		Naina
1	0818EC211011	Anshul Patel	26	Anshul
2	0818EC211029	Kapilalekhna	26	Kapil
3	0818EC211003	Abhijeet Chouhan	25	Abhijeet
4	0818EC211059	Uday Malviya	29	Uday
5	0818EC211058	Sumit Gupta	27	Sumit
6	0818EC211048	Robit Sawner	27	Robit
7	0818EC21101P	Ayush Sodhan	25	Ayush
8	0818EC211021	Digambar Barje	28	Digambar
9	0818EC211063	Vinay Chouhan	28	Vinay
10	0818EC211054	Satish Patidar		Satish
11	0818EC211055	Shashi Yadav	20	Shashi
12	0818EC211056	Shivam Ray	20	Shivam
13	0818EC211024	Nori Malviya	20	Nori
14	0818EC211064	Vishal Solanki		Vishal
15	0818EC211041	Nishita Shinde	22	Nishita
16	0818EC211047	Raksha Kale		Raksha
17	0818EC211019	Ayush Raghunathi		Ayush
18	0818EC211020	Ishum Chouhan		Ishum
19	0818EC211050	Rounak Gadwal		Rounak
20	0818EC211065	Vivek Lawabshi		Vivek
21	0818EC211006	Ajay Sharma		Ajay
22	0818EC211032	Kirti Patidar		Kirti
23	0818EC211027	Himesh Bhardwaj		Himesh
24	0818EC211049	Ronit Choudhary		Ronit
25	0818EC211061	Vedika Rathore		Vedika
26	0818EC211026	Himanshi Dodeja		Himanshi
27	0818EC211028	Jaydeep Singh		Jaydeep
28	0818EC211025	HARSH MAJITHA		Harsh
29	0818EC211009	ANKIT MAJITHA		Ankit
30	0818EC211037	Mansi Lashkari		Mansi
31	0818EC211036	Manisha		Manisha
32	0818EC211052	Sanjana Sen		Sanjana
33	0818EC211007	Anisha Sisodia		Anisha
34	0818EC211004	Adarsh Sharma		Adarsh
35	0818EC211042	Nishita Verma		Nishita
36	0818EC211038	Mansi Tambekar		Mansi
37	0818EC211053	Sanjayani Singh		Sanjayani
38	0818EC211046	Rajeev Singh, Rajput		Rajeev
39	0818EC211035	Mahima Pal		Mahima
40	0818EC211043	Parom Khatri		Parom
41	0818EC211001	Aayush Asaria		Aayush
42	0818EC211002	Abhay Liwari		Abhay
43	0818EC211030	Karish Sisodia		Karish
44	0818EC211066	Yoganshi Sharma		Yoganshi
45	0818EC211016	Ashish Vishwakarma		Ashish



DATE: 20/05/2022	SUBJECT: Art & Science of PCB Design & Development
TIME: 10:00 - 12:00 Noon	FACULTY NAME: Mr. Ravi Yadav
BRANCH/ YR: ECE / I YR.	LAB TECH: Mr. Raju Dawer

PRACTICAL:

S.NO	ENROLLMENT NO.	STUDENT NAME	P/C NO.	SIGNATURE
1	0818EC211059	Uday Malviya		Uday
2	0818EC211057	Satish Patidar		Satish
3	0818EC211011	Anshul Patel	26	Anshul
4	0818EC211029	Kapil Dethiya	26	Kapil
5	0818EC211018	Ayush Jadhav	25	Ayush
6	0818EC211058	Sumit Lumbha	27	Sumit
7	0818EC211003	Abhijeet Chaudhan	25	Abhijeet
8	0818EC211048	Rohit saunwar	27	Rohit
9	0818EC211063	Vinay choudhan	28	Vinay
10	0818EC211021	Digambar Inara	28	Digambar
11	0818EC211055	Shashi Yadav	20	Shashi
12	0818EC211024	Nari Malviya	20	Nari
13	0818EC211056	Shivam Ray	20	Shivam
14	0818EC211064	Vishal Lokanik		Vishal
15	0818EC211041	Nishita Shindhe		Nishita
16	0818EC211020	Bhumi Choudhan		Bhumi
17	0818EC211050	Ranek gadwal		Ranek
18	0818EC211044	Kalsha Kale		Kalsha
19	0818EC211019	Ayush Raghunath		Ayush
20	0818EC211006	Ajay Sharma		Ajay
21	0818EC211027	Himesh Bhandwar		Himesh
22	0818EC211065	Vivek Lawanshi		Vivek
23	0818EC211032	Kirti Patidar		Kirti
24	0818EC211049	Ronit choudhary		Ronit
25	0818EC211061	Vedika Rathor		Vedika
26	0818EC211026	Himanshi Dodeja		Himanshi
27	0818EC211028	Jaydeep Singh		Jaydeep
28	0818EC211025	HARSH MALVIYA		Harsh
29	0818EC211009	ANKIT MALVIYA		Ankit
30	0818EC211037	Mansi Lashkari		Mansi
31	0818EC211036	Manisha		Manisha
32	0818EC211052	Sanyasa Sen		Sanyasa
33	0818EC211007	Amisha Sisodiya		Amisha
34	0818EC211004	Adarsh Sharma		Adarsh
35	0818EC211036	Mahima Pal		Mahima
36	0818EC211042	Nishita Verma		Nishita
37	0818EC211038	Mansi Jamhankar		Mansi
38	0818EC211053	Sangeeta Singh		Sangeeta
39	0818EC211046	Rajveer Singh Rajput		Rajveer
40	0818EC211043	Tanveer Khatib	08	Tanveer
41	0818EC211001	Aayush osaria	08	Aayush
42	0818EC211002	abhay Tiwari	08	Abhay

43. 0818EC211030

44. 0818EC211066

45. 0818EC211016

Karina Sisodiya

Yoganshi Sharma

Ashish Vishwakarma

King

Uday

Satish

Anshul

Kapil

Ayush

Sumit

Abhijeet

Rohit

Vinay

Digambar

Shashi

Nari

Shivam

Vishal

Nishita

Bhumi

Ranek

Kalsha

Ayush

Ajay

Himesh

Vivek

Kirti

Ronit

Vedika

Himanshi

Jaydeep

Harsh

Ankit

Mansi

Manisha

Sanyasa

Amisha

Adarsh

Mahima

Nishita

Mansi

Sangeeta

Rajveer

Tanveer

Aayush

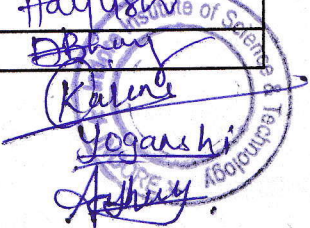
Abhay

Karina

Yoganshi

Ashish

Group - 5



Signature

19/05/2022

Subject: S.R.G. Art & Science of PCB Design & Development

Faculty: Mr. Ravi Yadav

Lab Tech: Mr. Raju Daware & Mr. Deepak Yadav

Branch/Yr: EEE / I Year

Page No: Time: 12:20-3:30  
 DATE: 19/05/2022

### Group - 1

- |                         |                      |                  |
|-------------------------|----------------------|------------------|
| 1. Jyotiraj Singh Jaden | ① Bread board ①      | ① Multimeter ①   |
| 2. Krishna Kushwah      | ② Transformer ①      | ② LED - ①        |
| 3. Naina Akhne          | ③ Bridge Rectifier ① | ③ Resistance - ① |
| 4. Kirti Patidar        | ④ 2C7805 ④           |                  |
|                         | ⑤ Transistor ①       |                  |
|                         | ⑥ Capacitor ②        |                  |
|                         | ⑦ diode ①            |                  |
|                         | ⑧ Aliner ①           |                  |
|                         | ⑨ M-M-6              |                  |
|                         | ⑩ Bulb & Holder ①    |                  |

Name

### Group - 2

5. Mansi Tamhankar
6. Nishita Verma
7. Sanjeevani Singh
8. Rajveer Singh Rajput

Nishita

aligned?

### Group - 3

9. Ayesha Jadhav
10. Anshul Patel
11. Kapil Pothliya
12. Abhijeet Chouhan

Ayesha

### Group :- 4

Submitted

13. Sumit Gupta
14. Vinay Chouhan
15. Rohit Saurer
16. Digamber Barja

### Group - 5

17. Uday Malviya
18. Shubhit Pawar
19. Satish Patidar

Uday



19/05/2022

Group - 1

- |                         |                      |                  |
|-------------------------|----------------------|------------------|
| 1. Jyotiraj Singh Jaden | ① Bread board ①      | ① Multimeter ①   |
| 2. Krishna Kushwah      | ② Transformer ①      | ② LED - ①        |
| 3. Naina Akhne          | ③ Bridge Rectifier ① | ③ Resistance - ① |
| 4. Kirti Patidar        | ④ 2C7805 ④           |                  |
|                         | ⑤ Transistor ①       |                  |
|                         | ⑥ Capacitor ②        |                  |
|                         | ⑦ diode ①            |                  |
|                         | ⑧ Aliner ①           |                  |
|                         | ⑨ M-M-G              |                  |
|                         | ⑩ Bulb & Holder ①    |                  |

Name

Group - 2

5. Mansi Tamhankar
6. Nishita Verma
7. Sanjeerani Singh
8. Rajveer Singh Rajput

Nishita

aligned?

