

2.3.1 - Student centric methods, such as experiential learning, participative learning and problem-solving methodologies are used for enhancing learning experiences.

Table of Contents

Introduction.....	3
Experiential Learning	4
a. Project / Models	4
b. Laboratory Courses	5
c. Simulation Lab.....	6
d. Certificate Courses	7
e. Sample Industrial visits	9
f. Internships	10
g. Sample Field work/ Field survey	12
h. Workshops.....	12
i. MOOC / NPTEL / Skill-Racks	14
Participative Learning.....	16
a. Group Discussions	16
b. Mock Interviews	16
c. Technical Presentation (PPT)	17
d. Video Demonstration	18
e. Student chapter / Society / Clubs.....	18
f. Expert Lecture / Seminar.....	19
Problem Solving Methodologies	20
a. Quiz.....	20
b. Participating in various competition	22
Smart India Hackathon 2022, QR Coder team Winner of SIH 2022.....	22
Smart India Hackathon 2022, Devfolks team Winner of SIH 2022.....	23
c. Publishing technical papers	23
Students' Centric methods through use of ICT tools by the faculty.....	24
Teaching Using Physical Models and ICT Tools as Participative Learning.....	25

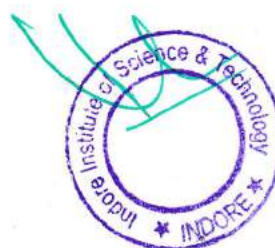




INDORE INSTITUTE OF SCIENCE & TECHNOLOGY, INDORE

Approved by AICTE, New Delhi, Affiliated to RGPV, Bhopal, Recognized by UGC under Section 2(f)

Teaching Using Demonstration of Kit and ICT Tools as Participative Learning.....	25
Conducted Workshops using ICT Tools as Participative Learning.....	26
Peer Learning Through Project Presentation using ICT Tools as Participative Learning	26
Peer Learning Through Technical Presentation using ICT Tools as Participative Learning	27
Conducted Internship using ICT tools as Experiential Learning.....	27
Conducted Certificate Course / Value added Courses using ICT Tools as Experiential learning.	28
ICT Teaching using animation videos as Participative Learning.....	28
Conducted Quiz using ICT tools.	29
Video Recording of Project work done by the students as problem solving.....	29
Various proof of Students Centric Learning	31
Training at IIST	31
Other Academic Events at IIST.....	31



Introduction

Teaching and Learning at IIST

IIST has transformed traditional teaching methods into innovative and creative approaches to enhance the learning experience for both students and faculty. Through a range of initiatives, IIST fosters an environment where students actively engage in the learning process and develop their skills and knowledge.

Experiential Learning

Students gain hands-on experience through various practical activities, including projects, laboratory sessions, industrial visits, internships, and field work. Value-added courses and certificate courses provide exposure to the latest technologies and industry trends. Virtual labs offer remote access to simulations and experiments. Additionally, students can enroll in online MOOCs and certifications to supplement their learning.

Participative Learning

IIST encourages active participation through group discussions, mock interviews, technical presentations, and video demonstrations. Student clubs and societies provide opportunities for peer mentorship and personal development. Expert lectures, seminars, and skill enhancement programs further enrich the learning experience.

Problem-Solving Methodologies

Students develop problem-solving skills through quizzes, Special Interest Group (SIG) activities, competitions, sponsored projects, and technical paper publications. This approach promotes critical thinking and innovative problem-solving techniques.



Experiential Learning

a. Project / Models

Department of Electronics and Communication
Minor Project Submission

S.no	Group number	Student Name	Enrollment Number	Contact Number	Title of Project
1	Group-1	Ayush Malviya	0818EC201017	9039408277	Smart car parking system
2		Sonu Suryavanshi	0818EC213D06	6265343889	
3		Sachin Kochle	0818EC213D03	7470525588	
4		Gautam Dahale	0818EC201022	7974168176	
5	Group-2	Yogita Patel	0818EC201059	8815481300	Health Monitoring system using ESP32 and Thinkspeak
6		Renika Satish Soctakke	0818EC213D05	9356375859	
7		Sinran Rajput	0818EC201048	9148844309	
8		Naina Varma	0818EC201028	6261945709	
9	Group-3	Jay Pandey	0818EC201028	6261945709	GSM-Based home automation system
10		Vishal Kaushtal	0818EC201057	9752126025	
11		Arat Tiwari	0818EC201009	8450896042	
12		Divyanshu Bhati	0818EC201021	7828736064	
13	Group-4	Aman Kumar	0818EC201007	7974061550	Obstacle avoiding robot
14		Yash Raghuvanshi	0818EC201058	8815794778	
15		Prakhar Solanki	0818EC201038	9977585934	
16		Armit Soni	0818EC201008	9109321992	
17	Group-5	Ayush Soni	0818EC201018	8889760881	IOT based Smart Traffic light system
18		Atharv Vyas	0818EC201016	7611111730	
19		Aman Bhardwaj	0818EC201006	9625203162	
20		Dipanshu Patidar	0818EC201019	6262719679	
21	Group-6	Siddharth Rathore	0818EC201047	7879267590	LPG gas leakage detection and alert system
22		Abhishek Patidar	0818EC201014	7999187423	
23		Anjali Patil	0818EC201012	7803814893	
24		Tanisha Singhai	0818EC201051	9555898936	
25	Group-7	Rahul thakur	0818EC201040	7771872244	Smart Irrigation system
26		Shabina Khan	0818EC201044	7770944454	
27		Anapam aleriya	0818EC201013	8269533437	
28		Dipesh waghe	0818EC201020	7067434682	
29	Group-8	Priya Sharma	0818EC201039	9644442190	Wireless hand gesture control robot
30		Ashish raghuwanshi	0818EC201015	7389425311	
31		Nikunj giri goswami	0818EC201036	8349085171	
32		Kundeep solanki	0818EC201030	9754436046	
33	Group-9	SinghBais	0818EC201045	9369282254	Biometric attendance system
34		Ashutosh Sharma	0818EC201002	7999124584	
35		Abhay Netawat	0818EC201003	738993705	
36		Gitesh Ahirwar	0818EC201024	8305356359	
37	Group-10	Gautam panwar	0818EC201023	9589596014	Fire fighting robot
38		Neeraj patil	0818EC201034	9589554284	
39		Goutam shivde	0818EC201025		
40		Somesh sharma	0818EC201049	9752158344	
41	Group-11	Ritika diwekar	0818EC201042	7772896157	Autonomous robotic arm
42		Rashika diwekar	0818EC201041	7771864557	
43		Shreya kumari	0818EC213D04	828354836	
44		Suraj bhadoriya	0818EC201050	7879048826	
45	Group-12	Nandini Soni	0818EC201033	9827592211	Finger print based doorlock system
46		Vaidik Soni	0818EC201054	8518080801	
47		Nikita Tomar	0818EC201035	7470387888	
48		Khushboo Malviya	0818EC201029	6264384761	
49	Group-13	Tanmay Soni	0818EC201052	7747053415	Attendance system based on Arduino and google spreadsheet (using RFID reader)
50		Anand Verma	0818EC201011	9229985255	
51		Vaibhav Songara	0818EC201853		

