

# GCET AICTE IDEA Lab

Let's nurture the product  
of your innovative idea.



Activity Newsletter: 2021  
November-December  
Issue-03

## Message From Editors



“That is what learning is. You suddenly understand something you’ve understood all your life, but in a new way.” - Doris Lessing. This is the perfect phrase which briefly explains the motto of IDEA Lab. Following the same thought, a few faculties from the Mechanical, Electronics & Communication, Electrical and Mechatronics departments have visited Labs (similar to the IDEA Lab) of other the Institute as a part of the Faculty Development Program. There they gathered information related to various facilities available with them. And they also took hands-on training on various equipment like PCB design setup, CNC Router, 3D printer and scanner, and many more. This has definitely shown us the guide-way to organize training program and effectively carryout activities of IDEA Lab.

**Prof. Aakarsh S Jain & Prof. Endrick D Contractor**  
Editors,  
GCET AICTE IDEA Lab Activity Newsletter

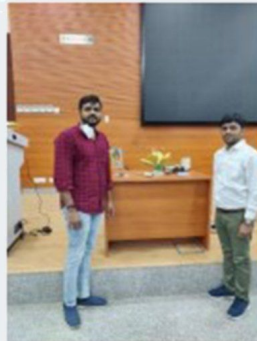
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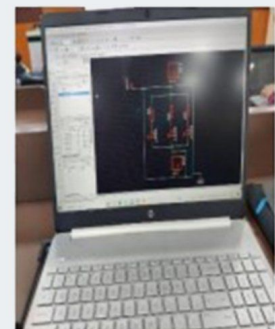
# Faculty Development Program

## FPD on Electronics System design

Dr. Kavindra R. Jain (Electronics and Communication Department) and Prof. Sachin R. Patel (Electrical Engineering Department) attended an Electronic System Design FDP at the Netaji Subhas University of Technology, Delhi (NSUT) organized from 17th November 2021 to 23rd November 2021.



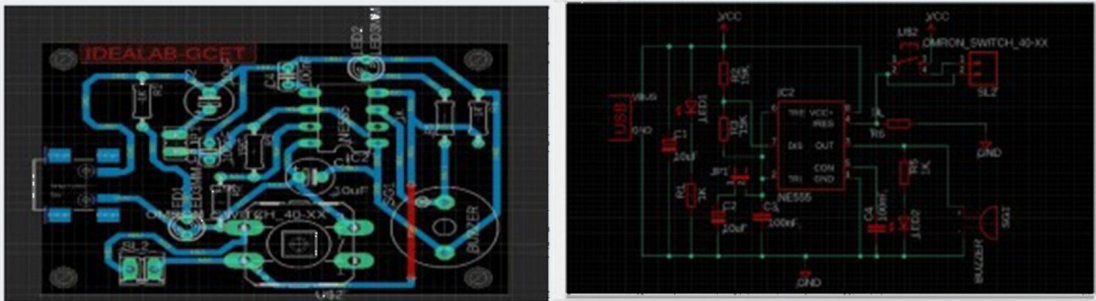
After the inaugural session, the event commenced with a conversation on various innovative ideas related to electronic systems. The day was then followed by an in-depth tutorial and hands-on experience on EAGLE software, which is a necessity for a PCB design process.



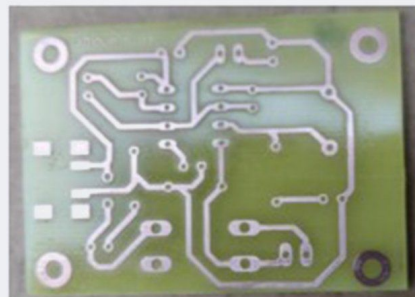
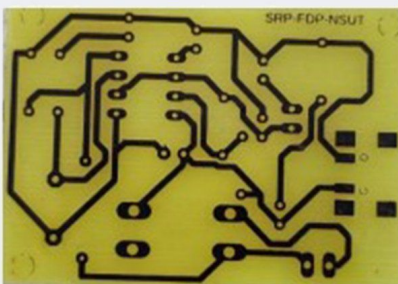
The next day, Dr. Dhananjay Gadre, FDP coordinator, had a small demonstration on 'EMBEDDED SYSTEM DESIGN and its APPLICATION'. On the same day, at ATAL Lab, attendees fabricated the PCB drawn by them the day before. The following day was kicked off with a session