Group - 3

9. Ayesh Jadhav
10. Anshul Patel
11. Kapil Pothliya
12. Abhijeet Chouhan

Ayesh



Group :- 4

Submitted

13. Sumit Gupta
14. Vinay Chouhan
15. Rohit Saurer
16. Digamber Barja

Submitted

Group - 5

17. Uday Malviya
18. Shobhit Pawar
19. Satish Patidar

Uday

### Group - 6

- 20 Shashi Yadav  
21 Shivan Ray  
22 Hari Prasad

Shivan

### Group - 7

- 23 Raksha Kale  
24 Ayush Raghevarshi  
25 Nishita Shindhe

Nishita

### Group - 8

- 26 NITAY SHARMA  
27 HARSH MALVIYA  
28 VIVEK LOWANGHI  
29 ANKIT MALVIYA

Ankit

### Group 9.

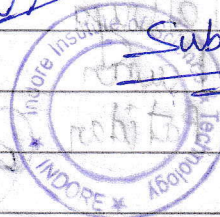
- 30 Mansi Lashkari  
31 Rounak Gadwal  
32 Himanshi Dodeja

Mansi

### Group 10

- 33 VAIDIKA RATHORE  
34 HOMESH BHARDWAJ  
35 BHUMI CHOUHAN  
36 RONIT CHOUDHARY

Shikha



~~Group A.I~~ Group 11

①

37. ④

38.

39.

Amisha Sisodia  
Adarsh Sharma  
HarishaManisha

Holder 02

## Group 12

Alineer. Not given.

40. Mahima Pal

41. Karina Sisodiya

42. Yoganshi Sharma

43. Ashish Vishwakarma

Mahima Submitted

## Group - 13 (13)

44 ①

ADITYA SHARMA

45 ②

ANUS PANCHAL

46 ③

UTKARSH DUBEY

~~Transformer~~ } Not given.  
Alineer.Sharma

## Group - 14 (14)

47) 1)

Abhay Tiwari

48) 2)

Aayush Osodiya

49) 3)

Pawan Kumar

~~Transformer~~ } Not given student  
AlineerPastor

## Group - (15)

50) ①

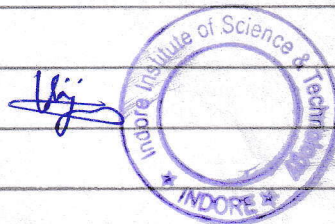
Vijay Sahu

51) 2)

Ankush Yadav

52) 3)

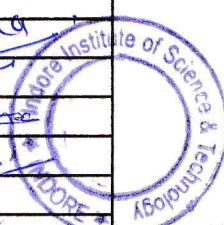
Priganshu Jha

4. Store. 4.  
4. Multitask.

DATE: 19/05/2022	SUBJECT: Art & Science of PCB Design & Fabrication <sup>Development</sup>
TIME: 10:00 - 12:00 Noon	FACULTY NAME: Mr. Ravi Yadav
BRANCH/ YR: ECE / I Yr	LAB TECH: Mr. Ravi Daware & Mr. Deepak Rathor

PRACTICAL:

45	0818EC211020	Bhumi Chouhan	04	Bhumi
S.NO	ENROLLMENT NO.	STUDENT NAME	P/C NO.	SIGNATURE
1	0818EC211013	Anuj panchal	21	Anuj
2	0818EC211028	Jaydeep Singh	22	Jaydeep
3	0818EC211046	Rajmurti Singh Rajput	23	Rajmurti
4	0818EC211053	Indrajeet Singh	23	Indrajeet
5	0818EC211042	Nishita Verma	24	Nishita
6	0818EC211038	Mansi Tamankar	24	Mansi
7	0818EC211029	Kapil Dethliya	26	Kapil
8	0818EC211011	Anshul Patel	26	Anshul
9	0818EC211003	Abhijeet Chouhan	28	Abhijeet
10	0818EC211018	Ayush Jadhav	25	Ayush
11	0818EC211058	Sumit Gupta	27	Sumit
12	0818EC211063	Vinay Chouhan	27	Vinay
13	0818EC211048	Rohit U. Saurney	28	Rohit
14	0818EC211065	Vivek Louwanshi	28	Vivek
15	0818EC211010	Digambar Bawari	30	Digambar
16	0818EC211057	SMOBHIT PAWAR	30	Smobhit
17	0818EC211059	Uday Malviya	29	Uday
18	0818EC211066	Vaganshi Sharma	29	Vaganshi
19	0818EC211024	Hari Parsad	20	Hari
20	0818EC211055	Shashi Yadav	20	Shashi
21	0818EC211056	Shivam Ray	20	Shivam
22	0818EC211035	Mahima Pal	10	Mahima
23	0818EC211030	Kareena Sisodiya	09	Kareena
24	0818EC211054	Satish Patidar	09	Satish
25	0818EC211019	Ayush Raghuvanshi	17	Ayush
26	0818EC211047	Raksha Kale	18	Raksha
27	0818EC211034	Kulshra Keshwani	18	Kulshra
28	0818EC211026	Himanshi Dadeji	08	Himanshi
29	0818EC211027	Homesh Bhandwaj	07	Homesh
30	0818EC211060	VIKASH DUBEY	05	Vikash
31	0818EC211005	ADITYA SHARMA	05	Aditya
32	0818EC211062	VIJAY SAHU	06	Vijay
33	0818EC211045	Pranav Kumar	06	Pranav
34	0818EC211049	Ranit Chaudhary		Ranit
35	0818EC211050	Rounak Godwal	04	Rounak
36	0818EC211037	Mansi Lashkari	04	Mansi
37	0818EC211036	Mamisha		Mamisha
38	0818EC211007	Amisha Sisodiya	12	Amisha
39	0818EC211004	Adarsh Sharma	02	Adarsh
40	0818EC211061	Vaidika Rathor	12	Vaidika
41	0818EC211043	Ravankumar	02	Ravankumar
42	0818EC211002	Abhay Tiwari	02	Abhay
43	0818EC211001	Ayush Saxena	02	Ayush



DATE: 18/05/2022	SUBJECT: Art & Science of PCB Design & Development
TIME: 12:20 - 3:30 pm	FACULTY NAME: Mr. Ravi Yadav
BRANCH/ YR: ELE / I YR.	LAB TECH: Mr. Raju Dawar & Mr. Deepak Rathor
PRACTICAL:	

S.NO	ENROLLMENT NO.	STUDENT NAME	P/C NO.	SIGNATURE
1	0818EC211002	Abhay Tiwari	02	@bhay
2	—1—043	Pawan Khatri	02	Pawan
3	—1—001	Ayush Asariya	02	Ayush
4	0818EC211004	Adarsh Sharma	02	Adarsh
5	0818EC211047	Rakesh Kale	03	Rakesh
6	0818EC211030	Kaushik Sisodia	04	Kaushik
7	0818EC211035	Mahima Pal	04	Mahima
8	0818EC211041	Nishita Shindave	06	Nishita
9	0818EC211062	Vijay Sahu	06	Vijay
10	0818EC211045	Priyanshu Jha	05	Priyanshu
11	0818EC211027	Himesh Bhardwaj	07	Himesh
12	0818EC211026	Himanshi Dodeja	08	Himanshi
13	0818EC211020	Bhumi Choudhan	08	Bhumi
14	0818EC211038	Mansi Jamhankar	19	Mansi
15	0818EC211042	Nishita Verma	19	Nishita
16	0818EC211046	Rajveer S. Rajput	20	Rajveer
17	0818EC211034	Krishna Kushwah		Krishna
18	0818EC211064	Vishal Salanki		Vishal
19	0818EC211024	Hari Malviya		Hari
20	0818EC211055	Shashi Yadav		Shashi
21	0818EC211056	Shivam Roy		Shivam
22	0818EC211019	Ayush Raghunathi		Ayush
23	0818EC211010	Ankush Yadav		Ankush
24	0818EC211009	Ankit Malviya		Ankit
25	0818EC211025	Harsh Malviya		Harsh
26	0818EC211006	Ajay Sharma		Ajay
27	0818EC211049	Rohit Choudhary		Rohit
28	0818EC211050	Rounak gadwal	04	Rounak
29	0818EC211052	Ranjana Sen	05	Ranjana
30	0818EC211011	Anshul Patel	26	Anshul
31	0818EC211029	Kapil Dethiga	26	Kapil
32	0818EC211003	Abhijeet Choudhan	25	Abhijeet
33	0818EC211018	Ayush Jadhav	25	Ayush
34	0818EC211058	Sumit Gupta	27	Sumit
35	0818EC211063	Ninay Choudhan	24	Ninay
36	0818EC211048	Rohit Samra	28	Rohit
37	0818EC211065	Vivek Lowanishi	28	Vivek
38	0818EC211059	Uday Malviya	30	Uday
39	0818EC211054	Satish Patidar	29	Satish
40	0818EC211066	Yoganshi Sharma	29	Yoganshi
41	0818EC211061	Vaidika Rathore	12	Vaidika
42	0818EC211036	Mamisha	12	Mamisha

43 0818EC21107 Amisha Sisodia 12

44 0818EC211013 Anupam Chahal 21

45 0818EC211028 Rajdeep Singh 22

Rajdeep Singh



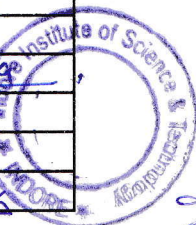
DATE: 18/05/2022	SUBJECT: ART & SCIENCE OF PCB Design & Development
TIME: 10:00-12:00 Noon	FACULTY NAME: Mr. Ravi Yadav
BRANCH/ YR: ECE 1 <sup>st</sup> YR	LAB TECH: Mr. Raju Dawar & Mr. Deepak Rathore

PRACTICAL:

