



MECHATROMA

A Quarterly Publication of Department of Mechanical Engineering

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From Editor's Desk

Dear Readers,

It is my pleasure and great privilege to present before you new Issue of our departmental Newsletter. There is an attempt to update the faculty and students with 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 Department of Mechanical Engineering, established in 2005 and having an intake of 120 seats, offers a B. Tech course. The department emphasizes a deep understanding of fundamental principles and knowledge of Manufacturing Technology, Design, Thermal, and Industrial Engineering.

I wish all the best to all students, staff, and faculty members of the department, and I hope that this issue of the departmental newsletter will encourage them to keep doing good work.

Prof. (Dr) Peeyush Vats

(HoD, ME)



Quote for Quarter

“Quality is not what happens when what you do matches your intentions. It is what happens when what you do matches your customers’ expectations.” (Guaspari)

Department of Mechanical Engineering

In the modern world, Mechanical Engineering is central to many activities leading to industrial and business growth. Mechanical Engineering is concerned with all types of machinery in industries and all aspects of their mechanism and functioning - the design, development, construction, production, installation, operation, and maintenance. Mechanical engineering course provides the core knowledge for the range of careers in these areas. They are the driving force behind many of our technologies and industrial processes. Mechanical engineers are involved in creating the future. It is also the basis on which other branches of engineering are dependent. Mechanical Engineers are expected to apply basic concepts of physics, chemistry, chemical engineering, electrical engineering, electronics, and civil engineering. The benefit of this fundamental role is that the wide coverage of the subjects in Mechanical Engineering provides a wide choice of career options in industries as diverse as heavy engineering, power plants, steel plants, oil and petroleum, chemical, food, pharmaceutical, environmental protection, and energy conservation.

Recent trends in Mechanical Engineering

1. Automation and robotics
2. Manufacturing applications of IoT
3. Additive manufacturing
4. Big Data Analytics
5. Artificial intelligence in manufacturing
6. Machine learning in manufacturing
7. Application of data analytics in mechanical engineering

IIC Activities

Institution's Innovation Council (IIC) of India has established 'MoE's Innovation Cell (MIC)' to systematically foster the culture of Innovation amongst all Higher Education Institutions (HEIs). It is a great initiative to empower students as well as faculty members. It provides exclusive opportunities to participate in various Innovation related initiatives and competitions organized by MHRD. It gives prospects to student entrepreneurs and innovators to go for start-up, innovation, and entrepreneurship. The Mechanical Engineering Department will organize various activities in the collaboration of the IIC-IIMT for the awareness about skill development, innovation, and start-up activities from time to time.

The major focus of IIC: To create a vibrant local innovation ecosystem. Start-up supporting Mechanism in HEIs. Prepare institute for Atal Ranking of Institutions on Innovation Achievements Framework. Establish Function Ecosystem for Scouting Ideas and Pre-incubation of Ideas. Develop better Cognitive Ability for Technology Students.

Functions of IICs:

To conduct various innovation and entrepreneurship-related activities prescribed by Central MIC in a time-bound fashion.

Identify and reward innovations and share success stories.

Organize periodic workshops/ seminars/ interactions with entrepreneurs, investors, professionals and create a mentor pool for student innovators.

Network with peers and national entrepreneurship development organizations.

Create an Institution's Innovation portal to highlight innovative projects carried out by the institution's faculty and students.

Organize Hackathons, idea competitions, mini-challenges, etc. with the involvement of industries.

Guest Lecture: Under IIMT-IIC and Department of Mechanical Engineering

Various activities have been performed in the Department of Mechanical Engineering with the coordination of IIMT-IIC. The details of activities are the following:

Sr. No	Name of Event	Date	Academic Year	Topic
1	Guest Lecture	29-04-2021	20-21	Idea Generation
2	Guest Lecture	05-05-2021	20-21	Design Thinking by an expert
3	Guest Lecture	28-05-2021	20-21	Prototype development by an innovation expert
4	Guest Lecture	11-06-2021	20-21	Exposure Visit to an Incubation Center

INSTITUTION'S INNOVATION COUNCIL
(Ministry of HRD Initiative)

IIMT
COLLEGE OF ENGINEERING
Greater Noida
— Aim For Excellence —

MoE IIMT ENGINEERING INNOVATION CELL & DEPARTMENT OF ME
is Jointly Organizing
GUEST LECTURE
on
"IDEA GENERATION"
29th April 2021 | 11:30 AM - 12:30 PM
Speaker

ER. ROHIT PAHWA
(Design Engineer, AV Light Automotive Ltd.)
YouTube
#LIVE
Coordinator:
Mr. Krishna Kumar Karothiya
Assistant Professor, Department of ME
PATRONS:
DR. SANJAY PACHAURI President, IIC IIMT
DR. GAURAV SINHA Director, IIMT College of Engineering Gr.Noida
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The Department of ME organized a Guest Lecture on "Idea Generation" by Er. Rohit Pahwa on 29th April 2021. He started his lecture with few examples of the design software so that students could develop new methods to design the products. He said that it could be possible to enhance the quality of the products by adding few more features in the system or product which would result in new idea generation. He explained reverse engineering for idea generation, which is sometimes called back engineering. It is a process which helps to create software, machines, aircraft, architectural structures, and some other products with design information.