Prof. Prabhath Pandey
Assistant Professor E.C.E Department

(Signature)
Prof. Ankit Jain
H.D. SEC

Sample list of projects along with title and guide

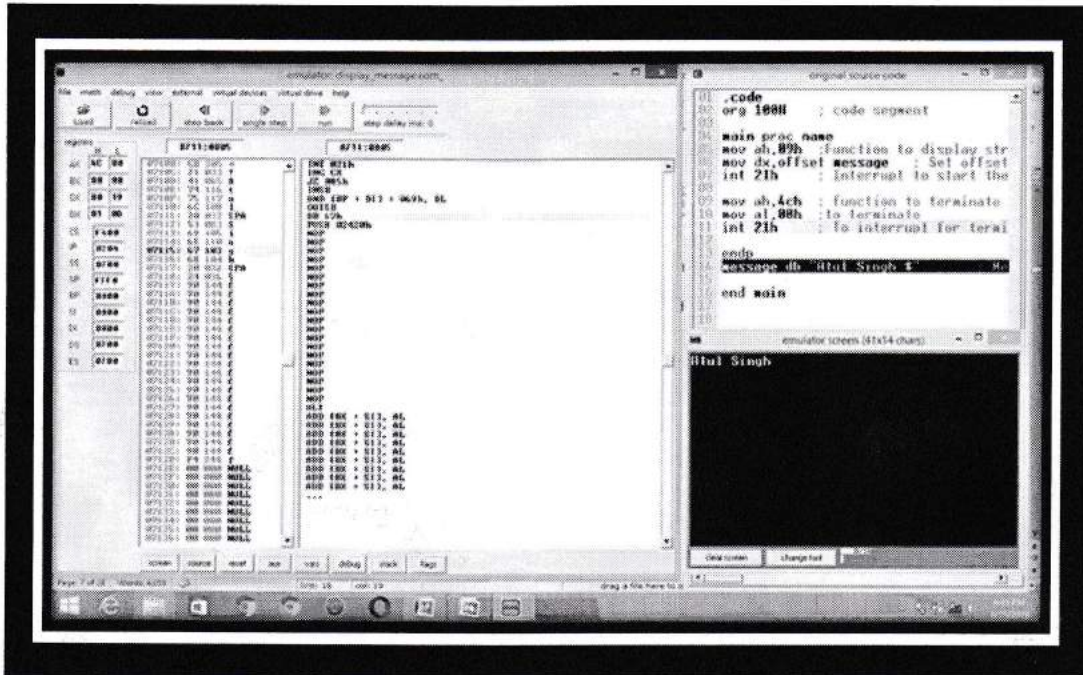


b. Laboratory Courses

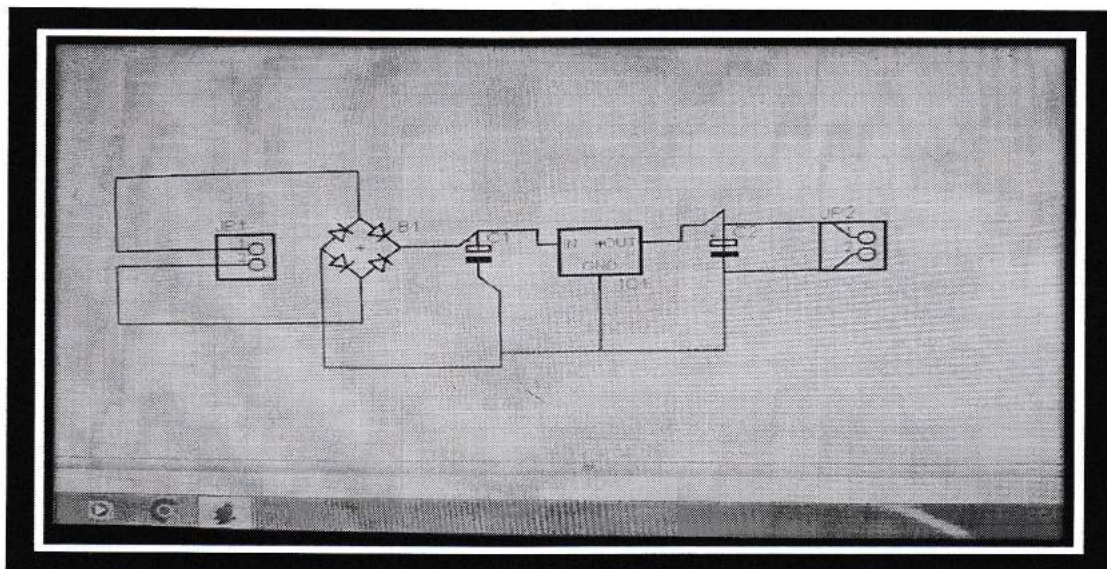
UG - CE	B. Tech (Civil Engineering)	BT201	Engineering Physics
		BT203	Basic Mechanical
		BT204	Basic Civil Engineering & Mechanics
		BT205	Basic Computer
		BT206	Language Lab & Seminars
		BT107	Internship-I (60 Hrs Duration) at the Institute level
		BT101	Engineering Chemistry
		BT103	English for Communication
		BT104	Basic Electrical & Electronics Engineering
		BT105	Engineering Graphics
		BT106	Manufacturing Practices
		CE302	Construction Material
		CE303	Surveying
		CE304	Building Planning & Architecture
		CE305	Strength of Materials
		CE306	Study of Historical & Ancient Civil Engineering Practices
		CE402	Construction Technology
		CE403	Structural Analysis-I
		CE404	Transportation Engineering-I
		CE405	Engineering Geology & Remote Sensing
		CE406	Software Lab
		CE501	Fluid Mechanics I
		CE502	Transportation Engg II
		CE505	Quantity surveying & Costing
		CE506	Material Testing Lab
		CE601	Structural Design and Drawing (RCC-I)
		CE602	Environmental Engineering, I
		CE605	Advance surveying lab
		CE606	Non-Destructive Testing Lab
		CE701	Geotechnical Engg
		CE704	Prestressed Concrete Structures Lab
		CE705	I.O.T. Lab
		CE801	Design of Steel Structures
CE804	Earthquake Resistant Structures Lab		



c. Simulation Lab



Microprocessor & Microcontroller Lab

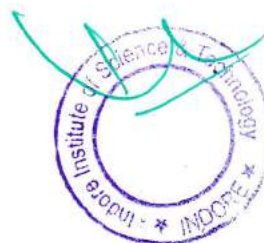


Simulation Lab



d. Certificate Courses

S. No.	Date	Total hours	Workshops / Training	Association	Resource person with contact detail
1	18-07-2022 to 25-07-2022	35	Addon Course on Application and Virtualization of Data Structure	Programming World Pvt. Ltd.	Mr.Pankaj Wadhvani, Programming World Pvt. Ltd.
2	25-07-2022 to 04-08-2022	40	Addon Course on Blockchain and its Applications	-	Mr.Umesh Sahu
3	24-08-2022 to 06-09-2022	40	Value added Training on Solid Works	Indo German Tool Room, Indore	Mr. Prakhar Joshi, IGTR, Indore
4	12-10-2022 to 09-11-2022	45	Addon Course on Advance Java, Module - 1	Programming World Pvt. Ltd.	Mr.Pankaj Wadhvani, Programming World Pvt. Ltd.
5	21-11-2022 to 26-11-2022	40	Value added Training on CREO	Indo German Tool Room, Indore	Mr. Prakhar Joshi, IGTR, Indore
6	12-12-2022 to 23-12-2022	40	Addon Course on Data Analytics in R	IIMR, Indore	Dr.Reshu Agrawal, IIMR, Indore
7	16-12-2022 to 22-12-2022	42	Addon Course on AI Based Product Development (Basis)	Codenscious Technologies Pvt. Ltd.	Mr. Shivang Trivedi, Codenscious Technologies Pvt. Ltd.,
8	02-01-2023 to 10-01-2023	45	Addon Course on AI Based Product Development (Advance)	Codenscious Technologies Pvt. Ltd.	Mr. Shivang Trivedi, Codenscious Technologies Pvt. Ltd.,
9	02-01-2023 to 10-01-2023	35	Addon Course on SQL using Data Science	Turning Point	Mr.Ankush Saklecha, Turning point



10	02-01-2023 to 12-01-2023	30	Certificate Course on Applications of data science for chemical engineer through SPSS	-	Ms Palak Shah
11	03-02-2023 to 11-02-2023	45	Certificate Course on Prestressed Concrete Structures	-	Ms. Poonam Bagora
12	20-02-2023 to 28-03-2023	45	Addon Course on Advance Java, Module -2	Programing World Pvt. Ltd.	Mr.Pankaj Wadhvani, Programing World Pvt. Ltd.
13	13-03-2023 to 17-03-2023	30	Certification Course on Drone Development	Om Drone Developer Pvt. Ltd.	Mr Abhay Singh Lodhi, Om Drone Developer Pvt. Ltd.
14	15-05-2023 to 19-05-2023	30	Certification Course on Advance Solid Works	Indo German Tool Room, Indore	Mr. Prakhar Joshi, IGTR, Indore
15	15-05-2023 to 23-05-2023	30	Certification Course On "Design and Development of Drone Prototype	ORC Electronics India Private Limited	Mr. Abhinav Singh Thakur, ORC Electronics India Private Limited

CERTIFICATE



Certificate Course on Solid Works

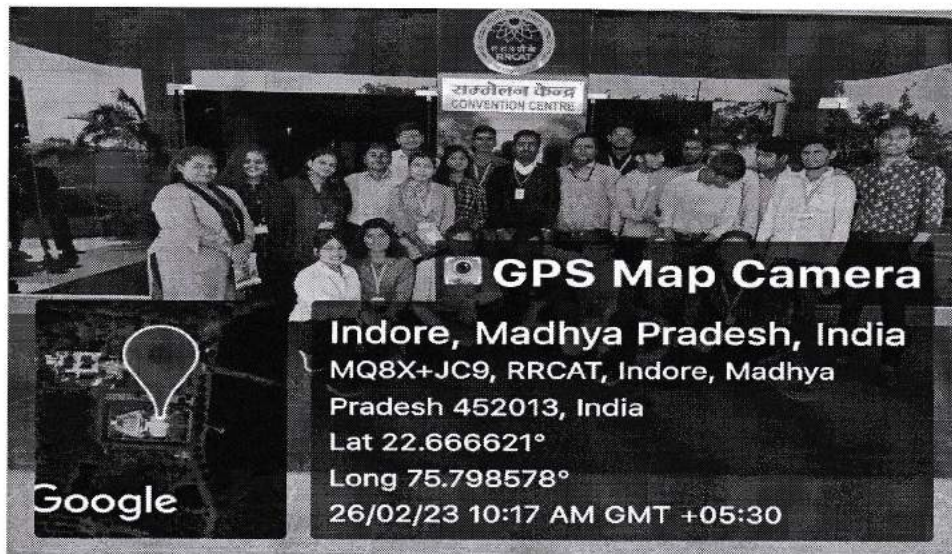


Application of Data Science for Chemical Engineering



e. Sample Industrial visits

S. No.	Date	Industry Name	Participation / Total Enrolled	Class / Year
1	20-10-2022	Technical Visit to Sewage Treatment Plant Kabit khedi	50	CE II, III & IV Year
2	21-02-2023	Technical Visit to Water Treatment Plant Jalud	42	CE II, III & IV Year
3	16-09-2022	Indian Institute of Technology, Indore	52	CM IV Year
4	18-09-2022	Indian Institute of Technology, Indore	34	CM III Year
5	19-09-2022	Indian Institute of Technology, Indore	18	CM II year
6	26-02-2023	Industrial Visit at RRCAT Indore On National Science Day	25	EC I Year
7	28-01-2023	Mahindra & Mahindra	38	ME I and III Year
8	03-11-2022	Sanchi Dugdh Sangh	28	ME III Year
9	12-11-2022	Liugong Pvt. Ltd.	34	ME II and III Year