(44)	0818EC211006	himanshi Dodeja	26	himanshi
S.NO	ENROLLMENT NO.	STUDENT NAME	P/C NO.	SIGNATURE
1	0818EC211001	Ayush Doshiya	01	Ayush
2	0818EC211004	Adarsh Sharma	01	Adarsh
3	0818EC211043	Ravi Kumar	02	Ravi
4		Monisha		
5		Vidika Rathore		
6		Amisha Sisodiya		
7	0818EC211035	Mohina Pal	04	Mohina
8	0818EC211030	Kavina Sisodiya	04	Kavina
9	0818EC211047	Raksha Kale	03	Raksha
10	0818EC211030	Kavina Sisodiya	04	Kavina
11	0818EC211041	Nishita Shindhye	06	Nishita
12	0818EC211062	Vijay Sahu	06	Vijay
13	0818EC211045	Priyanshu Jha	05	Priyanshu
14	0818EC211027	Himesh Bhandari	07	Himesh
15	0818EC211020	Shruti Chouhan	08	Shruti
16	0818EC211046	Rajesh Singh Rathore		Rajesh
17	0818EC211042	Nishita Sharma	020	Nishita
18	0818EC211038	Mansi Tamhankar		Mansi
19	0818EC211034	Krishna Kushwah		Krishna
20	0818EC211064	Vishal Solanki		Vishal
21	0818EC211019	Ayush Panchal		Ayush
22	0818EC211066	Yoganshi Sharma	29	Yoganshi
23	0818EC211054	Satish Patidar	29	Satish
24	0818EC211059	Uday Malviya	30	Uday
25	0818EC211048	Rohit Samant	28	Rohit
26	0818EC211055	Vivek Lawanshi	29	Vivek
27	0818EC211058	Sumit Gupta	27	Sumit
28	0818EC211063	Vinay Chouhan	27	Vinay
29	0818EC211003	Abhishek Chouhan	25	Abhishek
30	0818EC211018	Ayush Jadhav	25	Ayush
31	0818EC211029	Kapil Dethliya	26	Kapil
32	0818EC211011	Anshul Patel	11	Anshul
33	0818EC211060	UTKARSH DUBEY	C-274/24	Utkarsh
34	0818EC211005	ADITYA SHARMA	23	Aditya
35	0818EC211037	MANSI TASHKARI	23	Mansi
36	0818EC211013	Anuj Panchal	21	Anuj
37	0818EC211028	Jagrup Singh	22	Jagrup
38	0818EC21107	Amisha Sisodiya	12	Amisha
39	0818EC211036	Manisha	12	Manisha
40	0818EC211061	Vaidika Rathore	12	Vaidika
41	0818EC211052	Ranjana Sen	5	Ranjana
42	0818EC211050	Renuka gadwal	6	Renuka

43 0818EC211049 Rohit Chaudhary

Rohit



DATE: 17/05/2022	SUBJECT: Art & Science of PCB Design & Development
TIME: 10:00 - 12:00 Noon	FACULTY NAME: Mr. Ravi Yadav.
BRANCH/ YR: ECE 1 <sup>st</sup> Yr.	LAB TECH: Mr. Raju Dawar & Mr. Deepak Rathor

PRACTICAL:

S.NO	ENROLLMENT NO.	STUDENT NAME	P/C NO.	SIGNATURE
1	0818EC211004	Adarsh Sharma	01	Adarsh
2	0818EC211043	Tarun	02	Tarun
3	11-001	Ayush Gariya	01	Ayush
4	0818EC211036	Manisha	22	Manisha
5	0818EC211007	Amisha Sisodiya	22	Amisha
6	0818EC211050	Rounak gadwal	6.	Rounak
7	0818EC211052	Saurabh Alex	5	Saurabh
8	0818EC211049	Konit Chaudhary		Konit
9	0818EC211006	Ajay Sharma		Ajay
10	0818EC211025	Harsh Malviya		Harsh
11	0818EC211009	Ankit Malviya		Ankit
12	0818EC211010	Ankur Yadav		Ankur
13	0818EC211019	Ayush Raghunathan		Ayush R.
14	0818EC211038	Mansi Chankar	20	Mansi
15	0818EC211042	Nishita Verma	20	Nishita
16	0818EC211046	Rajesh Singh Rajput	20	Rajesh
17	0818EC211034	Krishna Kushwah		Krishna
18	0818EC211064	Vishal Salunkhe		Vishal
19	0818EC211066	Yoganshi Sharma	29	Yoganshi
20	0818EC211059	Uday Malviya	30	Uday
21	0818EC211063	Vinay Choudhan	27	Vinay
22	0818EC211058	Sumit Gupta	27	Sumit
23	0818EC211048	Rohit Samra	28	Rohit
24	0818EC211065	Vivek Louwshi	28	Vivek
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26	0818EC211011	Anshul Patel	11	Anshul
27	0818EC211018	Ayush Jadhav	25	Ayush
28	0818EC211005	ADITYA SHARMA	23	Aditya
29	0818EC211060	UTKARSH DUBEY	24	Utkarsh
30	0818EC211037	MANSI LASHKARI	23	Mansi
31	0818EC211013	Anuj Panchal	21	Anuj
32	0818EC211028	Jaydeep Singh	22	Jaydeep
33	0818EC211035	Mahima Pal	04	Mahima
34	0818EC211030	Kavina Sisodiya	04	Kavina
35	0818EC211047	Raksha Kate	03	Raksha
36	0818EC211041	Nishita Shindhe	06	Nishita
37	0818EC211062	Vijay Sahu	06	Vijay
38	0818EC211045	Prayansh Jha	05	Prayansh
39	0818EC211020	Rhimi Choudhan	08	Rhimi
40	0818EC211027	Homesh Bhargava	07	Homesh
41	0818EC211016	Aashish Vishwakarma		Aashish
42	0818EC211006	Himanshi Dadya	20	Himanshi



Stream

Classwork

People

Grades

All topics

Create



## Simulate the Power Supply In proteus Software :

Simulate the Power Supply In proteus...

Posted May 19

## Power Supply Circuit On eagle Software :

Power Supply Circuit On eagle Softw...

Posted May 19

## Light, Temp, Soil Moisture, Ir Sensors pdf :

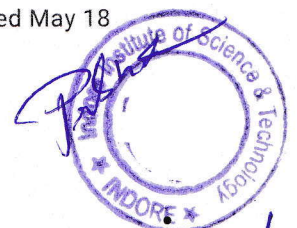
Light, Temp, Soil Moisture, Ir Sensors ...

Posted May 18

## Basic Electronics , Power Supply, Relay pdf :

Basic Electronics , Power Supply, Rel...

Posted May 18



## ② Pcb Design Process & Eagle Software PDF :



Stream

Classwork

People

Grades

## Simulation Introduction Pdf



Simulation Introduction Pdf

Posted May 18

## Eagle Software Lite



Eagle Software Lite

Posted May 18

## Proteus Software



Proteus Software

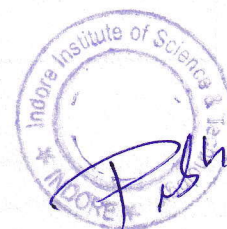
Posted May 16

## Eagle Software



Eagle Software

Posted May 16





Instructions

Student work

## Power Supply Circuit On eagle Software



25

Turned in

31

Assigned

All



MANISHA -



3 attachments

Turned in



NAINA AHIRE

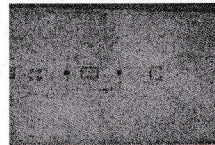


2 attachments

Turned in



Digmaber Barfa



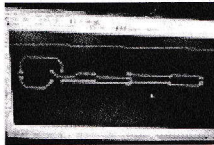
2 attachments

Turned in

HOMESH  
BHARDWAJ

4 attachments

Turned in

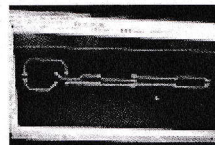
BHUMI  
CHOUHAN

4 attachments

Turned in

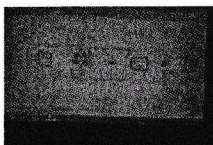


KAPIL DETHLIYA



4 attachments

Turned in

ROUNAK  
GADWAL

4 attachments

Turned in



SUMIT GUPTA

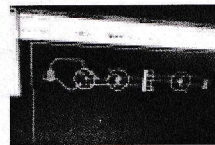


5 attachments

Turned in



AYUSH JADHAV

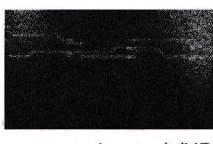
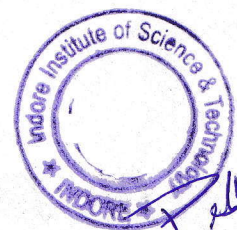
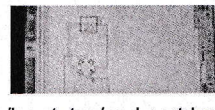


2 attachments

Turned in



RAKSHA KALE

MANSI  
LASHKARIVIVEK  
LOWANSHI



# SIG on Art and Science of PCB Design and Development

EC 2021 - 2025

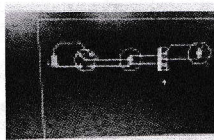


Instructions

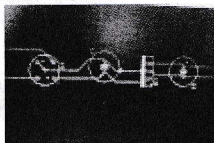
Student work



ANKIT MALVIYA



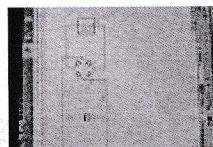
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HARSH  
MALVIYA

IMG-20220523-WA0...  
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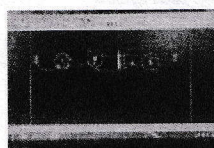
UDAY MALVIYA



WhatsApp Image 20...  
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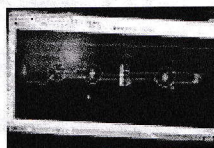
MAHIMA PAL



2 attachments  
Turned in



ANSHUL PATEL



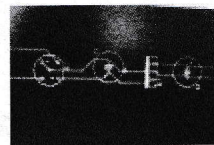
4 attachments  
Turned in

AYUSH  
RAGHUWANSHI

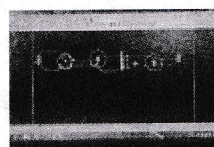
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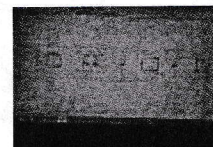
Ajay Sharma



