

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



Electroma

A Quarterly Publication of
Department of Electronics and Communication Engineering

Volume V, Issue 5, July –September, 2022

IIMT COLLEGE OF ENGINEERING NEWS LETTER

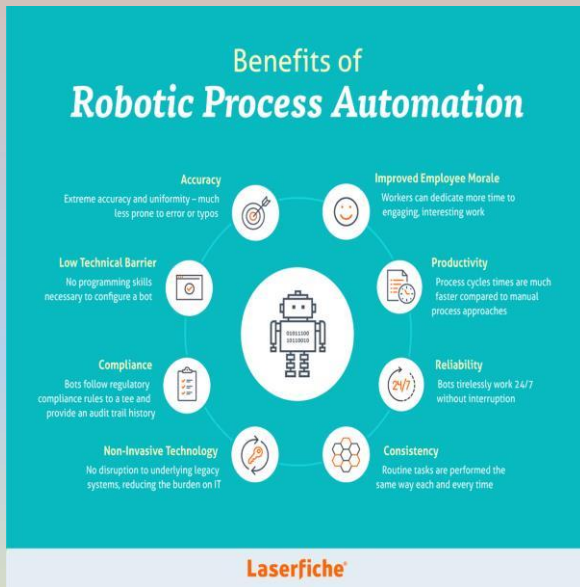


Emerging Technologies in Electronics That Will Change Our Future series.....

from Editor Desk

1. Robotic Process Automation (RPA)

RPA bots, or just "bots", are **software programs that you set up to do digital work**. They're not just simple Chabots - they're a Digital Workforce. RPA bots can interact with any system or application the same way a human worker would. It's as simple as showing your bots what to do, then letting them do the work.



2. Micro LED

Micro LED development and research, the commercialization of the next generation display technology is still delayed. Due to technology barriers and equipment limitation, production cost for Micro LED display remains sky high, leading to postponed timeline of Micro LED display commercialization.



Dear readers,

In the current context of rapid changes that are taking place in our country, all activities directed towards economic advancements are required to be addressed with the highest priority. In this effort, it is also imperative to prepare social engineers, who could contribute to and manage the needs of the society with the equanimity of mind and an attitude of selfless social service. IIMT College of Engineering, our parent trust with abundant experience in the field of education and social service has always been focusing its efforts on this very important activity of nation-building.

IIMT College of Engineering is consistently rated amongst the top 100 Engineering colleges of our country by various ranking institutions. Electronics and Communication engineering is one of the oldest branches of engineering. It is also referred to as the “mother” branch of engineering. Another appealing feature of Electronics and Communication Engineering is that the application base of this field of study is extremely broad and diverse. Almost all inventions during the ancient period and a vast majority in the modern era are direct contributions of one or the other application of electronics.

Engineering Quotes



Plastic Model Presentation in Environmental Club Activity, 24th September 2022

Students of Electronics and communication department participated in “best of wastage activity” by using plastic. **Environmental Club** is a professional club. Like chemistry, biology, ecology, geology, hydraulics, hydrology, microbiology, and mathematics electronic engineering students can create solutions that will protect and also improve the health of living organisms and improve the quality of the environment.

Environmental engineering is a sub-discipline of civil engineering and chemical engineering. While on the part of civil engineering, the Electronics Engineering is focused mainly on power Engineering.

Electro-Environmental engineering is the application of scientific and engineering principles to improve and maintain the environment to:

- protect human health,
- protect nature's beneficial ecosystems, and improve environmental-related enhancement of the quality of human life.

Environmental club advises solutions for wastewater management, water and air pollution control, recycling, waste disposal, and health. They design municipal water supply and industrial wastewater treatment systems, and design plans to prevent waterborne diseases and improve sanitation in urban, rural and recreational areas. They evaluate hazardous-waste management systems to evaluate the severity of such hazards, advice on treatment and containment, and develop regulations to prevent mishaps. They implement environmental engineering law, as in assessing the environmental impact of proposed construction projects.



