# IIMT
## COLLEGE OF ENGINEERING
### KP-III, Greater Noida
— Aim For Excellence —

# Electroma

A Quarterly Publication of

## Department of Electronics and Communication Engineering

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## IIMT COLLEGE OF ENGINEERING NEWS LETTER

## Emerging Technologies in Electronics That Will Change Our Future series……

### 1. Virtual Reality/Augmented Reality

Like the other items on this list, VR is becoming more popular as the costs associated with the hardware and software continue to drop. Many of the current applications involve games (see Pokémon Go) or adult entertainment, though as VR becomes more lifelike it will become more valuable for other industries too.

Having lifelike, realistic VR means having a step up in our ability to train and educate people remotely, safely, and cheaply. There are already some applications of this, but we can expect to see many more en route like Google's new phones and Facebook's donation of VR kits to schools.

Dr. Shafi Ahmed was the first surgeon to live-stream an operation, giving viewers a chance to see the surgery from their own VR headsets. Dr. Ahmed's company has also developed VR training programs, giving surgeons the ability to practice on digital people before they stick a knife in the real thing.

### 2. 3D Printing

3D printing, or additive manufacturing, will change the world. It's a cheap and highly-customizable way to build all sorts of things, cheaper and with less waste.

We're learning to print with new materials for new purposes, and the applications are sometimes surprising. Food is definitely the tastiest, like chocolate or even pizza. Then there's clothing, which can be printed to your body's exact specifications.

It's getting to be that we can 3D print almost anything – cars, drones, guns (very controversially), and even 3D printers themselves!

## Desk from Editor

Dear readers,
Greetings to you. We are pleased to present to you another issue of the Newsletter of the Department of ECE, to make you informed about the current happenings in the department. I am glad to see that the faculty student community of the department is striving for greater heights and achievements.

The effort of every educator should be to unlock the treasure of learning and education. The Department of Electronics & Communication Engineering is a perfect example where everyone strives towards achieving this. The department lays emphasis on deep understanding of fundamental principles and knowledge of electronic devices and circuits, computer architecture and microprocessors, VLSI and Embedded Systems, Analog & Digital communication, Digital Signal Processing, microwave and mobile communication

I wish all the best to all students, staff and faculty members of the department, and hope that this issue of departmental newsletter will encourage them to keep doing the good work.
Happy reading!
Prof. (Dr.) Seema Nayak
Chief Editor & HOD Dept. of ECE

## Engineering Quotes

Because sand is Silicon di-oxide and Silicon is the element of maximum use in semiconductors in making the chips working in electronic goods

– Sima Chakrabarti

ELECTRONICS is nothing but a particale of SAND.

# Workshop on Artificial based Embedded System, 9ᵗʰ Oct, 2021

The Department of ECE organized a Workshop on Artificial Intelligence based Embedded System.

This workshop was organized under IEI student chapter of the Department.) Mr. Chetan Prakash (Project Engineer, Sr. Data Scientist Expert) elaborated discussion upon the AI and its opportunities in industry.

He discussed that for a number of years, artificial intelligence has been at the top of the technology must-watch list for evolving trends and applications. With our ability to build smart machines that simulate human intelligence, the implications for technological advancement across numerous sectors are endless. So, what could be better than artificial intelligence? Embedded artificial intelligence.

Embedded artificial intelligence (AI) is the application of machine and deep learning in software at the device level. Software can be programmed to provide both predictive and reactive intelligence, based on the data that is collected and analyzed.

With embedded AI, devices have the ability to run AI models at the device level and then directly use the results to perform an appropriate task or action. The cloud is still helpful from a data storage perspective, as data can be stored temporarily at the device level and eventually sent to a cloud server for safekeeping.

He gave brief overview of application of embedded AI system that are very are vast, here's a short list of industries where this technology is automating processes, providing advanced analytics and business insights, and improving customer service, among numerous other benefits.

# "Opportunities and Challenges of VLSI Industry" (Under SCIE), 12th Oct, 2021



The Department of ECE organized a Guest Lecture on Opportunities and Challenges of VLSI Industry.

This Guest Lecture was organized under SCIE society of the Department. Mr. Puneet Mittal (Founder & Director VLSI Expert Pvt Ltd.) elaborated discussion upon the VLSI Design and its opportunities in industry.

He discussed about basic of VLSI that "What is VLSI" and covered till what will be scope of VLSI in industry. He discussed how the VLSI industry to comprehend its requirements so that the industry content is well delivered on its standards maintained. Mr. Puneet discussed about the front end and back end desiging of VLSI,

He discussed the FPGA implementation which is emerging field for ECE students. He discussed that It is very important to know the scope of electronics and semiconductor engineering for engineering students and about the industry growth.