RRCAT Indore



f. Internships

S. No.	Date	Total hours	Internship	Association	Resource person with contact detail
1	25-07-2022 to 09-08-2022	90	Introduction to logical thinking and smart programming		Ms. Poorva Shukla
2	25-07-2022 to 20-08-2022	90	Internship on web development using HTML, CSS and Java Script		Mr. Yash Parashar
3	27-07-2022 to 17-08-2022	60	Introduction to logical thinking and smart programming	Programming World Pvt. Ltd.	Mr. Pankaj Wadwani
4	25-07-2022 to 16-08-2022	90	Internship on web development using HTML, CSS and Java Script		Mr. Yash Parashar
5	27-07-2022 to 18-08-2022	90	Introduction to logical thinking and smart programming		Mr. Titu Singh
6	22-08-2022 to 29-08-2022	30	Internship on Basics of Rainwater Harvesting	-	Ms. Poonam Bagora
7	25-07-2022 to 01-08-2022	30	Internship on Design of Residential Building by Staad Pro	-	Dr. Niarj Soni/ Mr. Shashank Agrawal
8	02-01-2023 to 13-01-2023	40	Internship on Sustainable Development through Indirect Contouring	-	Ms. Poonam Bagora
9	12-12-2022 to 22-12-2022	40	Internship on Scratch to Execution Phase 1	-	Dr. Niraj Soni
10	02-01-2023 to 07-01-2023	30	Internship on Scratch to Execution Phase 2	-	Mr. Shashank Agrawal
11	17-4-2023 to 23-04-2023	30	Introduction to Process Control and Instrumentation	-	Ms. Farhin Khan



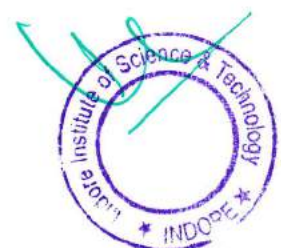
12	22-08-2022 to 27-08-2022	30	Unit Operation and Process Calculations on Real/Industrial Project	-	Dr. Samatha Singh
13	22-08-2022 to 26-08-2022	30	Industrial Analytical Chemical Instrumentation	-	Ms Palak Shah
14	02-01-2023 to 12-01-2023	30	Process Plant Modeling and Simulation using CHEMCAD	-	Ms. Farhin Khan
15	02-01-2023 to 06-01-2023	30	Data Analytics in Adv. Excel	Robotronix India Pvt. Ltd.	Mr. Dilip Sahu, Robotronix India Pvt. Ltd.
16	22-08-2022 to 30-08-2022	30	Internship cum training on The Joy of learning using python	Pi Tech Pvt. Ltd.	Mr. Ravi Yadav, Pi Tech Pvt Ltd.
17	28-07-2022 to 05-08-2022	40	Internship cum certificate course on real time embedded system and IoT Application Module -1	Pi Tech Pvt. Ltd.	Mr. Ravi Yadav, Pi Tech Pvt Ltd.
18	02-01-2023 to 05-01-2023	20	Internship cum Training PCB Design	Pi Tech Pvt. Ltd.	Mr. Ravi Yadav, Pi Tech Pvt Ltd.
19	09-01-2023 to 16-01-2023	30	Internship Cum Training on Real Time Embedded System & IOT Application Module -2	Pi Tech Pvt. Ltd.	Mr. Ravi Yadav, Pi Tech Pvt Ltd.



Internship on Logical Thinking and Smart Programming



Internship on Web Development using HTML, CSS and JAVA Script.



g. Sample Field work/ Field survey



Field Survey by Civil Engineering Students

h. Workshops

S. No.	Date	Workshops / Training	Association	Resource person with contact detail
1	20-06-2022 to 22-07-2022	Workshop on Testing of Building Materials	-	Ms. Shanu Sharma
2	03-09-2022 to 30-11-2022	Workshop on C++	Programming World Pvt. Ltd.	Mr.Pankaj Wadhvani, Programming World Pvt. Ltd.
3	17-11-2022 to 18-11-2022	Workshop on joy of learning robotics and automation	NA	Mr.Prabaht Pandey, Mr.Devendra Mandloi, Mr.Amit Kumar.
4	12-Nov-22	Workshop on Drone for agricultural applications	NA	Mr. Pranav Paranjpe
5	09-11-2022 to 11-11-2022	Workshop on VLSI Design	NA	Dr. Mukesh Patidar
6	04-04-2023	Training Program on Total Station	KTRC Engineering Services	Mr. Anshuman Nimade, KTRC Engineering Services
7	28-03-2023 to 12-04-2023	Competitive coding	Codenscious Technologies Pvt. Ltd.	Mr. Shivang Trivedi, Codenscious Technologies Pvt. Ltd.,
8	02-06-2023	Virtual lab workshop	IIT, Delhi	Mr. Chandan Kumar and Mr Chirag Dey [Sr. Field Engineer, IIT-Delhi]
9	02-01-2023 to 05-01-2023	Training Cum workshop on Project Skill Development	Programming World Pvt. Ltd.	Mr.Pankaj Wadhvani, Programming World Pvt. Ltd.



IIST, IIT join hands to launch virtual lab

HT Correspondent
 a.editor@hindi@hindustannews.com

INDORE: Indore Institute of Science and Technology (IIST) has collaborated with Indian Institute of Technology (Delhi) to organise workshops on virtual laboratories.

IIST, being a nodal centre for virtual labs, is attempting to revolutionise engineering education in the city.

Delhi faculties, including Tanmay Dass, Sanjeev Soni and Vipul Sharma, are a part of the project.

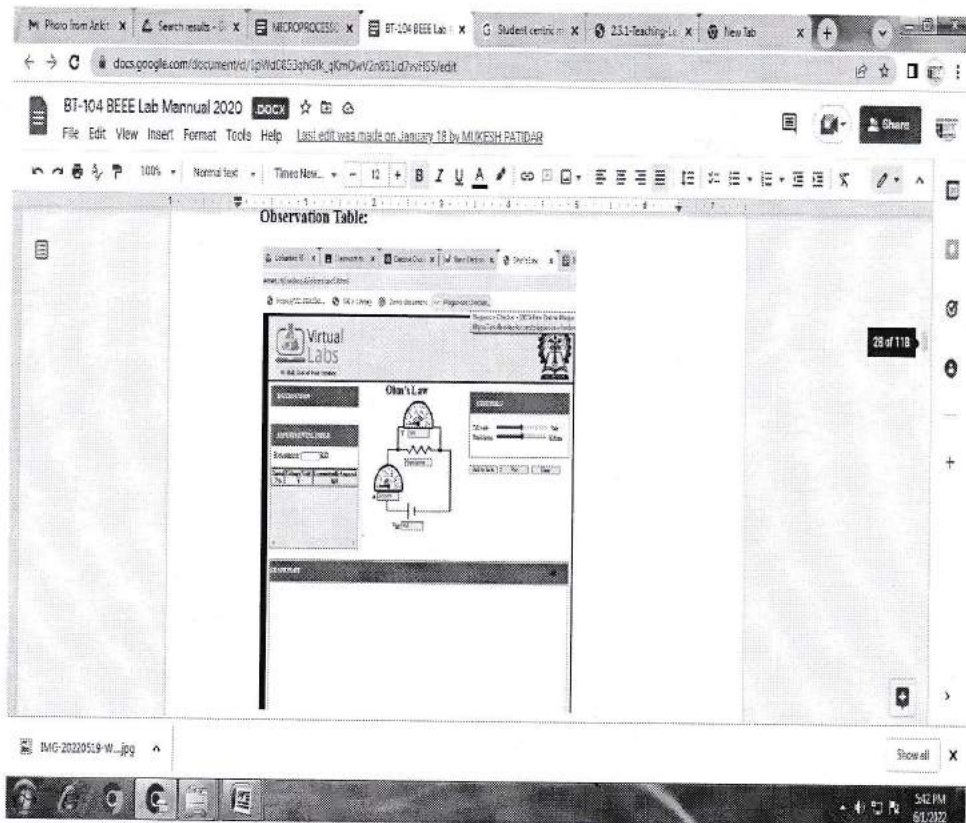
Joy Banerjee, IIST director, said: "The virtual labs will help students, faculties and research scholars in gaining more knowledge without any hindrance or problem. As it's a programme that com-

pletely runs on the internet with a free access to its common website for all participants, it's surely the next big thing in the engineering education in the city."