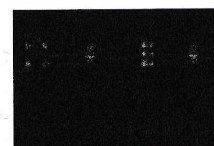
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YOGANSHI  
SHARMA

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NISHITA  
SHINDHVE

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AMISHA  
SISODIYA

2 attachments  
Turned in

KARINA  
SISODIYA

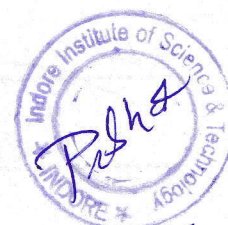
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NISHITA VERMA



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ASHISH  
VISHVAKARMARONIT  
CHOUDHARYABHIJEET  
CHOUHAN

*Signature*



## SIG on Art and Science of PCB Design and Development

EC 2021 - 2025



Instructions

Student work

VINAY  
CHOUHANNo attachments  
Assigned

ANUJ DAYMA

No attachments  
AssignedHIMANSHI  
DODEJANo attachments  
AssignedUTKARSH  
DUBEYNo attachments  
Assigned

PRIYANSHU JHA

No attachments  
AssignedKARTIK  
KANDHARINo attachments  
Assigned

PAWAN KUMAR

No attachments  
AssignedAAYUSH  
OSARIYANo attachments  
Assigned

ANUJ PANCHAL

No attachments  
Assigned

KIRTI PATIDAR

No attachments  
Assigned

SATISH PATIDAR

No attachments  
AssignedSHOBHIT  
PAWARNo attachments  
Assigned

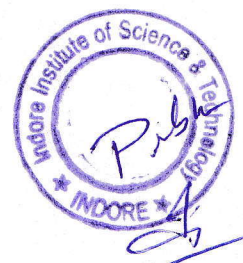
VAIDIKA



ANJANA SAHU



VIJAY SAHU





# SIG on Art and Science of PCB Design and Development

EC 2021 - 2025



Instructions

Student work



ROHIT SAWNER



No attachments  
Assigned



SANJANA SEN



No attachments  
Assigned

ADARSH  
SHARMA

No attachments  
Assigned

ADITYA  
SHARMA

No attachments  
Assigned



Aditya Sharma



No attachments  
Assigned



JAYDEEP SINGH



No attachments  
Assigned



RAJVEER SINGH



No attachments  
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SANJEEVANI  
SINGH

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VISHAL  
SOLANKI

No attachments  
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DURGESH  
SUPARE

No attachments  
Assigned

MANSI  
TAMHANKAR

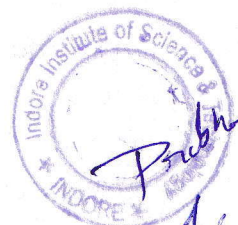
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ABHAY TIWARI



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# SIG on Art and Science of PCB Design and Development

EC 2021 - 2025



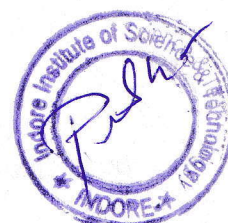
Instructions

Student work

No attachments

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Assigned



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# Art & Science of PCB Design SIG McQ Test

24th May 2022

Note:- Submit the test with in 35 Minute after That no one can able to submit .

\* Required

1. Email \*

---

2. Applicant Full Name \*

---

3. Applicant Contact Number \*

---

4. Enrollment Number \*

---

5. 1) A relay is used to ?

*Mark only one oval.*

- ☐ a) Break the fault current
- ☐ b) Sense the fault
- ☐ c) Sense the fault and direct to trip the circuit breaker
- ☐ d) All of these



6. 2) Electro mechanical relay's (EMR) needs to be manually turned "ON" and "OFF".?

*Mark only one oval.*

- ☐ a) True  
☐ b) False

7. 3) How many pins are present in the LDR Sensor?

*Mark only one oval.*

- ☐ a) 1  
☐ b) 4  
☐ c) 2  
☐ d) 3

8. 4) What is the full form of the LDR Sensor?

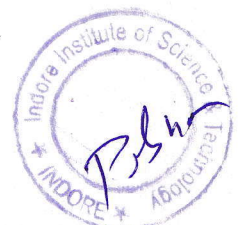
*Mark only one oval.*

- ☐ a) Lithium Diode Resistor  
☐ b) Light Diaphragm Resistor  
☐ c) Lithium Disk Resistor  
☐ d) Light Dependent Resistor

9. 5) What kind of sensor is the LDR Sensor?

*Mark only one oval.*

- ☐ a) Passive  
☐ b) Active  
☐ c) Radio  
☐ d) Pressure based



10. 6) Which sensor is lm35?

*Mark only one oval.*

- ☐ 1. Integrated-circuit temperature sensor
- ☐ 2. A carbon film resistor
- ☐ 3. A gas detection device
- ☐ 4. All of Above

11. 7) How many pins does LM35 has?

*Mark only one oval.*

- ☐ 1. One
- ☐ 2. Two
- ☐ 3. Three
- ☐ 4. Four

12. 8) \_\_\_\_\_ allows the user to control electronic components.

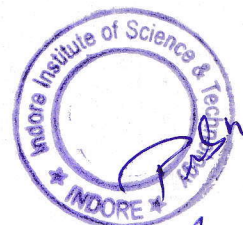
*Mark only one oval.*

- ☐ Android API
- ☐ RETful API
- ☐ MQTT API
- ☐ CoAP API

13. 9) LM35 sensor is rated for which temperature range?

*Check all that apply.*

- ☐ 1. -35° to +190°C
- ☐ 2. -45° to +170°C
- ☐ 3. -55° to +150°C
- ☐ 4. -65° to +125°C



14. 10) \_\_\_\_\_ is an example of fixed positive voltage regulator?

Check all that apply.

- ☐ 1. IC7805
- ☐ 2. IC7905
- ☐ 3. IC7906
- ☐ 4. None of the above

15. 11) \_\_\_\_\_ is an example for fixed negative voltage regulator?

Mark only one oval.

- ☐ 1. IC7805
- ☐ 2. IC7905
- ☐ 3. IC7906
- ☐ 4. None of the above

16. 12). The maximum input voltage of the LM78MXX IC range is \_\_\_\_\_?

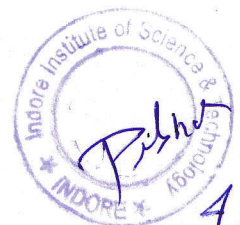
Mark only one oval.

- ☐ 1. 35V
- ☐ 2. 40V
- ☐ 3. 45V
- ☐ 4. 50V

17. 13). The fixed positive voltage regulators provides voltage in the range of \_\_\_\_\_?

Mark only one oval.

- ☐ 1. +3 to +24V
- ☐ 2. -3 to -24V
- ☐ 3. +5 to +24V
- ☐ 4. -5 to -24V



18. 14). In which type of regulator does 7805 IC is used?

*Mark only one oval.*

- ☐ 1. Fixed output voltage regulator
- ☐ 2. Current regulator
- ☐ 3. Adjustable output regulator
- ☐ 4. All of the above

19. 15) The short circuit test in the transformer is performed on?

*Mark only one oval.*

- ☐ 1. High voltage side
- ☐ 2. light voltage side
- ☐ 3. Both
- ☐ 4. Either option a or b.

20. 16). \_\_\_\_\_ stores charge ?

*Mark only one oval.*

- ☐ 1. Capacitors
- ☐ 2. Resistors
- ☐ 3. Both a and b
- ☐ 4. None of the above

21. 17). The nominal capacitance of the paper capacitors is around \_\_\_\_\_?

*Mark only one oval.*

- ☐ 1. 0.1uF to 10uF
- ☐ 2. 0.01uF to 10uF
- ☐ 3. 0.001uF to 10uF
- ☐ 4. 0.5uF to 10uF



22. 18). The typical tolerance of the paper capacitors is \_\_\_\_\_?

Mark only one oval.

- ☐ 1. 2%
- ☐ 2. 4%
- ☐ 3. 6%
- ☐ 4. 10%

23. 19). Light emitting diodes emits light when it is in \_\_\_\_\_?

Mark only one oval.

- ☐ (a) forward biased
- ☐ b) reverse biased
- ☐ c) zero biasing
- ☐ d) infinite biasing

24. 20). In LED's light energy is emitted when \_\_\_\_\_?

Mark only one oval.

- ☐ a) electrons falls from conduction band into holes is valence band
- ☐ b) electrons falls from valence band into holes is conduction band
- ☐ c) electrons and holes recombine in forbidden energy gap
- ☐ (d) both 'b' and 'c'

25. 21). Limiting resistance(R) is used in LED for \_\_\_\_\_?

Mark only one oval.

- ☐ a) controlling current flowing through LED
- ☐ b) controlling colour of emitted light
- ☐ c) both 'a' and 'b'
- ☐ d) neither a nor b



26. 22). What is full form of LED ?

*Mark only one oval.*

- ☐ (a) Low Emitting Diode
- ☐ (b) Light Emitting Diode
- ☐ (c) Light Emitting Data
- ☐ (d) Light Encounter Diode

27. 23). The advantage of LED is \_\_\_\_\_?

*Mark only one oval.*

- ☐ (a) Long life
- ☐ (b) Fast on-off switching
- ☐ (c) Low operating voltage
- ☐ (d) All of the above

28. 24). The capacitance is a circuit component that oppose the change in circuit?

*Mark only one oval.*

- ☐ A. Current
- ☐ B. Voltage
- ☐ C. Impedance
- ☐ D. None of the above

29. 25). Which leg of the LED is the positive side?

*Mark only one oval.*

- ☐ 1. The longer one
- ☐ 2. The shorter one
- ☐ 3. There is no positive side
- ☐ 4. They are both positive



30. 26). Regulated power supplies are used in \_\_\_\_\_?

*Mark only one oval.*

- ☐ 1. Mobile chargers
- ☐ 2. Measurement devices
- ☐ 3. Computers
- ☐ 4. All of the above

31. 27). The voltage regulator output impedance is \_\_\_\_\_?