“Faculty Achievement”

(Published a book)



The book reviews the development of current technologies under the theme of the emerging concept of healthcare, specifically in terms of what makes healthcare more efficient and effective with the help of high-precision algorithms. The mechanism that drives it is machine learning, deep learning, big data, and Internet of Things (IoT)—the scientific field that gives machines the ability to learn without being strictly programmed. It has emerged together with big data technologies and high-performance computing to create new opportunities to unravel, quantify, and understand data-intensive processes in healthcare operational environments.

This book offers comprehensive coverage of the most essential topics, including:

- Introduction to e-monitoring for healthcare
- Case studies based on big data and healthcare
- Intelligent learning analytics in healthcare sectors using machine learning and IoT
- Identifying diseases and diagnosis using machine learning and IoT
- Deep learning architecture and framework for healthcare using IoT
- Knowledge discovery from big data of healthcare-related processing
- Big data and IoT in healthcare

HOD of ECE department edited a book of title “Machine learning, deep learning, big data and internet of things for Healthcare" published by CRC PRESS, Taylor & Francis.



“Faculty Achievement”

(Selected as a Jury member for final project evaluation at Pragati Maidan New Delhi)



Mr. BASANTA MAHATO from ECE department received invitation, for the 9th National Level Exhibition and Project Competition (NLEPC).

NLEPC is the INSPIRE Awards – MANAK (Million Minds Augmenting National Aspiration and Knowledge),

Innovation in Science Pursuit for Inspired Research (INSPIRE) scheme is one of the flagship programmes of Department of Science & Technology (DST), Government of India.

5-Days Online FDP on “TOOLS FOR ENGINEERING RESEARCH” in Collaboration of NITTTR, Chandigarh

Online STC on "TOOLS FOR ENGINEERING RESEARCH"
Organized by NITTTR, Chandigarh in Collaboration with Department of ECE (Under Internal Quality Assurance Cell)

- Research Project Proposal preparation and Implementation : Case study on real time projects at CSIO
- Acquiring data from hardware through IoT, Pre processing, Analysis and visualization
- Feature Engineering - Analysis, selection and mode building using Machine learning Techniques
- Algorithms for uncertainty analysis
- RTI and Hardware validation techniques
- Plagiarism, IPR, mendeley and LaTeX software
- Result Oriented papers, Comprehensive Literature Review (CLR) Rules, Types (Methodological, Historical, Theoretical etc.), Structure & Organization with Examples
- Systematic Literature Review : Understanding PRISMA Flow, Guidelines, Formation of Search Query, Identifying Literature form Databases, Screening Organizing: Rules and Techniques with Examples

PATRONS: Prof. (Dr.) M. K. Sengupta, Director General, IIMT Group of Colleges; Dr. S.S. Tyagi, Director, IIMT College of Engineering

COORDINATOR: Prof. (Dr.) Seema Nishu, HOD, ECE, IIMT College of Engineering

CO-COORDINATORS: Mr. Basanta Mahato, Assistant Professor, ECE, IIMT College of Engineering; Ms. Aparna Mishra, Assistant Professor, ECE, IIMT College of Engineering

Course is Free <https://ftp.nitttrchd.ec.in/backingup/index.php>

Date : 19th - 23rd September, 2022

ONLINE STC ON TOOLS FOR ENGINEERING RESEARCH
19TH TO 23RD SEPTEMBER 2022

COURSE CONTENT

- Research Project Proposal preparation and Implementation : Case study on real time projects at CSIO
- Acquiring data from hardware through IoT, Pre processing, Analysis and visualization
- Feature Engineering : Analysis, selection and model building using Machine learning Techniques
- Algorithms for uncertainty analysis
- RTI and Hardware validation techniques
- Plagiarism, IPR, Mendeleev and LaTeX software
- Result Oriented Papers, Comprehensive Literature Review (CLR): Rules, Types (Methodological, Historical, Theoretical etc.), Structure & Organization with Examples

Department of ECE has organized 5-Days FDP on “TOOLS FOR ENGINEERING RESEARCH” in collaboration of NITTTR, Chandigarh from date 19th September 2022 to 23rd September 2022. Many faculties from outside participated. The lectures delivered by the speakers are very of innovative and providing good platform for research.