IIST Virtual Lab in News

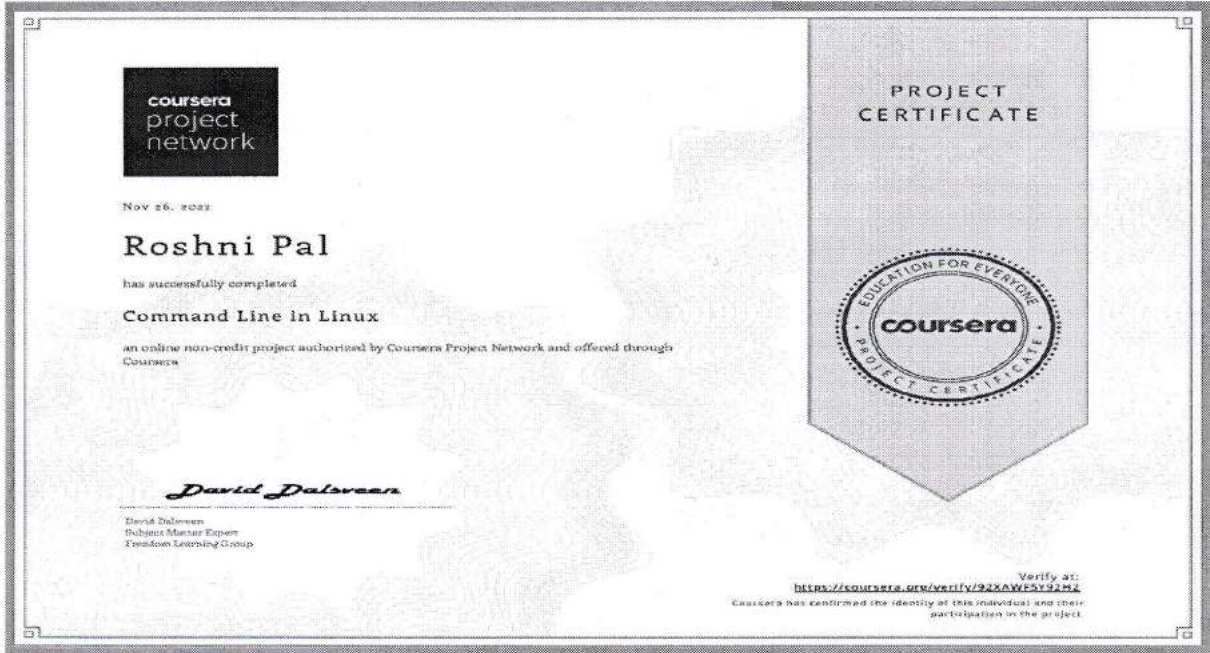
Virtual Lab IIT Delhi



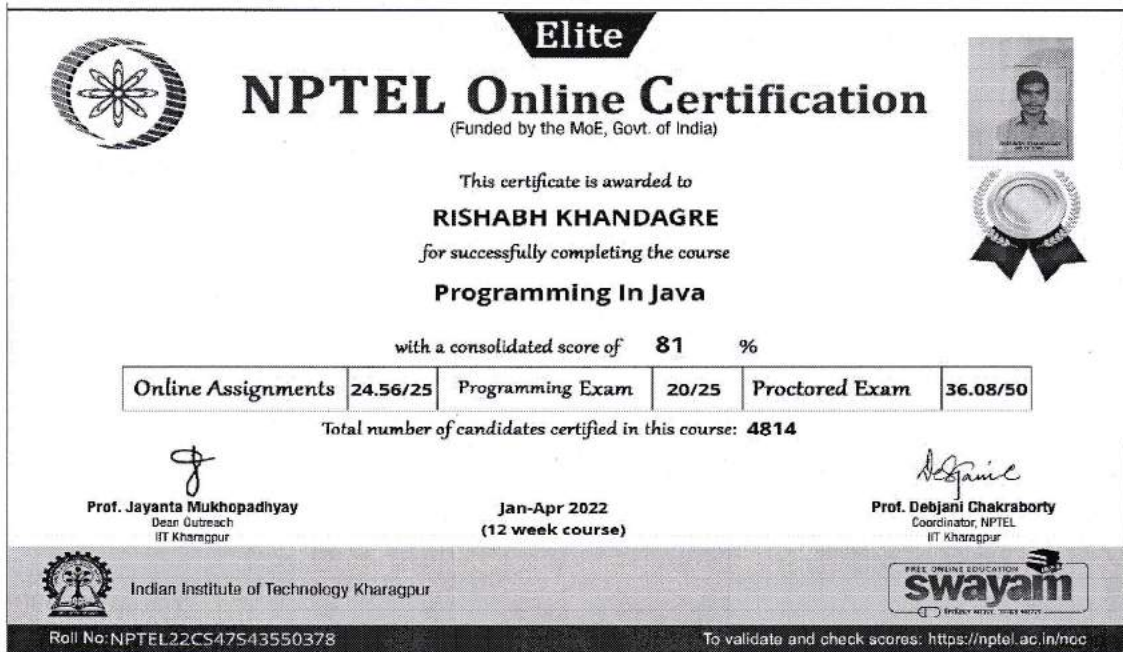
Use of Virtual Lab IIT Delhi in BEEE Lab



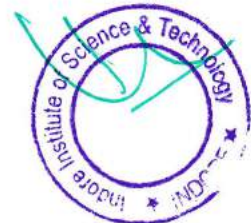
i. MOOC / NPTEL / Skill-Racks



Coursera student sample Certificate



NPTEL student sample Certificate





INDORE INSTITUTE OF SCIENCE & TECHNOLOGY, INDORE
Approved by AICTE, New Delhi, Affiliated to RGPV, Bhopal, Recognized by UGC under Section 2(f)

Verified Certificate

IBM

This is to certify that

Harshita Dewatwal

successfully completed and received a passing grade in

PY0101EN: Python Basics for Data Science

a course of study offered by IBM, an online learning initiative of IBM.

Joseph Santaromangelo
Data Scientist
IBM

edX Verified Certificate Issued May 10, 2023 Valid Certificate ID: 6b4b58dc2390460cac09ae8a37764naa

IIST DEPARTMENT OF COMPUTER SCIENCE

edX student sample Certificate

ID: 6C33497A590D

HackerRank

Certificate

This is to certify that

TANISHKA JAIN

has successfully cleared the assessment for the skill

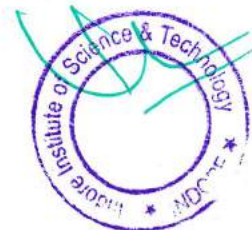
Problem Solving (Basic)

29 Apr, 2023
Date

Harishankaran K
Harishankaran K
CTO, HackerRank

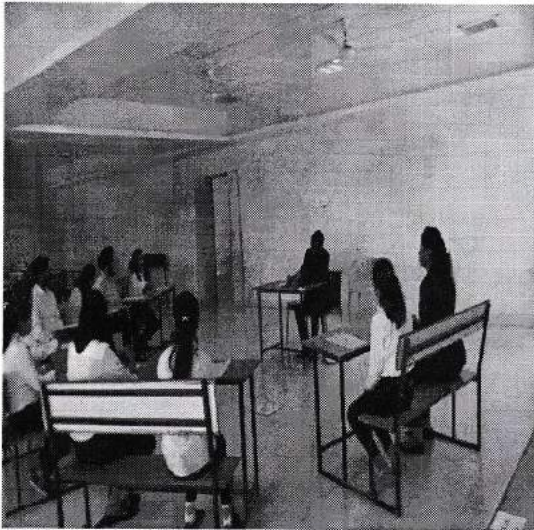
IIST DEPARTMENT OF COMPUTER SCIENCE

Hacker Rank sample Certificate



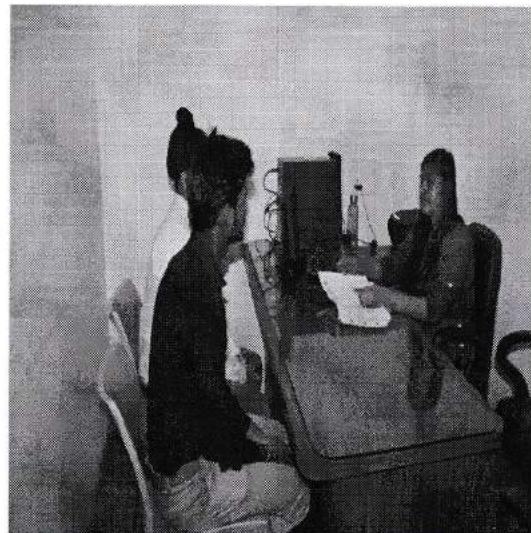
Participative Learning

a. Group Discussions

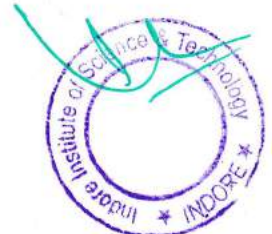


Group Discussions session from CDC

b. Mock Interviews



Mock Interviews session from CDC



c. Technical Presentation (PPT)

RUBRIC FOR PROJECTS RUBRIC#1: FIRST REVIEW (EVALUATION) (100 MARKS)

S.No	Criteria	Excellent (09-10)	Good (07-08)	Average (04-06)	Partially Acceptable (03-04)	Poor (01-02)	Remarks	
1	Attendance (10M)	90-100% attendance in all Project Classes	80-90% attendance in all Project Classes	70-80% attendance in all Project Classes	60-70% attendance in all Project Classes	Below 60% attendance in all Project Classes		
2	Teamwork (10M)	The team worked well together for Literature Survey, Guide Reporting and had excellent Communication during Presentation. Involved well in Problem Formulation and associated objectives	The team worked together most of the time for Literature Survey, Guide Reporting and had Good Communication during Presentation. Involved well in Problem Formulation and associated objectives	The team worked together with many instances of Communication. Literature Survey, Guide Reporting and had little breakdown in Communication during Presentation. Involvement in Problem Formulation and associated objectives	The team worked very poorly but few worked independently well in Literature Survey, Guide Reporting and had weak communication during Presentation. Poor involvement in Problem Formulation and associated objectives	The team worked well together rarely and Unacceptably for Literature Survey, Guide Reporting and had weak communication during Presentation. Poor involvement in Problem Formulation and associated objectives	Below 60% attendance in all Project Classes	
3	Literature Survey (10M)	Literature survey is appropriate and sufficient detail is provided to formulate a project problem and associated objectives	Literature survey is appropriate, but brief detail is provided to formulate a project problem and associated objectives	Literature survey is brief and partial detail is provided to formulate a project problem and associated objectives	Literature survey is incomplete and includes a very less detail is provided to formulate a project problem and associated objectives	No literature survey and detail is provided to formulate a project problem and associated objectives		
4	Guide Reporting (10M)	Attended the classes and discussed the projects with Guide Regularly and report on time	Attended the classes and discussed the projects with Guide Satisfactorily and on time	Attended average of classes and had little interaction with Guide on time	Attended. Acceptable classes and had less interaction with guide on time	Attended. Less class and discussed the projects with Guide Unacceptably		