*Mark only one oval.*

- ☐ 1. Very small
- ☐ 2. High
- ☐ 3. Very high
- ☐ 4. None of the above

32. 28). The regulated DC power supply also called \_\_\_\_\_?

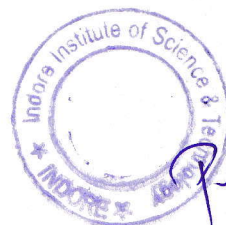
*Mark only one oval.*

- ☐ 1. Linear power supply
- ☐ 2. Non-linear power supply
- ☐ 3. Both a and b
- ☐ 4. None of the above

33. 29). \_\_\_\_\_ are the building blocks of regulated DC power supply?

*Mark only one oval.*

- ☐ 1. Rectifier, DC filter
- ☐ 2. Regulator
- ☐ 3. Step down transformer
- ☐ 4. All of the above



34. 30). The rectification is a process of converting \_\_\_\_\_?

*Mark only one oval.*

- ☐ Alternating current into direct quantity
- ☐ Alternating voltage into direct quantity
- ☐ Alternating current or voltage into direct quantity
- ☐ None of the above

35. 31). Rectification can be done by using \_\_\_\_\_?

*Mark only one oval.*

- ☐ Transformers
- ☐ Conductors
- ☐ Bridge rectifiers
- ☐ None of the above

36. 32). The output of the rectification is \_\_\_\_\_?

*Mark only one oval.*

- ☐ Unidirectional
- ☐ Bidirectional
- ☐ Multidirectional
- ☐ None of the above

37. 33). The unregulated power supply used in \_\_\_\_\_?

*Mark only one oval.*

- ☐ Relays
- ☐ Actuators
- ☐ Solenoids
- ☐ All of the above



38. 34). The advantages of the traditional switching DC power supply are \_\_\_\_?

*Mark only one oval.*

- ☐ Small size
- ☐ Light-weight
- ☐ Cost-effective
- ☐ All of the above

39. 35). The advantages of linear DC power supply are \_\_\_\_\_?

*Mark only one oval.*

- ☐ Output transient response is fast
- ☐ Output noise is low
- ☐ Common mode noise current is low
- ☐ All of the above

---

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Art & Science of PCB Design S

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QuestionsResponses61Settings

Total points: 35

Insights

Average22.92 / 35 points

Median23 / 35 points

Range13 - 33 points

Total points distribution

Points scored	# of respondents
13	1
14	1
15	1
16	3
17	1
18	6
19	3
20	4
21	5
22	2
23	4
24	4
25	7
26	5
27	5
28	1
29	3
30	3
31	1
32	1

Frequently missed questions

10:52 AM

5/26/2022

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Art & Science of PCB Design S



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Questions

Responses

61

Settings

Total points: 35

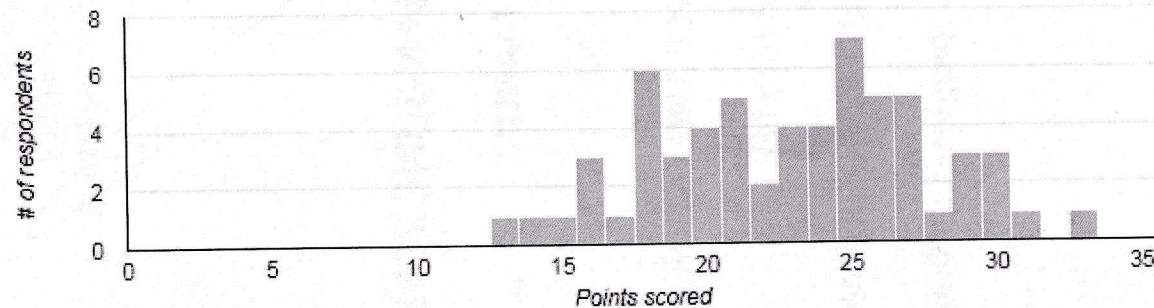
## Insights

**Average**  
22.92 / 35 points

**Median**  
23 / 35 points

**Range**  
13 - 33 points

Total points distribution



## Frequently missed questions ?

Puln  
R



# Final Feedback of Art & Science Of PCB Design & Development

62 responses

Publish analytics



## Name of Student

62 responses

Vivek Lowanshi

Hari Prasad malviya

Shobhit pawar

Ayush jadhav

VISHAL SOLANKI

Kirti patid

KOMAL MEGHWAL

Ayush Raghuwanshi

AYUSH OSARIYA

Harsh Malviya

Adarsh Sharma

Karina sisodiya

Satish Patidar

Anjana Sahu

Manisha

Abhay Tiwari

Utkarsh Dubey

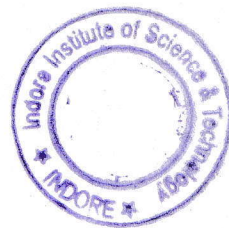
Himanshi dodeja

Sumit gupta

Anuj Dayma

Aditya Sharma

Kapil Dethliya



Anuj Panchal

Krishna kushwah

Anshul patel

Shashi Yadav

Ashish vishvakarma

Durgesh supare

Vinay chouhan

Ashima kuril

Mansi Tamhankar

Kirti patidar

Ankit Malviya

Priyanshu jha

Jaydeep Singh Jadon

Bhumi Chouhan

Rajveer Singh Rajput

Yoganshi sharma

Ronit choudhary

ROUNAK GADWAL

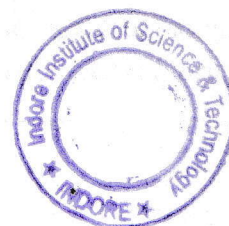
Nishita Shindhve

NAINA AHIRE

Homesh Bhardwaj

Amisha sisodiya

Ankush Yadav



Rohit Sawner

Mahima Pal

Sanjana sen

Mayur Jadhaw

Sanjeevani singh

Vijay Sahu

Pawan kumar

Ajay sharma

Nishita Verma

Abhijeet Chouhan

Raksha kale

Digamber Barfa

Mansi lashkari


Shivam ray

Anushka Kuril

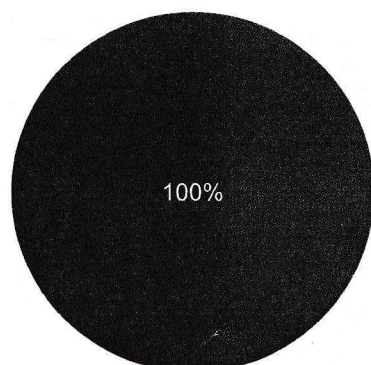
Vaidika rathore

Durgesh Tripathi

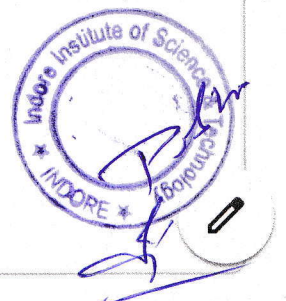
Semester /Year

 Copy


62 responses



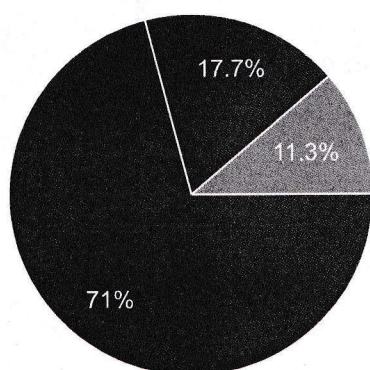
- First Year
- Second Year
- Third Year
- Fourth Year



1. The presenter/lecturer/trainer/facilitator(s) was/were knowledgeable


 Copy

62 responses

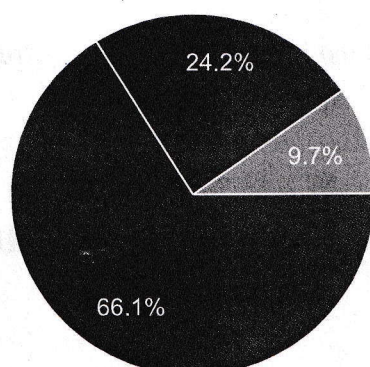


● Very Satisfied  
● Satisfied  
● Good  
● Average

2. The presenter/lecturer/trainer/facilitator(s) was/were well-prepared

 Copy

62 responses

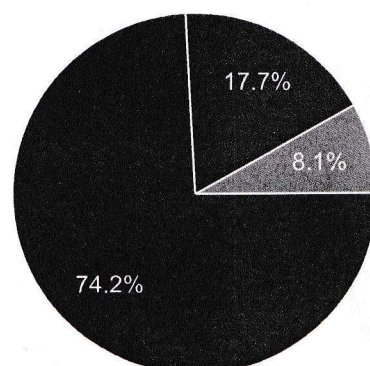


● Very Satisfied  
● Satisfied  
● Good  
● Average

3. The content of the workshop/training/seminar was useful.

 Copy

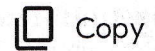
62 responses



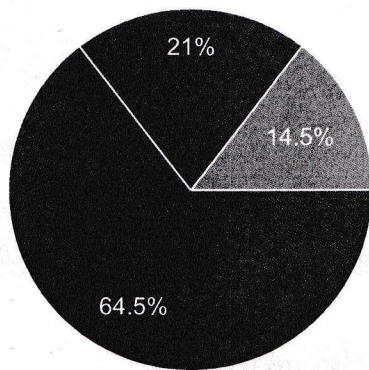
● Very Satisfied  
● Satisfied  
● Good  
● Average