If you are not sure about the How to make career in VLSI Semiconductor industry, then stick to the end of this blog to know everything about semiconductor industry.

Nowadays the electronics industry is growing very fast, due to which the electronics engineer scope has increased greatly in India as well. In the last few years, it has been seen lot of startups has opened in India and increasing day by day.

Mr. Puneet discussed about the RTL designing, ASIC Verification, synthesis of digital system, physical desiginig .layout designing and designing of memory circuit. Mr. Puneet also discussed the placement scope of VLSI experts in industries.

Electronics engineering is quite a vast field in that all electrical components are designed such as microprocessors, transistors, diodes and microcontrollers, all these components help to build a circuit and PCB's system like wireless phone, satellite system and telecommunication etc.

# "My Story - Motivational Session by Successful Innovators" (Under SCIE) Through IIC, 28ᵗʰ Oct, 2021



The department of ECE organized a motivational session on "My Story - Motivational Session by Successful Innovators" under the IIMT Innovation Cell on 28th October 2021 at 11::00 AM – 12:00 PM. The Speaker was Ms. Shivani Mishra Founder & Director CUREYA.

She discussed what Start-up is, How we can start it? What should be the objectives of our start up and what are the challenges which we can face during start up?

A Start up is a company in the early stages of development that is set up by one or several people to enter an existing market with unique products or services. Startup companies often face insufficient capital to fund their business operations to be at the same level as already established companies.

One of the major challenges faced by startup companies is raising the required amount of capital to fund their development. Startup companies sometimes do not generate any revenues at their inception. Instead, they understand that they first need to grow, test, and market.

## "My Story - Motivational Session by Successful Innovators" (Under SCIE) Through IIC, 10ᵗʰ Nov, 2021
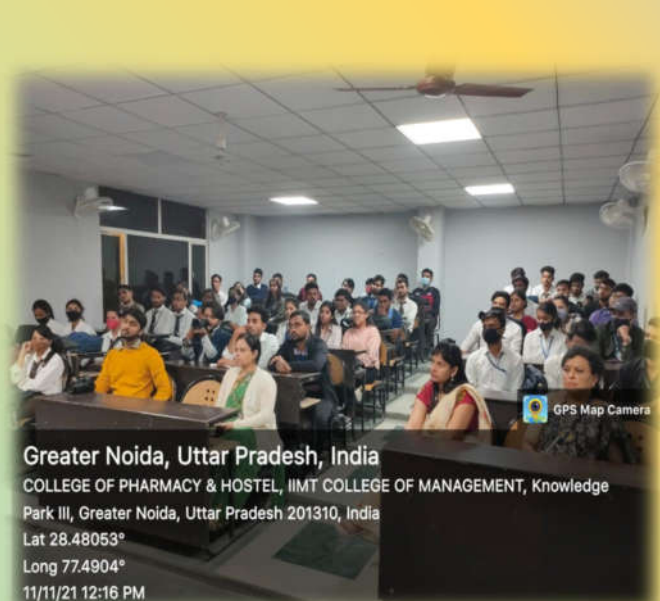


The department of ECE organized a motivational session on "My Story - Motivational Session by Successful Innovators" under the IIMT Innovation Cell on 10th November 2021 at 11::00 AM – 12:00 PM. The Speaker was Prof. S. K. Mahajan Retired Scientist CEERI Pilani .

He discussed what Start-up is, How we can start it, What should be the objectives of our start up and what are the challenges which we can face during start up.

A Start up is a company in the early stages of development that is set up by one or several people to enter an existing market with unique products or services. Startup companies often face insufficient capital to fund their business operations to be at the same level as already established companies.

He discussed that his journey as an entrepreneur started from CEERI Pilani where he firstly introduced a transistor SL 100. According to him innovation should be in production and manufacturing industry, it is not necessary innovation should be novel; mandatory thing is that it should be cost effective.

For the survival in the market firstly understand the trend of market and our technology should be updated with time .To start the start up we should see all around and find out the problem means "NEED OF MARKET" than work on that problem to find out the best solution in effective cost.

# Industrial Visit on "APPWARS Technologies Pvt Ltd", 22$^{nd}$ Nov, 2021

The department is organized an Industrial Visit on 22nd November 2021 in APPWARS Technologies Pvt Ltd B-3 Sector 2 Near Sector 15 Metro Station.

APPWARS Technologies is the India's fastest growing company in the field of Educational Workshop, On Campus Training and Professional Training & Corporate Training with most advanced technologies & experience in hand.