National Institute of Technical Teachers Training and Research, Chandigarh
Electrical Engineering Department
Online STC on
“Tools for Engineering Research”, during 19th to 23rd September 2022

DAY & DATE	TENTATIVE TIME-TABLE		
	Live Session - 1 9.30 AM to 11.00 AM (IST)	Live Session - 2 11.30 AM to 1.00 PM (IST)	Live Session - 3 2.30 PM to 4.00 PM (IST)
Monday 19/09/2022	Plagiarism, Mendeleev (SSL)	Research Project Proposal preparation and implementation : Case study on real time projects at CSIO (BB)	Artificial Intelligence and optimization for Engineering Research (SSL)
Tuesday 20/09/2022	Acquiring data from hardware through IoT, Pre-processing, statistical Analysis and visualization	Feature Engineering Analysis, selection and model building using Machine learning Techniques (JS)	Research, Innovation and IPR (PS)
Wednesday 21/09/2022	Reliability Evaluation of Restructured Power System with Integration of RES and Electric Vehicle (SK)	Big Data analytics for Electrical Engineering (SSL)	Human Inspired Optimization Algorithm (RK)
Thursday 22/09/2022	LaTeX software (MAS)	LaTeX software (MAS)	RTI and Hardware validation for research problem (SSL)
Friday 23/09/2022	Result Oriented Papers, Comprehensive Literature Review (CLR): Rules, Types (Methodological, Historical, Theoretical etc.), Structure & Organization with Examples (JS)	Systematic Literature Review: Understanding PRISMA Flow Guidelines, Formation of Search Query, Identifying Literature from Databases, Screening, Organizing: Rules and Techniques with Examples (JS)	STC Valediction, Feedback and Evaluation (SSL)

SSL: Dr. Shimi S.L, Assistant Professor, Electrical Engineering, NITTTR, Chandigarh
BB: Dr. Baban Kumar Bausod, Senior Principal Scientist & Professor, CSIR-CSIO, India
JS: Dr. Jagriti Saini, Founder Eternal RESTEM, Sunder Nagar, HP
RK: Dr. Rishanjit Kaur, Principal Scientist, Centre of Excellence for Intelligent Sensors and Systems (ISESS), CSIO, Chandigarh

Student's achievements of ECE Department (Best Projects/Product)

Three projects/products are from ECE department selected as best in IIMT group of colleges, Greater Noida

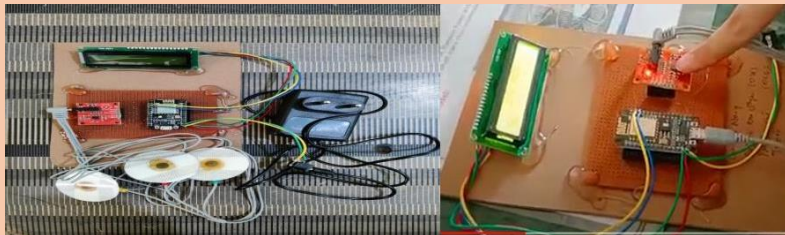
- **COGNITIVE BOT USING LoRa**
Group Member: APAN JAIN, PRATUSH BISOYI, AZMAT KHAN
Guide name: Mr. BASANTA MAHATO
- **Air Purifier**
Group Members: AKANKSHA RAJ, RUCHI KUMARI, SAKIB ZAYA
Guide Name: Dr. SEEMA NAYAK
- **Heart disease prediction using ECG and ML**
Group Members: PRIYANSHI, RAJIV KUMAR, JYOTI
Guide name: Dr. SEEMA NAYAK