4. The workshop/training/seminar/course has met the stated objectives fully.



62 responses

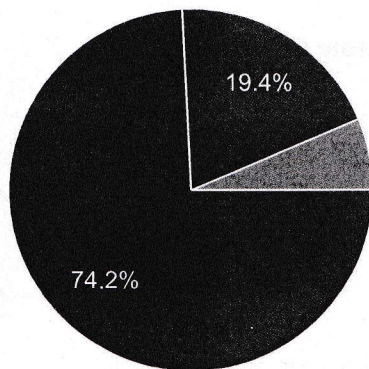


- Very Satisfied
- Satisfied
- Good
- Average

5. I would be interested in attending a follow-up, more advanced workshop on this same subject



62 responses

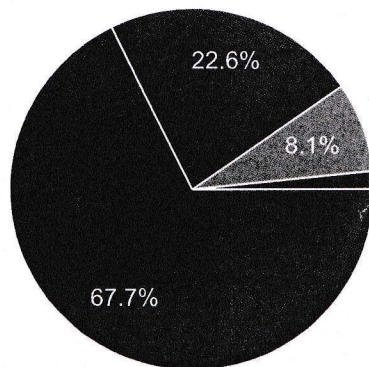


- Very Satisfied
- Satisfied
- Good
- Average

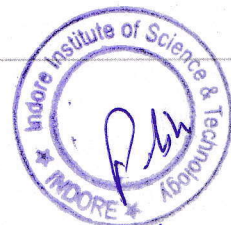
6. How would you rate today hands-on practical session of the workshop



62 responses



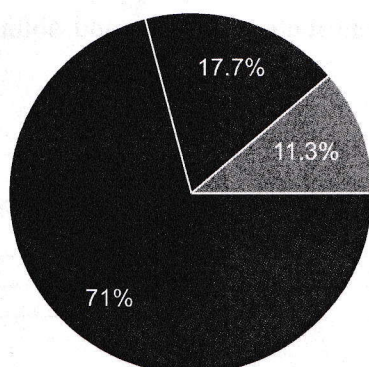
- Very Satisfied
- Satisfied
- Good
- Average



7. Is this workshop helpful for academic/competitive growth?


 Copy

62 responses

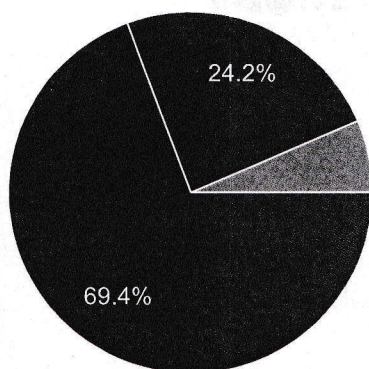


● Very Satisfied  
● Satisfied  
● Good  
● Average

8. Is this workshop helpful for making your minor/major/competition projects?


 Copy

62 responses

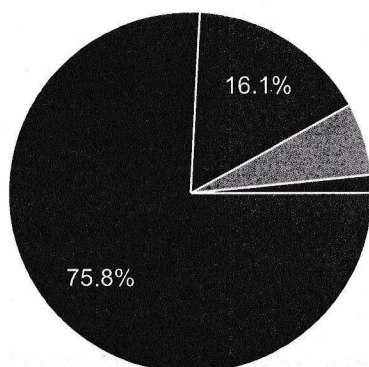


● Very Satisfied  
● Satisfied  
● Good  
● Average

9. How was your experience about the workshop venue/facility?

 Copy

62 responses



● Very Satisfied  
● Satisfied  
● Good  
● Average

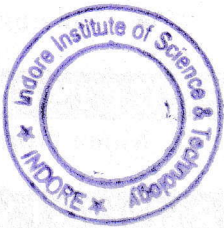
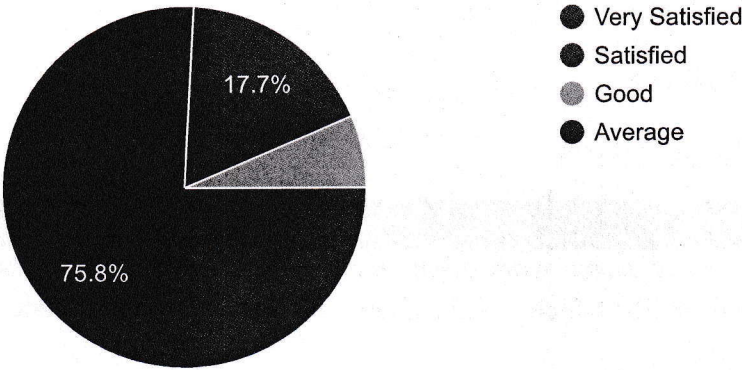


*Handwritten signature*

10. Rate Overall Workshop

 Copy

62 responses



*Prash*  
*Sh*

## Additional Remarks if any

46 responses

I'm so happy to have a knowledge.

Very best trainer

BEST CLASS

Teacher was free and cool....with the student

We have gained alot of knowledge throughout the sig .we want to learn more

I really liked this SIG please start the SIG again.Please sir.

SIG is very good and new things we can learn about software and also hardware

Everthing is done well and perfectly.

This SIG is very useful to us. We learnt many things from this training.sir is very good trainer.

it is to very good for me or for everyone, I have learn to much good things which is helpful to my life.

I felt very pleasure in attending workshop and learn many things and I believe that this workshop will help me in future. Thank u sir

very knowledgeable and it is a fabulous experience for me. Specially hardware part.

First of all the trainer sir was very good and it was a very awesome experience to work with them and my experience in this Sig was very good it is very knowledgeable and it gaved me to learn new things which will help me in the future so thanks again to all the supporting team and special thanks to the Ravi sir

My experience was satisfied...the time we spend in sig was worth it , thank you sir

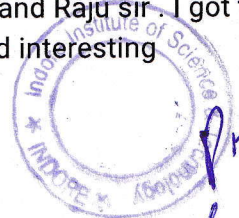
Satisfied from everything like practicals and training

I liked sig ,its very helpful for me and all over student thanx for madenme knowledge person

This SIG was very good , it was a great experience to work with Ravi sir and Raju sir . I got the knowledge about circuit board and design . All over it was very good and interesting

Best trainer and knowledgeable teacher. Good SIG time

Enjoying SIG



Best trainer

Very good

Very Good sig for us and very good trainer we have got and we have learned many things which helps in our future

Very sincere and punctual sir!

This SIG very knowledgeable for me and everyone and it gives many experience

We got a great experience in these 5 days of SIG . We come to know about the PCB Designing through software like PROTEUS & EAGLE . RAVI sir taught us very well . He helped us to overcome the problems during making of our hardwares . I'm very satisfied with the Sir as well as the SIG.

Thanks for your hard work Sir "I'm really happy with your determination to finish this project. I know it wasn't easy, but I knew you could do it. Your helpful attitude makes it clear that you can continue to take on new challenges and grow with the company. Thank you for your extra effort."

Sig is very useful to us. we learn many new things in sig .

Practical sir aapne bhut best karaya

Excellent experience

Thankyou sir you are amazing.

Experience is very well and statisfied

This SIG's are very useful for me in future. I am very satisfied for this and this helps me to bright future in this field.

The lecturars and the trainers was very good and train us very helpfull things for are future and satisfied for doing practicals and

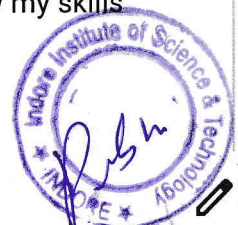
Very good training

It's great opportunity to attend this SIG of PCB design . it's helpful for me to grow my skills

It is very interesting for all the students .

This SIG's are very knowledgeable for me and sir is also good.

The SIG is very helpful for me



learned a lot .

Knowledgeable trainer we had got for Art & Science Of PCB Design & Development .

Good

Great learning experience.

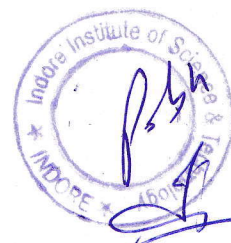
Teacher was free and cool to the students

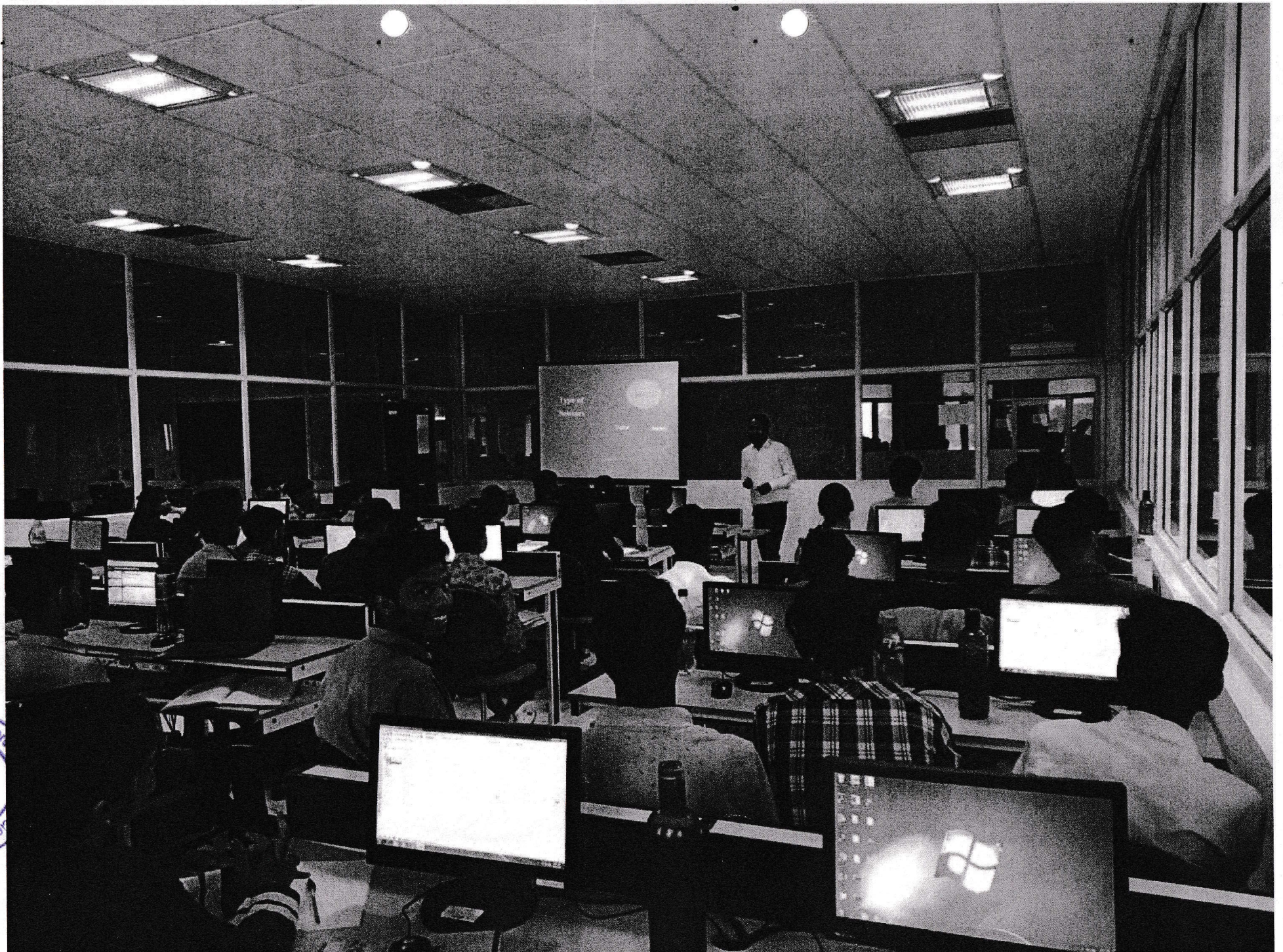
You're very inspirational and give the team excellent motivation to achieve our goals

