



**MECHATROMA**  
A Quarterly Publication of Department of Mechanical Engineering  
Volume VI, Issue 7, April - June, 2022



## From Editor's Desk

Dear Readers,

We are pleased to share few of the exciting news of the Department of Mechanical Engineering of IIMT College of Engineering over the past few months.

At the Department of Mechanical Engineering, we believe in helping our students in gaining comprehensive knowledge and understanding of the subjects. We aim to impart basic knowledge of engineering science, computers and computational techniques including communication skill which will equip them with the ability to solve engineering problems.

After completion of B. Tech degree in Mechanical Engineering, the students will be eligible to perform the duties of quality control engineer, marketing professional, production engineer, design engineer, service engineer, automobile engineer, HVAC engineer and Researchers. They also have opportunity to continue with the further education and pursue the degree for M. Tech and PhD.

Prof. (Dr.) Ganesh Shirsath

Chief Editor & HOD  
Dept. of Mechanical Engineering  
Acting HOD, ME



### Quote for the Quarter

*“Casting the world, Forging the campus, Shaping the universe, Welding the rest of all branches, Bcoz, We are the Men, We are the machine, and we are Mechanical Engineers.”*



## “Entrepreneurship for Mechanical Engineers”

On 6th May 2022, of IIMT College of Engineering ED Cell and the Department of Mechanical Engineering organized a guest lecture on “Entrepreneurship for Mechanical Engineers”. Hon’ble guest Dr. B P Singh gave an excellent input to the students on how to convert the idea into a start-up. He apprised the students about various government-schemes launched for the benefit of the entrepreneurs. He elaborated on different fields like supply chain management, solar installation, CNC machines, consultancy in the field of mechanical engineering, machine design for chemical industry, e-waste management and recycling. The speaker also explained the nuances of funding process for start-up and other schemes.

**ED Cell**  
IIMT COLLEGE OF ENGINEERING

**IIMT**  
COLLEGE OF ENGINEERING  
Greater Noida  
— Aim For Excellence —

IIMT COLLEGE OF ENGINEERING IS ORGANISING

— Workshop on —

# “Entrepreneurship for Mechanical Engineers”

Scan for Registration

**Dr. B.P. Singh** IEDS (A. Director)  
MSME Development Institute, Okhla Phase-III, New Delhi  
Govt. of India

**Coordinator**  
**Mr. Krishna Kumar**  
Assistant Professor  
Department of ME

Date - 06<sup>th</sup> May 2022 | Time : 02:00 PM onwards

**PATRONS**

<b>Dr. S.S. Tyagi</b> Director IIMT College of Engineering	<b>Dr. S.K. Gupta</b> Chairman ED Cell IIMT College of Engineering	<b>Dr. Ganesh Shirsath</b> HOD Department of ME
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## CAD CAM Design Competition

The Department of Mechanical Engineering organized a CAD CAM Design Competition on Swalakhya-Azadi ka Amrit Mahotsava 22. This event was organized by ME Department. 33 students participated in this event. Among the contestants, Pankaj Kumar Rathour made the drawing in minimum time with full accuracy and was selected as winner whereas Gaurav Kumar Sinha was declared as runner up. They were awarded the prize money and certificates.



**Guest lecture  
On  
“Mentoring Session on Startup Life Cycle”.**

MoE, of IIMT College of Engineering Innovation Cell and The Department of ME organized a guest lecture on “**Mentoring Session on Start-up Life Cycle**”. Dr. Sandip Patil, IITK alumni, gave excellent input to our students on how to convert the idea in to a start-up. He delivered motivational talk to the students on how to start business while doing research. He said good start-ups can be started with good research team. He himself being an entrepreneur, spoke about his company product masks, oxygen concentrators, nano-fibres for cancer diagnosis, optical sensors, air filtration and other uses.