Project: Cognitive BOT using LoRa



Project: Air Purifier



Project: Heart disease prediction using ECG and ML

Celebration of AZADI KA MAHOTSAV (On 12th August, 2022)

Department of Electronics and communication participated in Azadi Ka Amrit Mahotsav. This is an initiative of the Government of India to celebrate and commemorate 75 years of independence and the glorious history of its people, culture and achievements. Azadi Ka Amrit Mahotsav is a series of events organised by the Government of India

To commemorate the 75th Anniversary of India's Independence. The Mahotsav is being celebrated as a Jan-Utsav in the spirit of Jan-Bhagidari.

As a part of this nationwide agenda, IIMT College of Engineering, Greater Noida has actively participated in 'Azadi Ka Amrit Mahotsav' by observing during 11- August- 2022 to 17- August-2022.

On 12th August, 2022 speeches and power point presentation was made mentioning our freedom fighters their sacrifices, devotion were enumerated. Also were shown achievement done; ideas for coming years in context with India's development a brief overview was shown.



Minor Activity
PPT Presentation On
“Innovation In Higher education for Aatmanirbhar Bharat” (R&D Activity of ECE Department)
Date : 23th September 2022 Time : 2:00 PM onwards
Mode: Offline

The Department of ECE organized a Minor activity on PPT Presentation on “Innovation In Higher education for Aatmanirbhar Bharat”. Students elaborated discussion upon the Aatmanirbhar Bharat. Any people have ideas, but only a few know how to start a business or transform their concept into a viable venture. There are many benefits of the Atmanirbhar Bharat Abhiyan Scheme, also we can the data that there is a huge increase in household toilet coverage and use including health care, environment cleanliness reduced property, reduced air pollution, and many more. The aim is to make the country and its citizens independent and self-reliant in all senses. He further outlined five pillars of Aatma Nirbhar Bharat – Economy, Infrastructure, System, Vibrant Demography and Demand.

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Department of Electronics and Communication Engineering
Is Organizing
Minor Activity
PPT Presentation
On
Innovation in Higher Education for Aatmanirbhar Bharat

VENUE
Room no 315, Smart Class Room

MODE: OFFLINE
Last date of Registration:
21 Sep 2022

DATE
23rd September, 2022

TIME
02:00 pm Onwards

PATRONS
Prof. (Dr.) S.S. Tyagi
Director
IIMT College of Engineering

Dr. Seema Nayak
HOD, ECE
IIMT College of Engineering

COORDINATOR
Ms. Zehra Ishaq
Assistant Professor, ECE
IIMT College of Engineering

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Minor Activity On

Technical Idea Competition "Covid-19 Protection Using AI/IOT" Under Technical Club Electro Infinity

(Activity of ECE Department)

Date : 28th Sept 2022 **Time :** 2:00 PM onwards **Mode:** Off Line

The Department of ECE organized on "Technical Idea Competition Covid 19 Protection Using IOT/AI". This activity was organized under Electro Infinity Club. **Ms. Sheetal Nagar** elaborated discussion upon the Technical Idea, and what are the different Methods for COVID-19 Protection. Many people have ideas, but only a few know how to implement or transform their concept into a viable venture. As a result, this blog post will assist you in this respect, outlining the criteria for being classified as a Innovator and a Critical Thinker.