Very Satisfied.

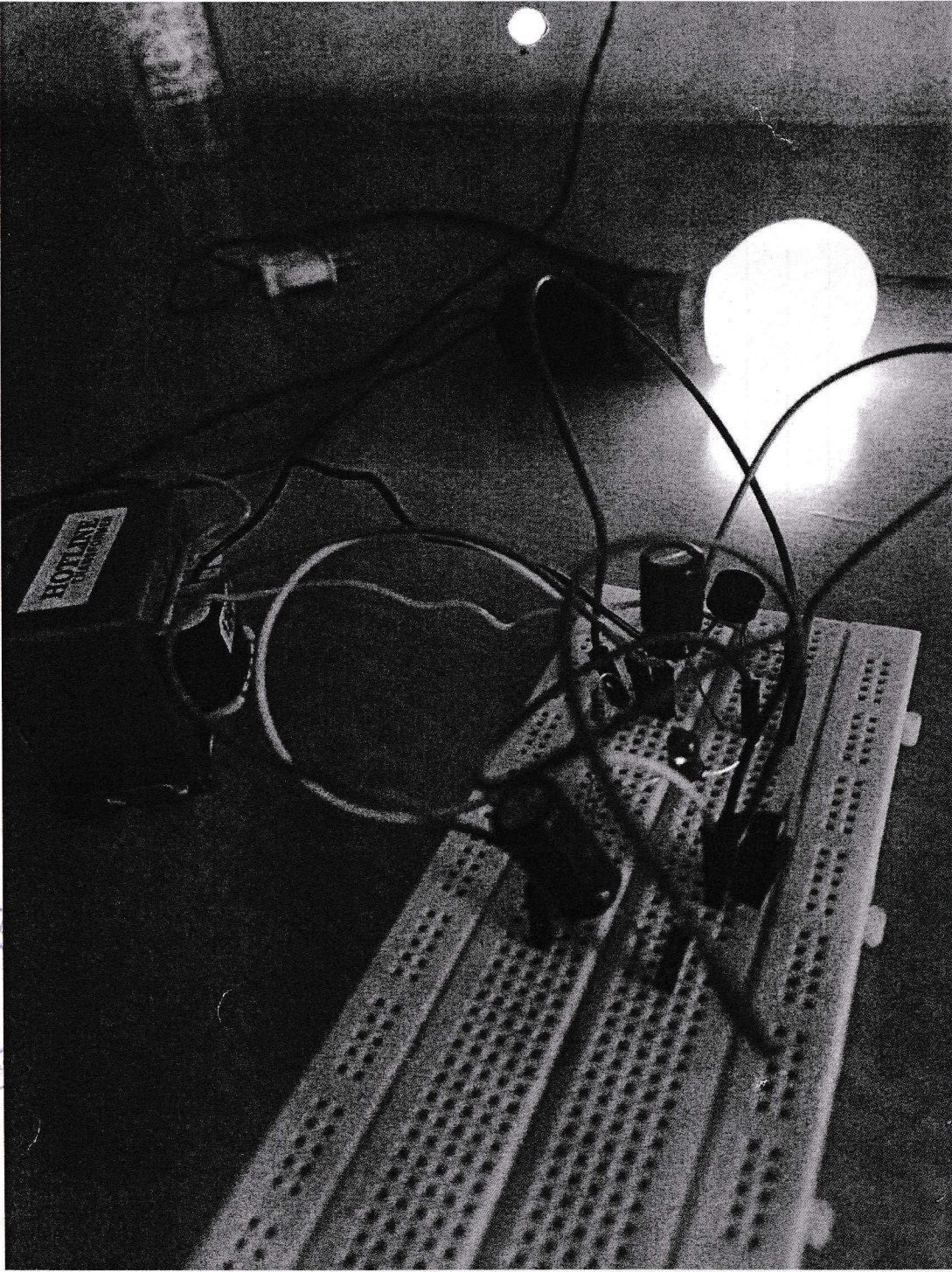
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## Google Forms



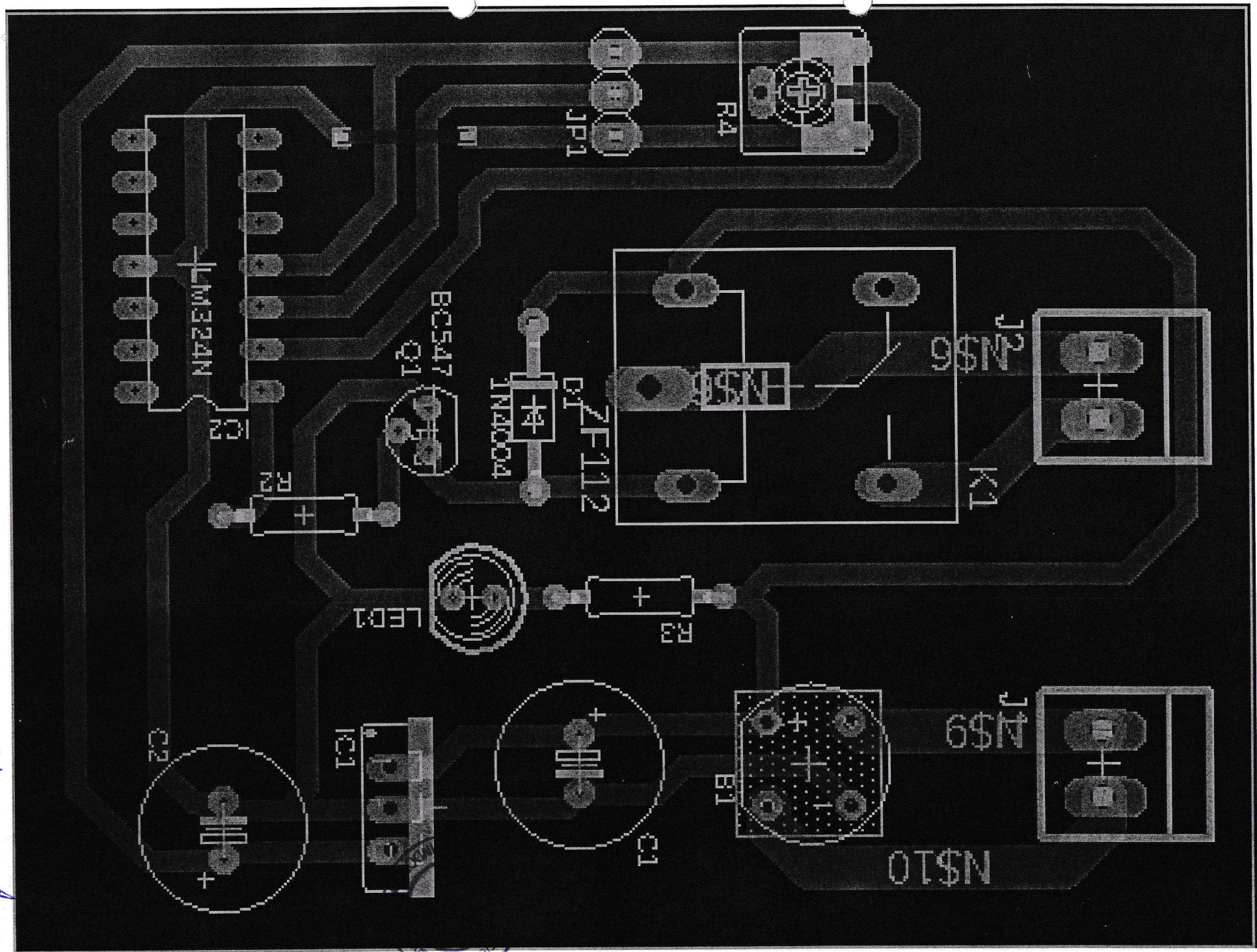


Handwritten signature or mark.