Theoretical modeling Experimentation (Design) (10M)	The various steps to achieve the objectives of the project are found and clearly explained. The Theoretical Model/Design explained the methodology is explicit	The various steps to achieve the objectives of the project are found and clearly explained. The Theoretical Model/Design explained the methodology is not explicit	The various steps to achieve the objectives of the project are found and not explicitly explained. The Theoretical Model/Design explained the methodology is not explicit	The various steps to achieve the objectives of the project are found and not explicitly explained. The Theoretical Model/Design explained the methodology is not explicit	The various steps to achieve the objectives of the project are found and not explicitly explained. The Theoretical Model/Design explained the methodology is not explicit	
Organization of the project report as per the guidelines (10M)	Organized the project report very well and concerned the guide regularly from time to time	Organized the project report nicely and concerned the guide frequently from time to time	Organized the project report Satisfactorily and concerned the guide less frequently from time to time	Organized the project report Satisfactorily and concerned the guide a few less frequently from time to time	Organized the project report Satisfactorily and concerned the guide a few less frequently from time to time	
Summarize the ultimate findings of the Project (10M)	It includes all of the following: 1. Completion of Literature 2. Rough sketches, calculations, observations etc 3. Rough chapters of project report	It includes most of the following: 1. Completion of Literature 2. Rough sketches, calculations, observations etc 3. Rough chapters of project report	It includes some of the following: 1. Completion of Literature 2. Rough sketches, calculations, observations etc 3. Rough chapters of project report	It includes a very few of the following: 1. Completion of Literature 2. Rough sketches, calculations, observations etc 3. Rough chapters of project report	It includes some of the following: 1. Completion of Literature 2. Rough sketches, calculations, observations etc 3. Rough chapters of project report	

6	Overall Presentation (10M)	Excellent Communication Skill and able to present their associated objective very well	Good Communication Skill and able to present their associated objective satisfactorily	Good Communication Skill and presented their associated objective satisfactorily with minimum breakdown in explanations	Weak Communication Skill and presented their associated objective Unacceptably with frequent breakdown in explanations	Weak Communication Skill and presented their associated objective Unacceptably with frequent breakdown in explanations	
---	----------------------------	--	--	---	--	--	--

RUBRIC#2: FINAL REVIEW/END TERM (100 MARKS)

S.No	Criteria	Excellent (18-19)	Good (17-18)	Average (15-16)	Partially Acceptable (13-14)	Poor (10-12)	Remarks
1	Innovation in the project (10M)	Excellent and challenging project with new ideas that could be beneficial for Global Innovation	Good and Challenging Project with ideas that are already given but with a new twist for Global Innovation	Average projects with less challenges and could be beneficial for global and individual growth	Satisfactory projects that are partially acceptable but would improve the individual growth	Less Satisfactory projects that are partially acceptable but would improve the individual growth	
2	Literature Survey (10M)	Literature survey is appropriate and sufficient detail is provided to formulate a project problem and associated objectives	Literature survey is appropriate, but brief detail is provided to formulate a project problem and associated objectives	Literature survey is brief and partial detail is provided to formulate a project problem and associated objectives	Literature survey is not appropriate and includes a very less detail is provided to formulate a project problem and associated objectives	No literature survey and detail is provided to formulate a project problem and associated objectives	
3	Problem Formulation (10M)	Problem Formulation is appropriate and well defined based on literature survey and Project study	Problem Formulation is less appropriate but well defined based on literature survey and Project study	Problem Formulation is not clearly defined based on literature survey and Project study	Problem Formulation is not appropriate and not clearly defined based on literature survey and Project study	No Problem Formulation is neither provided nor defined based on literature survey and Project study	

7	Software Implementation (10M)	Excellent performance in Designing/Building Software Module and able to explain it efficiently	Good performance in Designing/Building the Software Module and able to explain satisfactorily	Average performance in Designing/Building the Software Module and able to explain with minimum breakdown	Independent Role of Individuals in Designing/Building the Software Module and able to explain with minimum breakdown	Unacceptably role in Designing/Building the Software Module and unable to explain properly	
8	Question and Answer (10M)	Able to explore the Project Work well and able to answer efficiently to all the Questions	Able to explore the Project Work well and able to answer Satisfactorily to almost all the Questions	Able to explore the Project Work well and able to answer almost all the Questions	Able to explore the Project Work Satisfactorily and able to answer few Questions	Able to explore the Project Work Unacceptably and unable to answer efficiently to most of the Questions	
9	Hardware (10M)	Excellent performance in Designing/Building Hardware Module and able to explain it efficiently	Good performance in Designing/Building the Hardware Module and able to explain satisfactorily	Average performance in Designing/Building the Hardware Module and able to explain with minimum breakdown	Independent Role of Individuals in Designing/Building the Hardware Module and able to explain with minimum breakdown	Unacceptably role in Designing/Building the Hardware Module and unable to explain properly	
10	Presentation skills (10M)	Excellent Communication Skill and able to present their associated objective very well	Good Communication Skill and able to present their associated objective satisfactorily	Good Communication Skill and presented their associated objective satisfactorily with minimum breakdown in explanations	Weak Communication Skill and presented their associated objective Unacceptably with minimum breakdown in explanations	Weak Communication Skill and presented their associated objective Unacceptably with frequent breakdown in explanations	

Rubrics for Technical Presentation



Presentation by Students as sample



d. Video Demonstration



Atul Singh Kushwah <atulsingh.kushwah@indoreinstitute.com>

Fwd: Smart India Hackathon 2019 - Hardware Edition: Video Submissions

Durgesh Vyas <durgeshvyas2017@gmail.com>
To: atulsingh.kushwah@indoreinstitute.com

Fri, May 24, 2019 at 10:16 AM

----- Forwarded message -----

From: Smart India Hackathon <sih@aiicte-india.org>
Date: Mon 22 Apr, 2019, 4:44 PM
Subject: Smart India Hackathon 2019 - Hardware Edition: Video Submissions
To:

Dear Team Leader,

Hope you are doing well and your prototypes are progressing at good speed. Just a quick note to let you know, to participate in Stage 2 of Hardware hackathon, you are required to confirm participation on <https://sih.gov.in> at the soonest.

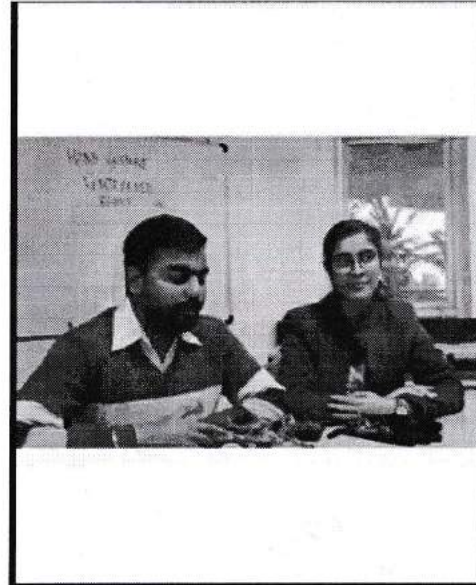
Please find below the process for submitting video links for Stage Two of SIH 2019 - Hardware Edition:

1. DOWNLOAD FILES:

- Please login to <https://sih.gov.in> with your Username and Password.
- Download all files from your profile:
 - x SIH 2019 Logo
 - x Invention Disclosure
 - x Supporting Document

2. VIDEO FORMAT:

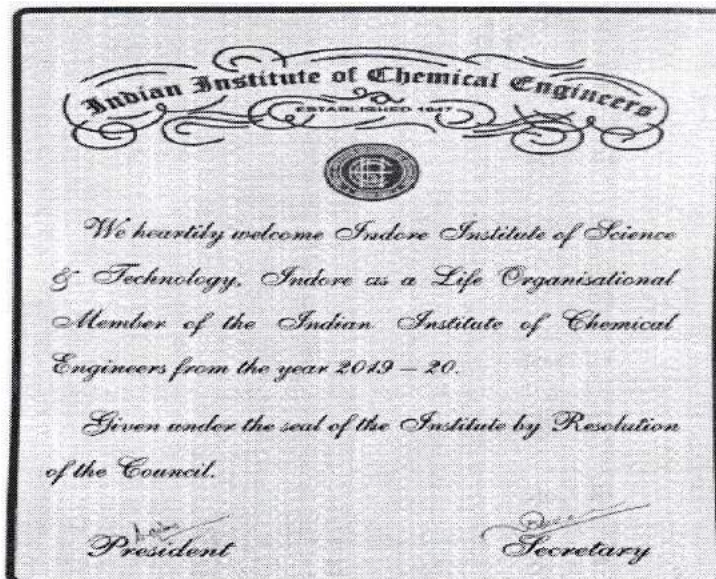
- The video should be 2-4 minutes long and must be submitted by 27th May, 2019.
- Please ensure your video carries the following text at the bottom
Confidential. For Limited Circulation. Smart India Hackathon 2019 - Hardware Edition
- Please include the SIH 2019 logo on the top right corner along with your Team Name.
- The last slide on the video should include the following information:
 - x Team Name