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Department of Electronics and Communication Engineering

Is Organizing
— Minor Activity —
On
Technical Idea Competition
Covid-19 Protection Using AI/IoT
Under Technical Club (Electro Infinity)

VENUE
Room no 315, Smart Class Room

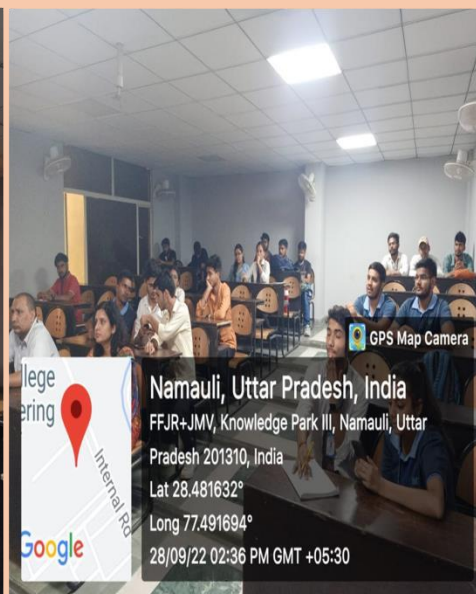
MODE: OFFLINE
Last date of Registration:
26th Sept., 2022

28th September, 2022
02:00 PM Onwards

PATRONS
Prof. (Dr.) S.S. Tyagi
Director,
IIMT College of Engineering

Dr. Seema Nayak
HOD, ECE
IIMT College of Engineering

COORDINATOR
Ms. Sheetal Nagar
Assistant Professor, ECE
IIMT College of Engineering



Minor Activity On “Awareness on Innovation to Student Innovator” Through ICon date 24th August 2022, at 11:00am

Objective of minor activity:

- a. To promote new technology/ knowledge/ innovation.
- b. To build a vibrant start-up ecosystem, by establishing a network between academia,

Financial institutions, industries, and other institutes.

- c. The major objective of the programme is to generate awareness among the students,

academia, general public etc. about the importance of Technology, its utility for the overall

INSTITUTION'S INNOVATION COUNCIL
(Ministry of Education Initiative)

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MoE IIMT ENGINEERING INNOVATION CELL &
DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

are Jointly Organizing
Session on
“Session on Awareness on Innovation to Student Innovator”

Speaker
Mr. S.K. Mahajan
Retd. Senior Scientist
CSIR-CEERI PILANI

Date: 24th August, 2022
Time: 11 AM Onwards

PATRONS
Dr. S.S. Tragi, Director, IIMT College of Engineering
Dr. Sanjay Paschauri, IIMT-ICC, President, IIMT College of Engineering
Dr. Seema Nayak, HOD, Department of ECE

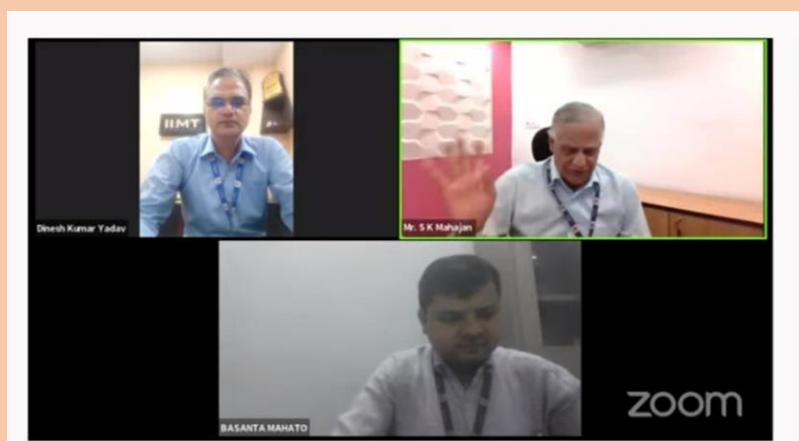
MODE ONLINE
YouTube Live

COORDINATOR
Ms. Zaiba Ishrat, Assistant Professor, Department of ECE

Scan for Registration

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Entrepreneurship and Innovation minors will develop and cultivate endurance. Students increase their awareness and deliberately practice the skills and disciplines necessary to increase confidence and agency; foster self-efficacy and self-advocacy; improve communication and problem-solving skill, manage strong impulses and feelings; and identify personal purpose



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