## Faculty Development Program

by Dr. Tarun Kumar Rawat on 'DIGITAL SIGNAL PROCESSING'. The post-lunch session of the same day comprised an understanding of the color mixer and temperature sensor and attendees were asked to draw a schematic diagram with a board layout. Attendees visited Ajay Kumar Garg Engineering College (AKGEC), Ghaziabad, the next day.

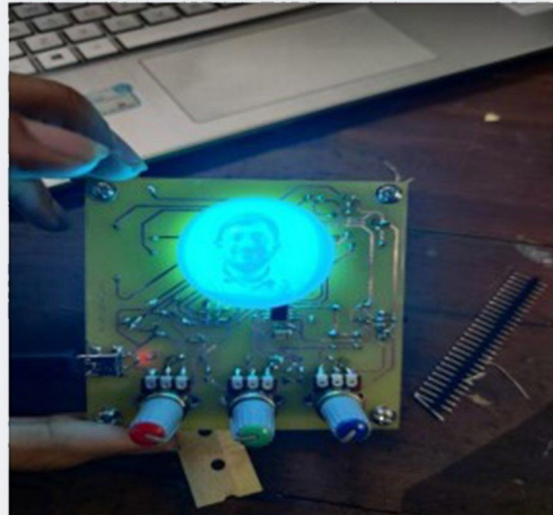
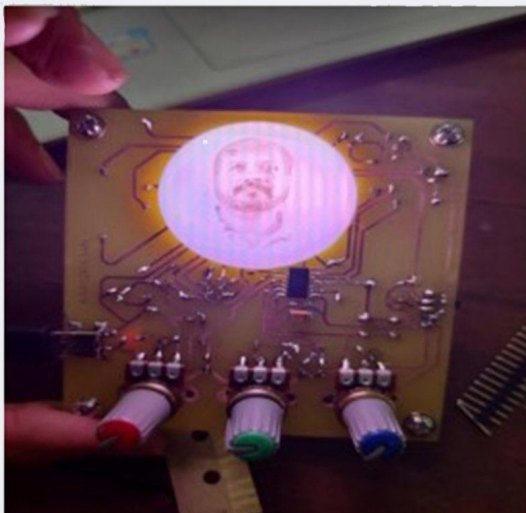


They visited various skill development centers at AKGEC and had a session on 'HAM RADIO' by Dr. Sandip Baruah. The next day commenced with a session by Dr. Dhananjay Gadre on 'POWER SUPPLY SOLUTIONS' in which he covered the basic power supply block diagram. The day was then followed with a demonstration on a 3-D printer working with a kinder table. Routing on the PCB layout board was also completed until dusk. The penultimate day began with a session by Mr. Mritunjay Das of SINK GRID LLP which covered the topic 'EMBEDDED SYSTEM DESIGN, MODELING, and STRUCTURE'. The etching process, drilling, and mounting on the PCB layout board was completed in the proceedings of the day.