SIH Video Demonstration

Project Video Demonstration

e. Student chapter / Society / Clubs

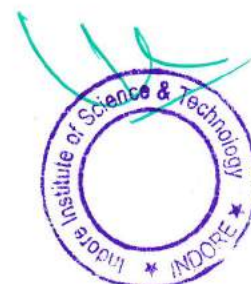


IICHE Chapter Member Certificate



f. Expert Lecture / Seminar

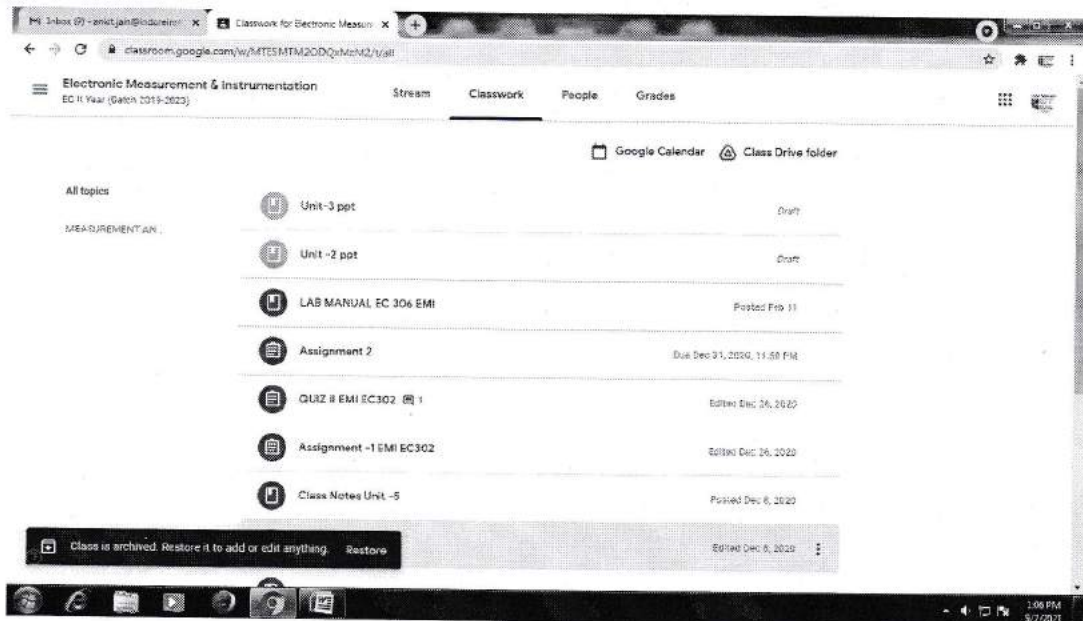
S. No.	Date	Title	Resource person with contact detail
1	15-09-2022	How to become a Successful AI Engineer	Mr. Shivang Trivedi, Codenscious Technologies Pvt. Ltd.,
2	02-09-2022	GDSC-IIST Club	Ms.Sarika Purohit, Google DSC IIST Lead'22
3	17-11-2022 and 18-11-2022	Induction Session for all Tech Committees	Ms.Sarika Purohit, Google DSC IIST Lead'22
4	21-02-2023	Sneak peek into real world software engineering	Mr.Kaivalya Apte, Staff Software Engineer at HubSpot, Berlin, Germany Podcaster)YouTuber
5	28-11-2022	Expert Lectrue on trends in on device artificial intelligence	Dr. ashutosh Mishra, Brain Pool Fellow, SIT, Yonsei University, South Korea.
6	18-10-2022	Expert Lecture on Skill up yourself with Microsoft.	Mr Rahul Bhargawa, Founder & Director RDot Ventures
7	19-10-2022	Expert Lecture on Power of Technology and science	Mr. Joydeep Bhaduri, Managing Director Accenture
8	15-12-2022	Professional Ethics and Human values	Shri Arun S Bhatanagar, Group Advisor, SWES
9	30-09-2022	Expert lecture on Recent Threats in cyber space	Mr.Pranay Chauhan, Cyber Security Expert
10	03-03-2023	How to start a startup	Mr.Aditya SG Vyas, CEO, Drishti Foundation, IIT, Indore
11	17-11-2022	Expert Lecture on Human Values	Dr. Amit Jain, IIST, Indore
12	16-11-2022	Expert Lecture on Professional Ethics	Dr. Niraj Soni, Smart City Expert
13	16-11-2022	Expert Lecture on Professional Ethics and Human Values	Dr. Samatha Singh & Dr Neena Thakkar



14	05-12-2022	Expert Lecture on Role of Simulation Software in Process Industries	Mr. Ajay Satpute, MD, CEPL Mumbai
15	17-10-2022	Expert Lecture on importance of Human Values and professional ethics in One's life.	Dr. R. K. Khandel, (President R& D and Business Development of INDIAN GLYCOLS LIMITED, NAGPUR)
16	18-05-2023	Workshop on Intellectual Property Rights	Dr.V.K.Sukhwani, Professor, GECU, Ujjain
17	03-05-2023	Seminar on Basics of Patent Filling Process	Mr. Rajesh Soni, Advocate, IP Attorneys Founder and Managing Partner
18	28-03-2023	Awareness Program on Basic knowledge About IPR	Mr. Harsh Dubey, Patent Officer Mumbai

Problem Solving Methodologies

a. Quiz

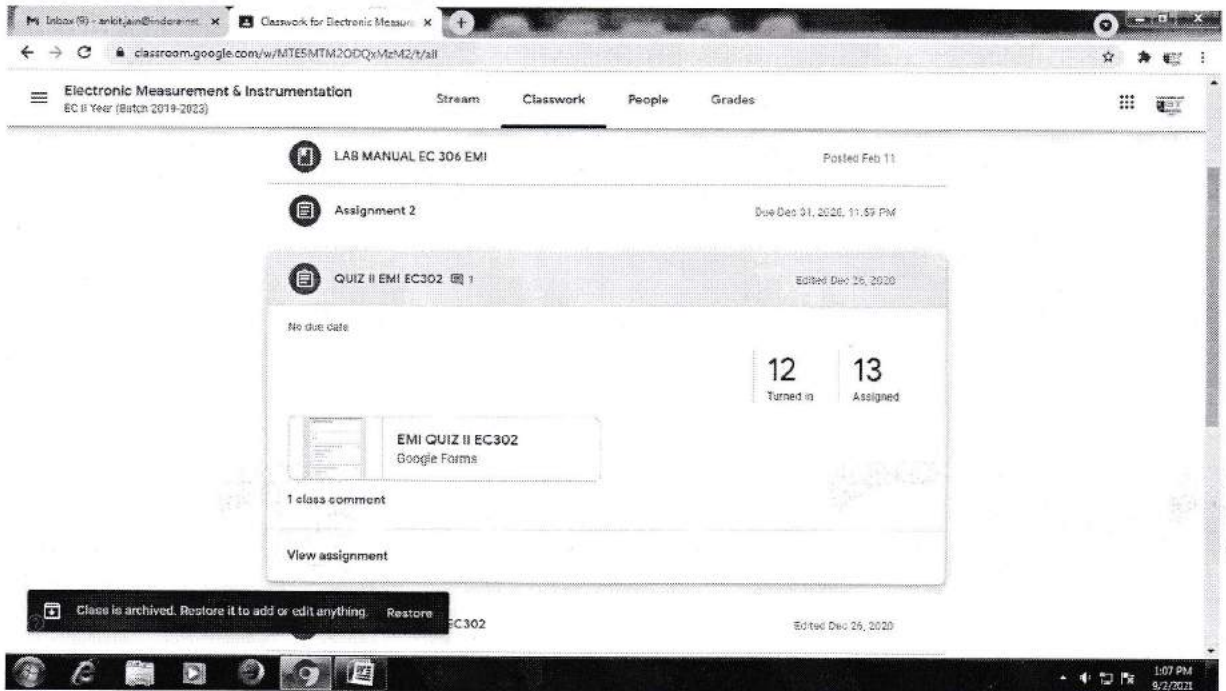


The screenshot shows a Google Classroom page for the course 'Electronic Measurement & Instrumentation'. The 'Classwork' tab is active, displaying a list of items:

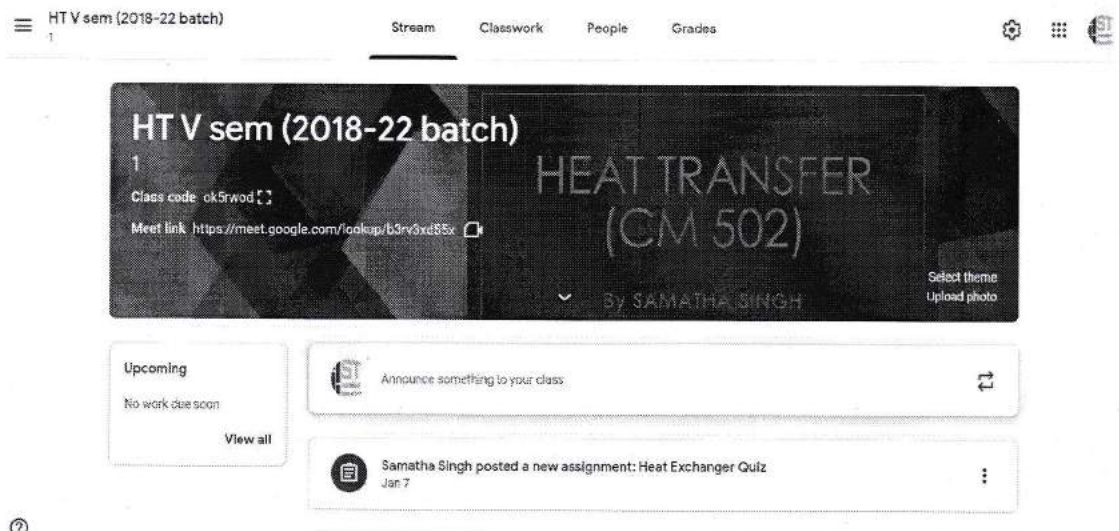
- Unit-3 ppt (Draft)
- Unit-2 ppt (Draft)
- LAB MANUAL EC 306 EMI (Posted Fri 11)
- Assignment 2 (Due Dec 31, 2020, 11:58 PM)
- QUIZ # EMI EC302 (Edited Dec 26, 2020) - This item is highlighted.
- Assignment -1 EMI EC302 (Edited Dec 26, 2020)
- Class Notes Unit -5 (Posted Dec 8, 2020)