**INSTITUTION'S INNOVATION COUNCIL**  
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Workshop on

**“Mentoring Session on Startup Life Cycle”**

Scan for Registration

**Dr. Sandip Patil** (IITK alumnus)  
Director & CEO, E-Spin Nanotech Pvt. Ltd.

**Coordinator**  
Mr. Krishna Kumar  
Assistant Professor  
Department of ME

Date - 03<sup>rd</sup> May 2022 | Time : 11:00 AM onwards

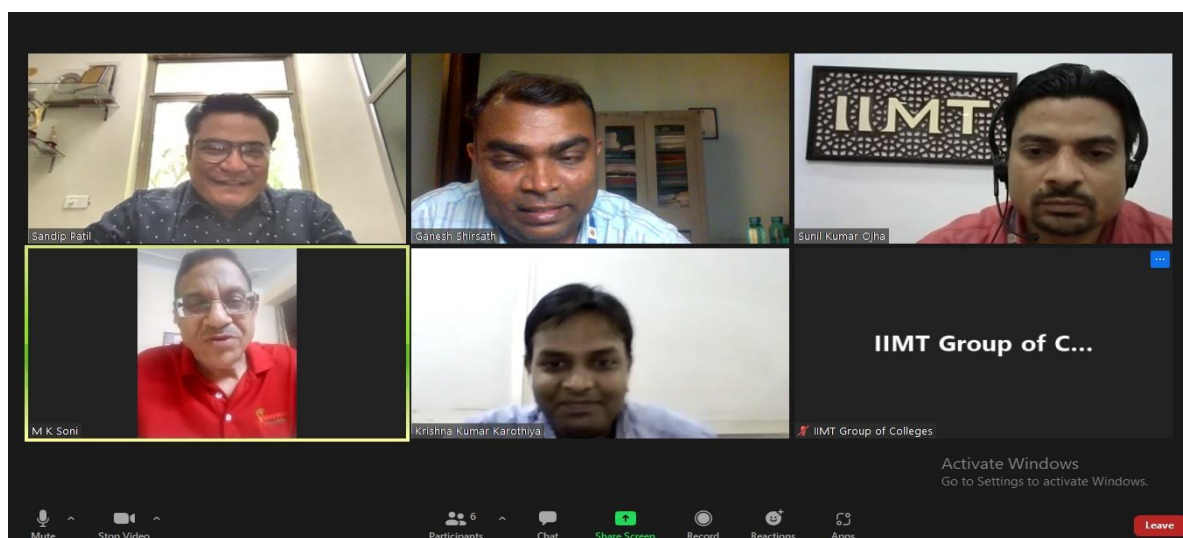
**PATRONS**

**Dr. S.S. Tyagi**  
Director  
IIMT College of Engineering

**Dr. Sanjay Pachauri**  
IIC, President  
IIMT College of Engineering

**Dr. Ganesh Shirsath**  
HOD  
Department of ME

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## Guest Lecture On "Prototype/Process Design & Development Prototyping"

On 04th May 2022, MoE, IIMT Innovation Cell and the Department of ME organized a guest lecture on “**Prototype/Process Design & Development Prototyping**”. Prof (Dr.) **Leeladhar Nagdeve, Professor at NIT Delhi** delivered a talk on development of nano-finishing techniques on sculptured bio-material surface. He also talked about bio material uses and how to design bio material surface and make prototype development. He gave insight to the students and faculty members on classification of Nano processes. He also discussed about different joints in human body and how to make and implant artificial joint in the body. He gave inputs on different materials being used for implantation in human body. He explained as to why nano processing and finishing is required for implantation-products to cater for the wear resistance , fatigue resistance , corrosion resistance and aesthetic appearance. He gave informative knowledge about design, development and prototyping, and also motivated the students to design, development and research work.

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## "Prototype/Process Design & Development Prototyping"

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**Coordinator**  
Mr. Krishna Kumar  
Assistant Professor  
Department of ME

**Dr. Leeladhar Nagdeve**  
Prof. NIT Delhi

Date - 04<sup>th</sup> May 2022 | Time : 04:15 PM onwards

**PATRONS**

<b>Dr. S.S. Tyagi</b> Director IIMT College of Engineering	<b>Dr. Sanjay Pachauri</b> IIC, President IIMT College of Engineering	<b>Dr. Ganesh Shirsath</b> HOD Department of ME
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### Cont'd...

- Recent demographics indicate that about five million people in the world are diseased by arthritis. Osteoarthritis which is **wear and tear** and most common in Knee joint/Hip joint.
- This painful inflammation is often cured by an artificial knee/Hip joint replacement .
- Surface roughness of the implant has a significant effect on the force at the connection and reaction of tissues in the joint area and **behaviour of germs in bone tissue** (Mathia et al., 2011).
- Wear by abrasion** is one of the main causes for **failures of the implants**

(a) **Total Hip Replacement**

(b) **Knee Replacement**

Fig: Diseased Knee. Ref: Health care centre

Fig: Knee Replacement, Courtesy: AESCULAP Implant System

[www.soactivesofast.com](http://www.soactivesofast.com)

Zoom

Prototype/Process Design & Development - Prototyping

## Quiz Competition

### Organized by Department of Mechanical Engineering

On 20 Apr 2022, Department of ME organized a Quiz Competition on current affairs and GK. 33 students participated in the event. Questions related to Sports, Science , GK and Economics were asked in the competition.



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Newsletter

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## Research paper

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S.No.	Title of Paper	Name of Author(s)	Name of Journal	Volume, Issue, Page Numbers	Month and Year of Publication
1.	Performance of an air gap membrane distillation system and enhancement using a low cost surface modification	Dr.Ganesh Shirsath	International Journal of Green Energy	published	June 2022

### Industrial visit: Mother Dairy

On 24 June 2022, Department of Mechanical Engineering organized an Industrial Visit at Mother Dairy. Students observed the production process, equipments and interacted with the company Engineers. They learnt how different milk products are being processed.



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**Students at Mother Diary**



**Volume VI, Issue-7**

**Newsletter**

**Best Faculty : June 2022.  
Prof. (Dr.) Ganesh Shirsath**

- **Chief editor :**  
**Dr. Ganesh B. Shirsath, Associate  
Professor and HOD(ME)**
- **Faculty member:**
  - 1. Mr. Krishna Kumar karothiya**
  - 2. Mr. Suraj Bhan**

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- 1. Aman Kumar Jha**
- 2. Amir Ali**

## **Best Faculty Award: June 2022**

IIMT College of Engineering started an initiative to felicitate the best faculty of the month. The initiative turned out to be a good platform to develop the skills of faculty members in their respective research areas. This initiative motivated the faculty members to contribute effectively in teaching learning process by leveraging technology.