4/1

Pin 1

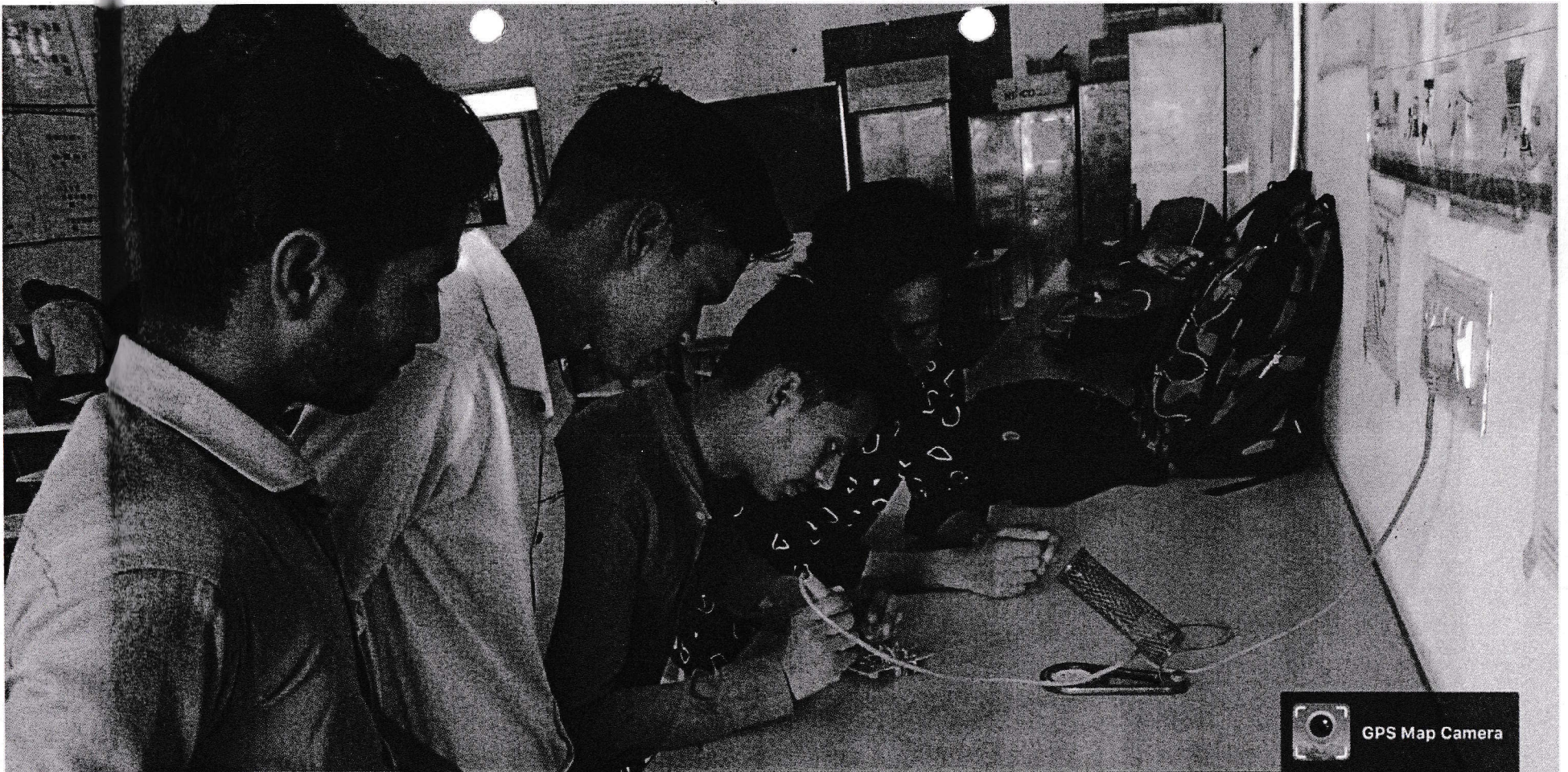




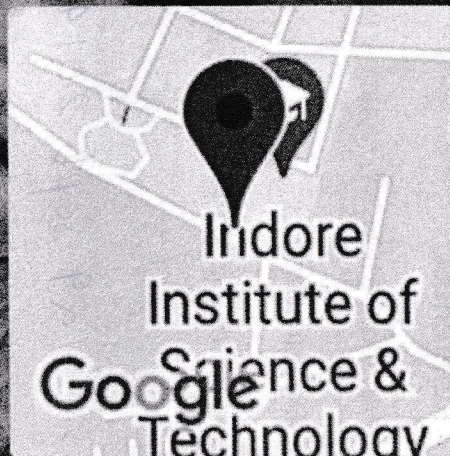
Pran

46

Science & Tech



GPS Map Camera



Indore, Madhya Pradesh, India

JQHJ+M8F, Indore, Madhya Pradesh 453332, India

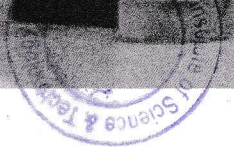
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Long 75.780869°

23/05/22 10:32 AM



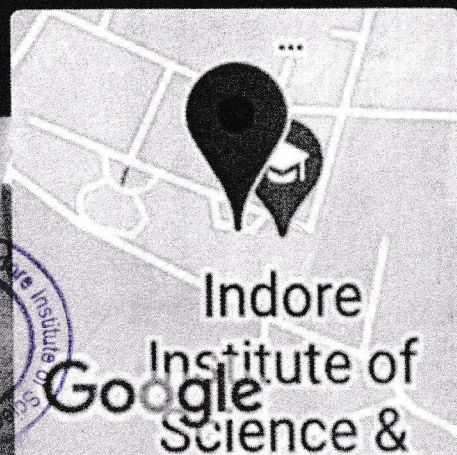
Prave  
df



Pranav  
R



GPS Map Camera



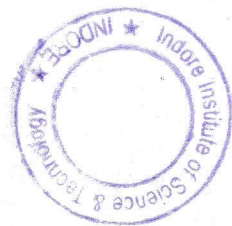
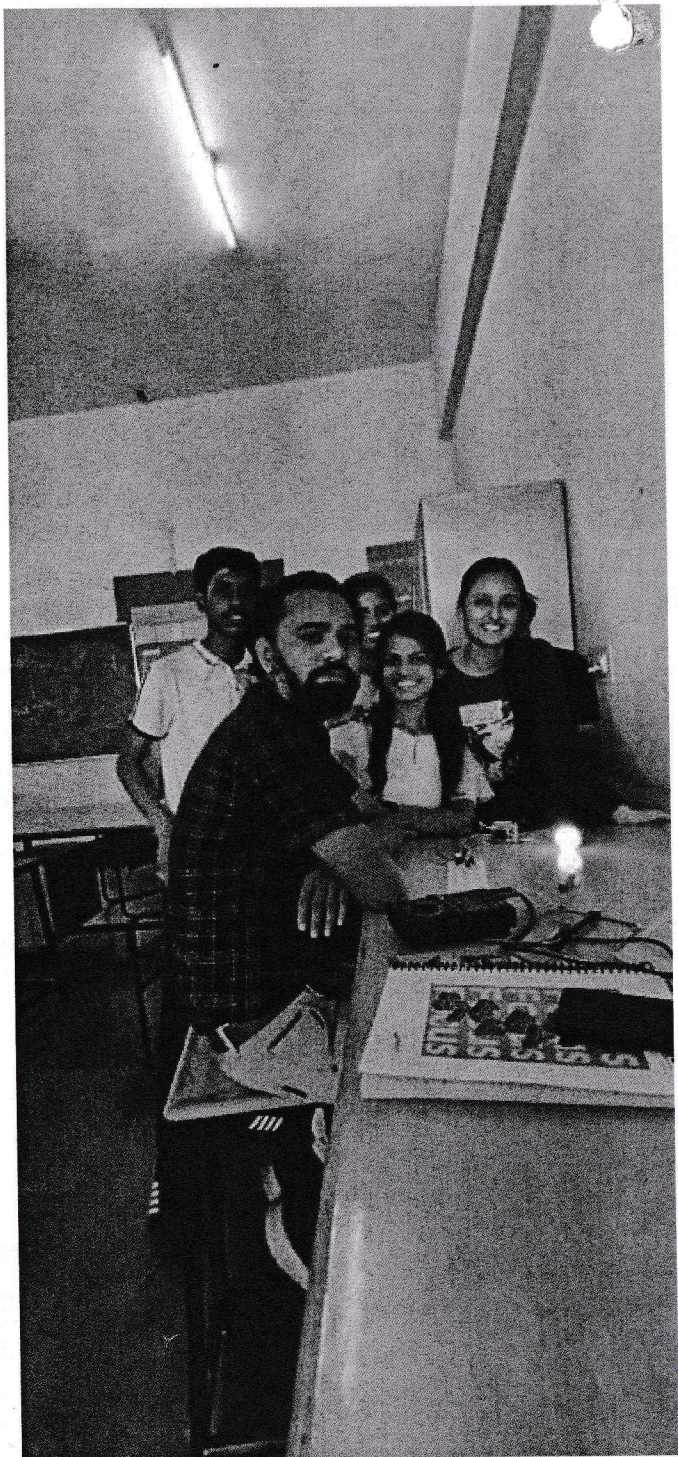
Indore, Madhya Pradesh, India

JQHJ+M8F, Indore, Madhya Pradesh 453332, India

Lat 22.629365°

Long 75.780911°

23/05/22 10:38 AM



P. P. P.

98

DATE: 24/05/2022

## Report

Department of Electronics and Communication Engineering Successfully completed Internship cum Training on Art and Science of PCB Design and Development from 17<sup>th</sup> may to 24<sup>th</sup> may 2022 and 65 students successfully completed the Internship cum Training program.

### Learning Outcomes

- Participants able to express their creativity using PCB design technology.
- Participants learned about project work software.
- Participants will be able to troubleshoot and analysis the PCB layout rules.
- Participants are able sound technically fine.
- Participants are able understand Gerber file and export Gerber file for production.
- Participants able to design single & double sided PCB designs.
- Participants able to deal with project on PCB design tools.

**Coordinator**