EMI Subject Google Classroom –Assign the Quiz



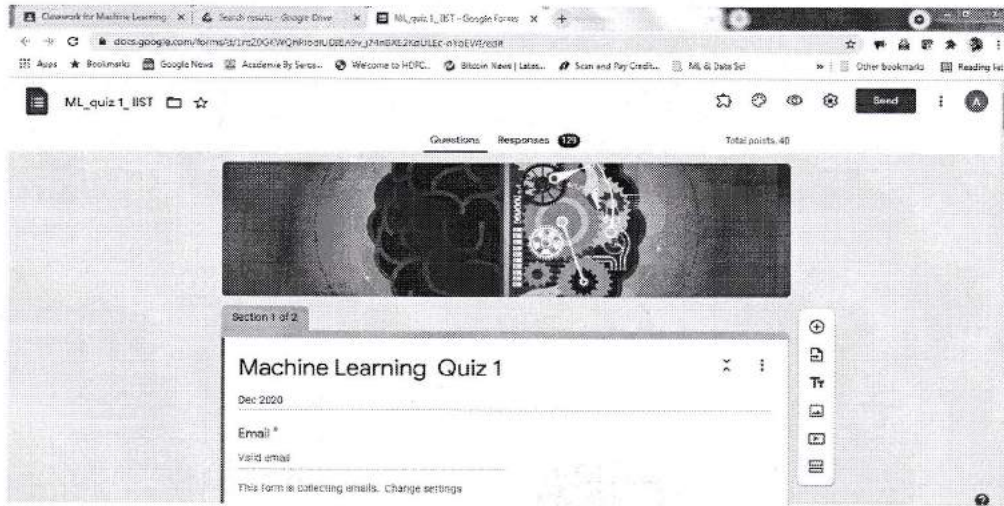


EMI Subject Google Classroom –Sample Quiz Status



Heat Transfer Subject Google Classroom –Sample Quiz announcement





Machine Learning Subject Google Classroom –Sample Quiz Paper

b. Participating in various competition



Smart India Hackathon 2022, QR Coder team Winner of SIH 2022





Smart India Hackathon 2022, Devfolks team Winner of SIH 2022

c. Publishing technical papers



Sample Publication copy of students from chemical engineering department



Students' Centric methods through use of ICT tools by the faculty

1. PowerPoint presentations- Faculties are encouraged to use power-point presentations in their teaching by using LCD's and projectors. The PPTs are enabled with animations and simulations to improve the effectiveness of the teaching- learning process.
2. Industry Connect- Seminar and Conference room are digitally equipped where guest lectures, expert talks and various competitions are regularly organized for students.
3. Online quiz- Faculties prepare online quizzes for students after the completion of unit with the help of GOOGLE FORMS.
4. Video Conferencing- Students are counselled with the help of Zoom / Google meet applications.
5. Video lecture- Recording of video lectures is made available to students for long term learning and future referencing.
6. Online competitions- Various technical events and management events such as Poster making, Ad-mad show, Project presentations, Business quiz, Debates, paper presentations etc. are being organized with the help of various Information Communication Tools.
7. Workshops- Teachers use various ICT tools for conducting workshops on latest methods such as Programming languages, simulations etc.



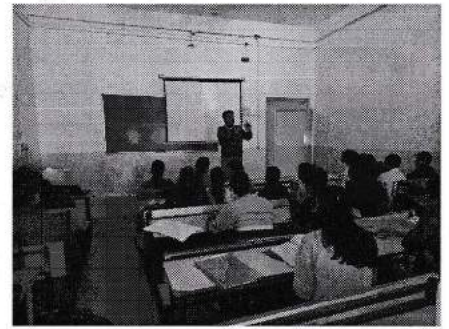
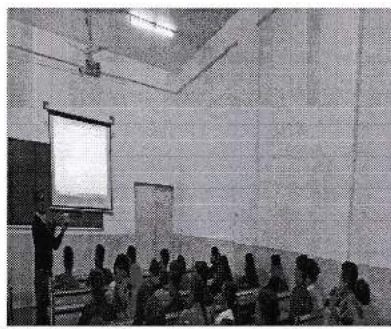
Teaching Using Physical Models and ICT Tools as Participative Learning

In the course, Electronics, and Instrumentation, while explaining about the CRT to the students of II Year ECE, the physical device of CRT was demonstrated to the students to get them a better understanding about the working of the device.

Name of the Teacher: Mr. Devendra S Mandloi

In the course, BEEE, while explaining about the motors to the students of I Year CSE, the physical open weiding was demonstrated to the students to get them a better understanding about the working of the motor.

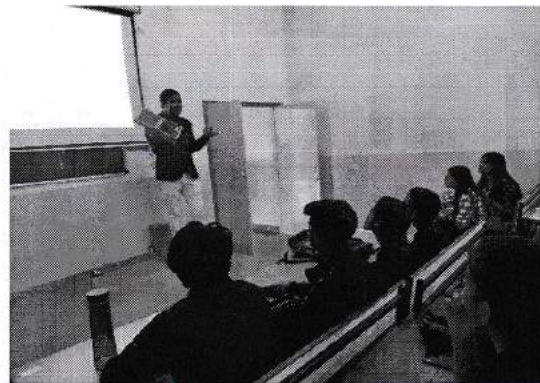
Name of the Teacher: Mr. Ashutosh Kashiv



Teaching Using Demonstration of Kit and ICT Tools as Participative Learning

In the course, Microprocessor and its application, Subject teacher demonstrated the microprocessor kit in the class for better understanding the concept of processor.

Name of the Teacher: Dr. Mukesh Patidar



Conducted Workshops using ICT Tools as Participative Learning

A workshop for students was conducted on Circuit Design & Fabrication with Hands – on Practice” for 1st Year and 2nd Year ECE students. 17 students participated with enthusiasm in this program, to learn PCB Design.

A workshop for students was conducted on PCB Design and Testing with Hands – on Practice” for 1st Year and 2nd Year ECE students. 22 students participated with enthusiasm in this program, to learn PCB Design. Different stages of PCB fabrication were learnt by the students.

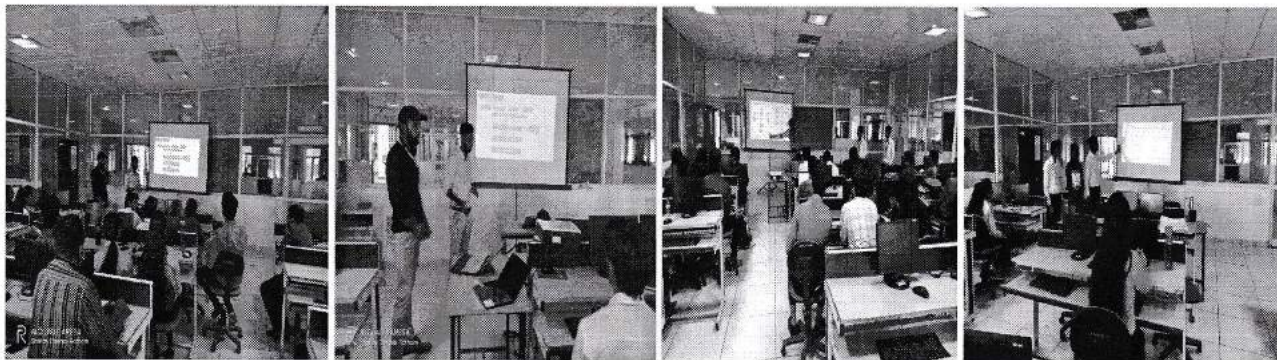
Name of the Teacher: Mr. Ravi Yadav and Mr. Raju S Dawer.



Peer Learning Through Project Presentation using ICT Tools as Participative Learning

The ECE Department organized a Peer Learning through Project Presentation of EC IV Year in VLSI Lab for III year ECE Students.

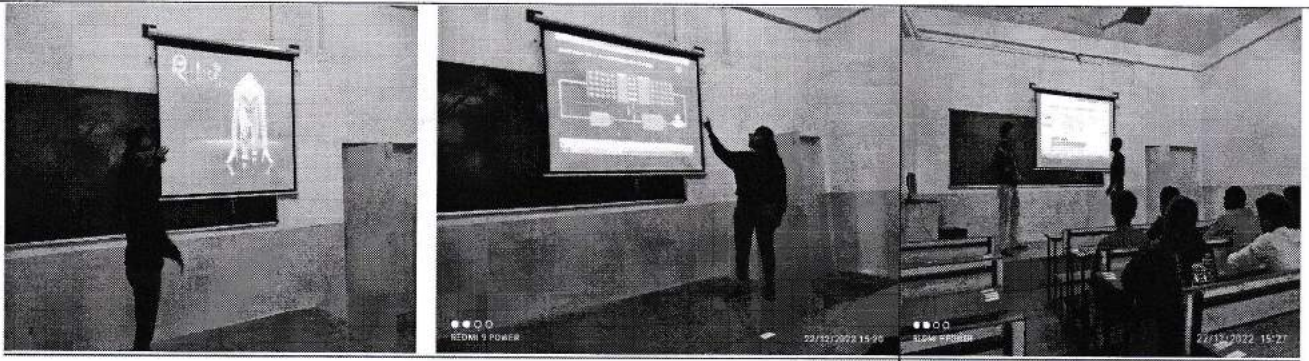
Name of the Teacher: Mr. Shravan Namdeo and Mr. Ravi Yadav.