# Faculty Development Program

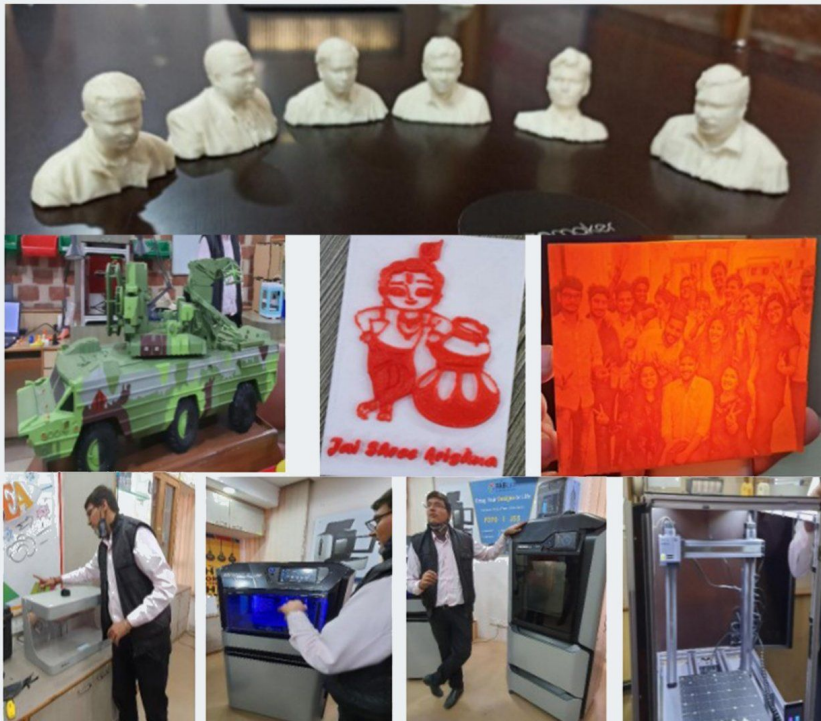
The last day of this FDP consisted of a session by Dr. Dhananjay Gadre where he covered the topic of building an electronics project from scrap. Below are few moments captured during the FDP.



# Faculty Development Program

## FDP on Smart Manufacturing

Prof. Purnank Bhatt (Mechanical Engineering Department) and Prof. Umang Jani (Mechatronics Department) attended a Smart Manufacturing FDP at Ajay Kumar Garg Engineering College (AKGEC), Ghaziabad which was organized from 17th November 2021 to 23rd November 2021.



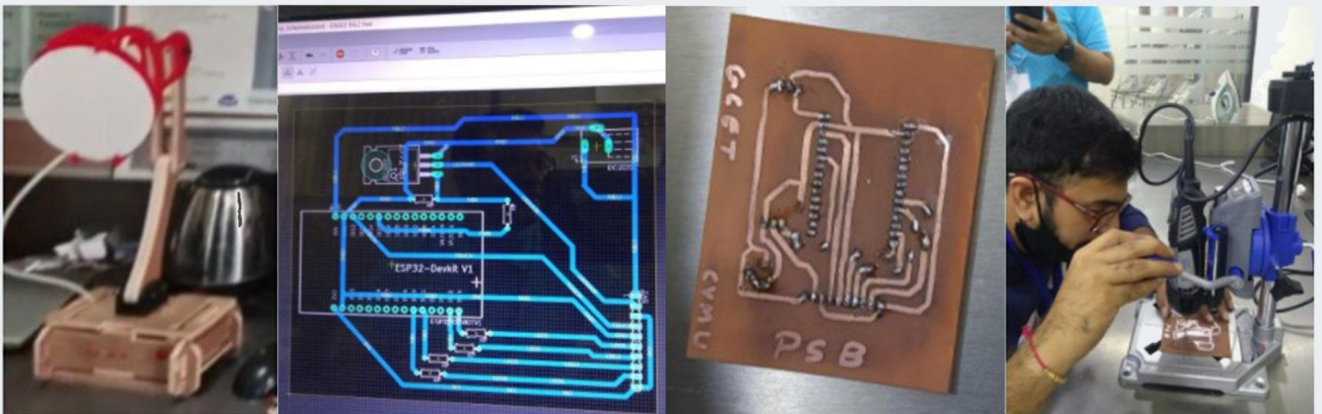
FDP not only contained expert sessions to develop IDEA Lab in respective colleges but also hands-on experience to develop self-disciplinary skills. Practical experience for a different course of study was given on different days under the guidance of an experienced coordinator. The design session was conducted under the guidance of Mr. Puneet Saini where the basics of 'On Shape Software' were covered and attendees were given tasks to be accomplished. Also, an unmediated session was conducted on 3D

## Faculty Development Program

scanning using Artec Eva 3D Scanner. Mr. Lalit Bajaj then conducted a session on 3D printing discussing its capabilities. Mr. Rahul Gautam, director of Exeliq Tech Solution, further conducted a session on CNC-Router at FAB Lab. Later on, firsthand experience with laser cutting and engraver was delivered by the organizing coordinators.