Design thinking by an expert

The Department of ME organized a Guest Lecture on "Design Thinking by Experts" on 5th May 2021 by Mr. Jaipal Singh. He shared his words with students and faculty members on the design concept of the product. He started his lecture on product design cycle. He discussed conceptualizing, market survey, the scope of the product, competition in the market, sketching, use of software like pro-e, solid works, or other software according to the demand of the product, then gave the analysis of the product on the practical variable. He also said more about solid works software, its background, company name, and various companies which are using this software. He also discussed its application and properties of different commands. Mr. Jaipal explained different design modules on solid works.

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MoE IIMT ENGINEERING INNOVATION CELL & DEPARTMENT OF ME is Jointly Organizing

GUEST LECTURE
 on
"DESIGN THINKING BY AN EXPERT"
 Speaker


 Mr. Jaipal Singh
 (CAD Consultant at Mapping Skills Gr. Noida)
 5th May 2021 | 10:30 AM to 11:30 AM

YouTube
 LIVE

Co-ordinator:
 Mr. Krishna Kumar Karothiya
 Assistant Professor, Department of ME

PATRONS:

Dr. Sanjay Pachauri
 President,
 IIC IIMT

Dr. Gaurav Sinha
 Director,
 IIMT College of Engineering

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Prototype development by an expert

The Department of ME organized a Guest Lecture on "Prototype development by an expert" on 28th May 2021 by Dr. Anuj Kumar Sharma. Dr. Sharma started his session by briefing about all products; such as currency sanitizing machine, covid -19 assistant robot "KRISHNA", different parts of the multi-channel ventilator, multi-purpose sanitizing machine, automation lab, robotics lab etc. developed by the center for advanced studies AKTU, Lucknow. Very interestingly, he multiplied the interest of the students by sharing that all innovations happened around the world due to the emergency needs of human beings as war manual tank, poison gas, guns, steel etc. He also quoted "Need is the mother of all invention". Dr. Anuj talked about milk spilling control unit, solar panel cleaning machine, cipher generator. He also mentioned that the best success stories often begin with failure. After that Dr. Anuj discussed the right product selection importance and how to generate an idea based on customer feedback.

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Live Session on
Prototype development
by an innovation expert

YouTube
 LIVE


 Guest: Dr. Anuj Kumar Sharma
 Coordinator of Mechatronics
 Associate Dean, R&D and Industrial Consultancy
 Abdul Kalam Technical University Lucknow

Friday
28th MAY 2021
 12:00 PM - 1:00 PM

Coordinator:
 Mr. Krishna Kumar Karothiya
 Assistant Professor
 Dept. of Mechanical Engineering

PATRONS:

Dr. Sanjay Pachauri
 President,
 IIC IIMT

Dr. Gaurav Sinha
 Director,
 IIMT College of Engineering

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Exposure Visit to an Incubation Centre :

The Department of ME organized a Guest Lecture on "Exposure Visit to an Incubation Center" by Mr. Parag S Kavthekar on 11th June 2021. He started his lecture giving few examples of the automotive sector in which students could learn new technology about the automotive sector which is in the trend. Mr. Parag S Kavthekar focused on generating new innovative ideas in the students and faculty about the incubation center. He also focused on how to inculcate interest towards innovation through the incubation center in the student's mind. He also mentioned the skill development of students through the incubation center. He intended the audience towards entrepreneurship through the incubation center. He also focused on the various new technologies in the field of automobiles and the importance of electronics in the area of the automobile.

INSTITUTION'S INNOVATION COUNCIL
(Ministry of Education Initiative)

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MoE IIMT ENGINEERING INNOVATION CELL & DEPARTMENT OF ME is Jointly Organizing

Live Session on
EXPOSURE VISIT TO AN
INCUBATION CENTER.

YouTube
LIVE

Friday
11th June 2021
03:30 PM - 4:30 PM

Guest : Mr PARAG KAVTHEKAR
Training Head
BOSCH Training Centre

PATRONS :

Coordinator:
Dr. Peeyush Vats
HOD, ME Department

Dr. Sanjay Pachauri
President,
IIC, IIMT

Dr. Gaurav Sinha
Director,
IIMT College of Engineering

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(HOD Dept. of Mechanical Engineering)

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(ME-3A)