Peer Learning Through Technical Presentation using ICT Tools as Participative Learning

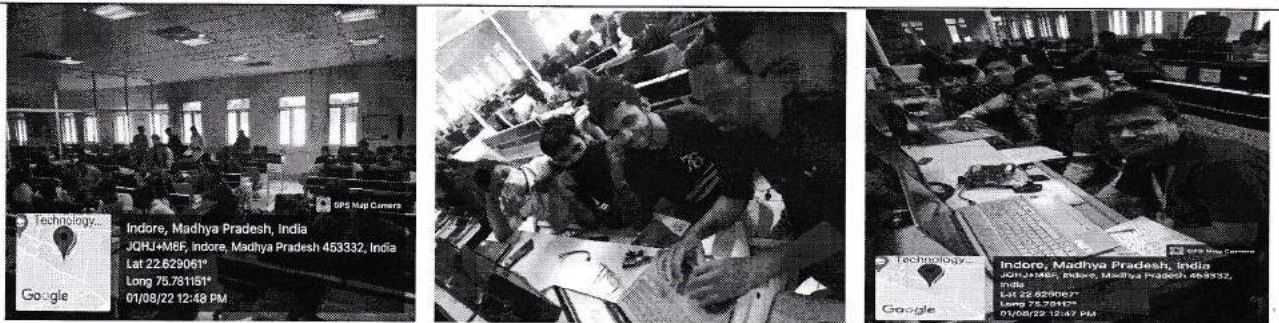
The ECE Department organized a Peer Learning through Technical Presentation on various emerging areas like robotics, IOT etc of EC II Year on 22/12/2022.

Name of the Teacher: Mr. Prabhat Pandey, Mr. Nitin Chauhan, and Mr. Amit Kumar



Conducted Internship using ICT tools as Experiential Learning.

A 40 Hour Internship for ECE students was conducted on Real Time Embedded System and IoT Application with Hands – on Practice” on 28th July 2022 onwards in association with Pi Tech. Pvt. Ltd., for III Year ECE students. 52 students participated with enthusiasm in this program, to learn the Embedded System and IoT Applications.





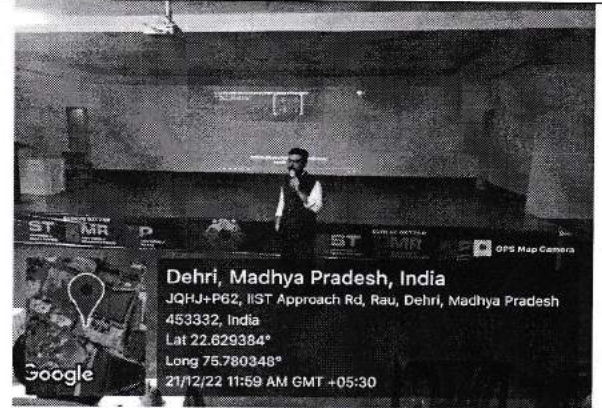
INDORE INSTITUTE OF SCIENCE & TECHNOLOGY, INDORE

Approved by AICTE, New Delhi, Affiliated to RGPV, Bhopal, Recognized by UGC under Section 2(f)

Conducted Certificate Course / Value added

Courses using ICT Tools as Experiential learning.

A 30 Hour Certificate Course for ECE students was conducted on AI Based Product Development on 15-23 Dec 2022 by Mr. Shivang Trivedi, for II Year ECE students. 52 students participated with enthusiasm in this program, to learn the AI Application.



ICT Teaching using animation videos as Participative Learning

The concepts of modulation techniques can be understood in a better way by the students if animated videos are presented to them.

The concept of Amplitude Modulation technique wherein the amplitude of the carrier wave is modified according to the instantaneous amplitude of the message signal is taught using animated videos that are available in the internet.

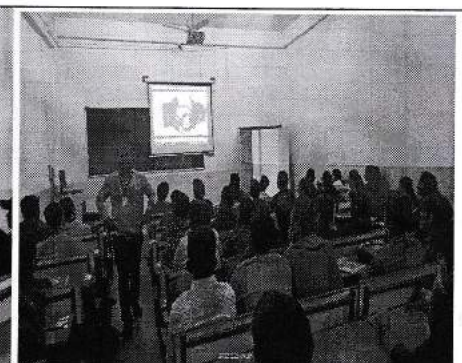
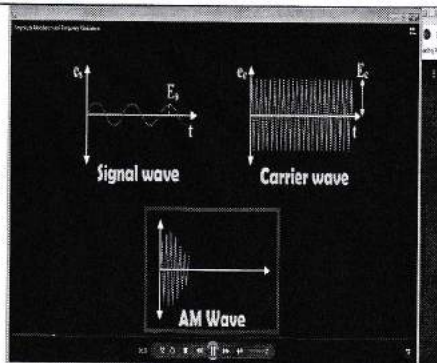
Name of the Teacher: Ms. Arpita Tiwari

The concepts of transistor as a switch can be understood in a better way by the students through animated videos presented to them.

Name of the Teacher: Mr. Prabhat Pandey

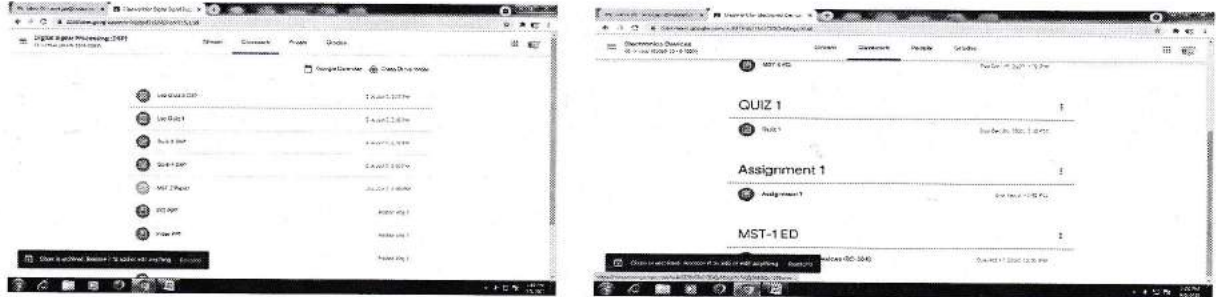
The concepts of motors were explained through animated videos for better understanding of working of the motor.

Name of the Teacher: Mr. Shravan Namdeo



Conducted Quiz using ICT tools.

It is Mandatory all-in subjects and certificate course to be conducted at least one Quiz examination.



Video Recording of Project work done by the students as problem solving

ECE department motivate the students to submit recorded project explanation so that students understand the way of communication and shared the video to the junior to understand the importance of project as well as to understand the project work.



Category / Contribution	CS	IT	EC	ME	CE	CM
Use of ICT Tools	Y	Y	Y	Y	Y	Y
Project / Models	Y	Y	Y	Y	Y	Y
Laboratory Courses	Y	Y	Y	Y	Y	Y
Certificate Courses	Y	Y	Y	Y	Y	Y
Industrial visits	Y	Y	Y	Y	Y	Y
Internships	Y	Y	Y	Y	Y	Y
Field work/ Field survey	-	-	-	-	Y	-
Workshops	Y	Y	Y	Y	Y	Y
Virtual Labs	Y	Y	Y	Y	-	Y
MOOC / NPTEL / Skill Racks / Any self placed course	Y	Y	Y	Y	Y	Y
Group Discussions	Y	Y	Y	Y	Y	Y
Mock Interviews	Y	Y	Y	Y	Y	Y
Technical Presentation (PPT)	Y	Y	Y	Y	Y	Y
Video Demonstration	Y	Y	Y	Y	Y	Y
Student chapter / Society / Clubs	Y	Y	Y	Y	Y	Y
Expert Lecture / Seminar	Y	Y	Y	Y	Y	Y
Quiz	Y	Y	Y	Y	Y	Y
Participating in various competition	Y	Y	Y	Y	Y	Y
Publishing technical papers	Y	Y	Y	Y	Y	Y



Various proof of Students Centric Learning

Training at IIST

S. No.	Date	Workshops / Training	Association	Participation / Total Enrolled	Resource person with contact detail
1	13-03-2023 to 11-04-2023	Data structure and Algorithms	Turning Point	160	Mr. Ankush Saklecha, Turning point
2	20-02-2023 to 04-03-2022	Internet of Things & Applications	Trans-Eurasia Information Network (TEIN) & European Union.	37	Dr. Hari Prabhat Gupta, IIT BHU and Team
3	25-07-2022 to 05-08-2022	Training on ethical hacking	-	85	Mr. Rakesh Verma
4	19-09-2022 to 30-11-2022	Training on Data Structure and Algorithm Using C	Programming World Pvt. Ltd.	48	Mr. Pankaj Wadhvani, Programming World Pvt. Ltd.
5	23-09-2022 to 30-11-2022	Training on logic Building and core Programming, Algorithm and Data Structure Using C++	Programming World Pvt. Ltd.	58	Mr. Pankaj Wadhvani, Programming World Pvt. Ltd.

Other Academic Events at IIST

S. No.	Date	Workshops / Training	Participation / Total Enrolled	Class/year
1	20-01-2023	Poster Presentation	14	II, III & IV
2	20-01-2023	Blog Writing	25	II, III & IV
3	20-01-2023	Technical Quiz Competition	43	II, III & IV