In the last leg of the practical session, PCB was designed for the product Smart Lamp.



Alongside these hands-on sessions, some expert talks took place covering different topics. Mr. Varun had two sessions on design thinking. Prof. Dhananjay Gadre had a talk covering project demonstration on IoT devices. Mr. Sandip Barua gave a brief introduction to HAM Radio. Prof. Ashiv Shah briefed on the opportunities and potential for industrial projects through the IDEA Lab. The 3D printing expert session was conducted by Prof. Avikshit Saras.



## Procured Electrical And Electronics Devices

In the month of December 2021, we developed two labs under the GCET AICTE IDEA Lab scheme. Some equipment related to Electrical and Electronics were procured & installed in the lab.

Digital storage oscilloscope, analog oscilloscope, multimeters, power supply unit, function generator are some of such equipment which were installed taking all economic and physical factors into consideration. The equipment are laid out in such a pertinent manner that any new kid on the block could easily search out for what he needs. Furthermore both the labs are being rigorously maintained, and is open for all the students to work-upon their projects & ideas.



## Upcoming Events

- 1.) **Event name :- Workshop on UI/UX design.**  
**Date :- 22nd January 2022.**  
**Faculty name :- Nisarg Rajpura (UX Designer).**  
**Place :- MS Teams.**

## Engineering Trivia

- ICE(Institute of Civil Engineers) was founded in a coffee shop by eight young civil engineers and the youngest of all was only 19.
- The population in North East London requires the equivalent of 23 Olympic sized swimming pools to prevent half a million people running out of water.
- The diagonal trusses in Burj Al Arab hotel in Dubai are the same length as a football pitch and weight as 20 double decker buses.
- The first computer virus was created in 1986.
- The world's first computer programmer was a renowned female mathematician.
- The first programming language was called FORTRAN.

Source: Internet

**GCET AICTE IDEA Lab  
Departmental Students' Team**

**ME  
Department**

**Chinmay Rudragoudar**

**Deep Pathak**

**Jay Shah**

**Kunal Rana**

**Mitesh Maru**

**Sarang Pandya**

**Tirth Joshi**

**Yash Ranpariya**

**EC  
Department**

**Anubhav Shriwastava**

**Himanshu Patil**

**Mohsin Ali**

**Richa Mishra**

**Rishi Sha**

**Shrushti Parikh**

**Vidisha Sodha**

**Vraj Patel**

**MC  
Department**

**Abhishek Borad**

**Achyut Sapariya**

**Anil Maity**

**Ishan Shah**

**Mit Patel**

**Lovish Ojha**

**Rohan Umrliya**

**Shivam Rana**

**Shubham Sharma**

**Smeet Shah**

**Vinit Trivedi**

**Mehul Kamani**

## **CH Department**

**Aaditya Rai**  
**Aditi Thattil**  
**Dipti Rathod**  
**Jay Chauhan**  
**Kanaiya Patil**  
**Kushal Mehta**  
**Mahir Mansuri**

**Neer Patel**  
**Nil Zalavadiya**  
**Sagar Gohil**  
**Sania Pillai**  
**Harshil Barbhaya**  
**Hemal Dhankecha**

## **CL Department**

**Aditya Lodhari**  
**Kishan Kacha**  
**Nisarg Patel**  
**Pankaj Solanki**  
**Ravirajsinh Vaghela**  
**Yash Shaparia**