APPWARS Technologies Pvt. Ltd. (The Ministry of Corporate Affairs Registered Company and A Ministry of MSME Govt. of India Approved Company) is the India's fastest growing company in the field of Online Training, Project Training, Summer Internship Training, Winter Training, Industrial Training, Faculty Development Training and Corporate Training with most advanced technologies & experience in hand.

APPWARS Technologies delivers interactive Training & Workshops which equip its participants with better practical understanding and preparation for jobs in industry. The hands-on sessions and lectures are designed based on current industry trends and draw on the rich experience of instructors and organizers.

# Industrial Visit on "TIFAC CENTRE OF RELEVANCE AND EXCELLENCE", 26$^{th}$ Nov, 2021

On Friday, 26th November 2021, a one-day Visit at TIFAC CENTRE OF RELEVANCE AND EXCELLENCE- Ghaziabad organized by IIMT College of Engineering, Greater Noida under Robotics Club for all branches of IIMT College of Engineering by the Robotics Club coordinator: Ms. Sheetal Nagar, Assistant Professor, Department of Electronics and Communication Engineering.

The motive of the Visit to enhance the knowledge of Robotics and Automation for the students and to involve them in the extra-curricular activity.

The student coordinators were: Harsh Bhardwaj (Electronics and Communication IV Year) and Chandan kumar (Electronics and Communication III Year) and have put out the hard work and dedication towards the successful conduction of the visit.

## Idea Competition "Developing Online Repository of Ideas Developed & Way Forward Plan" (Under TI) Through IIC, 30ᵗʰ Nov, 2021

The department of ECE/CSE organized an Idea Competition on "Developing Online Repository Of Ideas Developed & Way Forward Plan" under TI through the IIMT Innovation Cell on 30th November 2021.

The Idea Competition is designed to facilitate the development of great ideas and help those ideas find fulfillment. Participants compete for prizes that include cash, mentoring, and engagement in the incubator process to help develop those ideas.

Ideas judged by a jury of professionals. The ideas is judged by the coordinator of event .The ideas with the most innovative and helpful solution won and mentoring for their idea implementation.

Contest goals are two-fold: 1) to support innovative projects with promising potential for social impact, and 2) foster a diverse pipeline of young innovators through targeted outreach, support, and educational opportunities.



## "One Day Programme on Invention through Make in India Initiative" (Under SCIE) Through IIC, 7ᵗʰ Dec, 2021



The department is organized a One Day Programme on Invention through Make in India Initiative" (Under SCIE) Through IIC followed by quiz completion.

Mr. Jay discussed about Make in India initiative and policies of government related to start up. Make in India is an initiative by the Government of India to make and encourage companies to develop, manufacture and assemble products made in India and incentivize dedicated investments into manufacturing.

The policy approach was to create a conducive environment for investments, develop a modern and efficient infrastructure, and open up new sectors for foreign capital. The initiative targeted 25 economic sectors for job creation and skill enhancement, and aimed "to transform India into a global design and manufacturing export hub. He discussed recent invention like Make in India, Digital India and Startup India have given the much-needed thrust to the Electronics System Design and Manufacturing (ESDM) sector in India.

# "One Day Programme on Invention through Make in India Initiative" (Under SCIE) Through IIC, 7ᵗʰ Dec, 2021 contd....



Mr. Vivek discussed about the starting of Make in India that Make in India is the BJP-led NDA government's flagship campaign intended to boost the domestic manufacturing industry and attract foreign investors to invest into the Indian economy.

The Indian Prime Minister, Mr. Narendra Modi first mentioned the key phrase in his maiden Independence Day address from the ramparts of the Red Fort and over a month later launched the campaign in September 2014 with an intention of reviving manufacturing businesses and emphasizing key sectors in India amidst growing concerns that most entrepreneurs are moving out of the country due to its low rank in ease of doing business ratings.

## Major Activity on "Poster Making" (Under SCIE) in Infinity 2K21



The department of ECE organized a major activity on "Poster Making" under SCIE on 8th December 2021 at 11::00 AM – 12:00 PM in Infinity 2K21.

In this event around 50+ students participated those are from different colleges of Greater Noida Region. The Theme of Poster making was E-Waste and Industry 4.0 in which student shows there talent

On the basis of Conciseness, Representation ,catchy Slogan, Creativity and Explanation three participants are selected.

First position winner received the gold medal and 1000 cash prize, second runner up silver model with 500 cash prize and third runner up received the bronze medal.



| Editorial Board | Chief Editor: | Co-Editor: | Students Editor: |
|---|---|---|---|
|  | Prof.(Dr) Seema Nayak | Mr. Deepak Sahu | 1. Ms. Vaishnavi Gupta (ECE-4A) 2. Mr. Rohit Gupta (ECE-4A) 3. Mr. Chandan Kumar (ECE-3A) |