## **EE Department**

**Dhaval Kalathiya**  
**Dhruv Bhargav**  
**Dhyey Vithalani**  
**Emmanuel Kamugisha**  
**Gautam Prajapati**  
**Harshil Sathwara**

**Helly Parikh**  
**Hetvi Shah**  
**Mukul Goray**  
**Nand Patel**  
**Parth Vaghela**  
**Shivam Patel**

## CP Department

**Abhishek Pandey**

**Alay Parikh**

**Bhumika Ailawadi**

**Darshan Modi**

**Dhruvi Vadariya**

**Dhyey Dodiya**

**Disha Patel**

**Ishan Bhatt**

**Jhanvi Shukla**

**Kinal Patel**

**Moinuddin Mulla**

**Nishi Patel**

**Nishith Soni**

**Prashant Solanki**

**Riya Patel**

**Sitanshu Goradia**

**Smit Choksi**

**Sneh Vachhani**

**Vraj Mistry**

**Yash Kotadia**

## IT Department

**Aayushee Gurjar**

**Adnan Lokhandwala**

**Henali Shah**

**Henil Patel**

**Jinay Shah**

**Jyot Prajapati**

**Krish bhadvaniya**

**Krishshan Navadia**

**Nainil Oza**

**Priyan Nakrani**

**Rahi Patel**

**Raj Ami**

**Siddharth Chudasma**

**Smit Makhecha**

**Sujal Lakhani**

**Yash Patel**

**Yatri Shah**

# Links For Registration

<b>Utilization by students of Host Institute</b>	<a href="https://bit.ly/3GZc4e8">https://bit.ly/3GZc4e8</a>
<b>Utilization by students of other Institute</b>	<a href="https://bit.ly/35c9ZgU">https://bit.ly/35c9ZgU</a>
<b>Utilization by faculty members of Host institute</b>	<a href="https://bit.ly/3G1mDfv">https://bit.ly/3G1mDfv</a>
<b>Utilization by faculty members of other institute</b>	<a href="https://bit.ly/3nYoewp">https://bit.ly/3nYoewp</a>
<b>Utilization by alumni of Host Institute</b>	<a href="https://bit.ly/3IrOTcS">https://bit.ly/3IrOTcS</a>
<b>Utilization by School Learners</b>	<a href="https://bit.ly/33PgGVY">https://bit.ly/33PgGVY</a>
<b>Utilization by School Teachers</b>	<a href="https://bit.ly/3H2zSOH">https://bit.ly/3H2zSOH</a>
<b>Utilization by Entrepreneur/ start-up</b>	<a href="https://bit.ly/3rLkoYx">https://bit.ly/3rLkoYx</a>
<b>Utilization by Industry</b>	<a href="https://bit.ly/3H36reZ">https://bit.ly/3H36reZ</a>
<b>Event conducted by AICTE-IDEA Lab</b>	<a href="https://bit.ly/3r0IsaY">https://bit.ly/3r0IsaY</a>
<b>Patent registered or granted by Utilization of AICTE-IDEA Lab</b>	<a href="https://bit.ly/35r91hb">https://bit.ly/35r91hb</a>
<b>Award received by Utilization of AICTE-IDEA Lab,</b>	<a href="https://bit.ly/35r91hb">https://bit.ly/35r91hb</a>
<b>Projects completed by using AICTE-IDEA Lab</b>	<a href="https://bit.ly/3rME7XS">https://bit.ly/3rME7XS</a>
<b>Operational Hours of the AICTE-IDEA Lab (Every Day)</b>	<a href="https://bit.ly/3AwJ0s1">https://bit.ly/3AwJ0s1</a>
<b>Investment in AICTE-IDEA Lab</b>	<a href="https://bit.ly/32vMX3N">https://bit.ly/32vMX3N</a>

“ If you can't fly, then run  
If you can't run, then walk  
If you can't walk, then crawl  
But by all means, keep moving ”

- Martin King Luther



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