



*A newsletter of*

***MANUFACTURING OUTLOOK***

***PUBLISHED BY MECHANICAL ENGINEERING  
DEPARTMENT***

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***EDITORS: MR. SOURAV SAHA, MR.  
AKARSAN MUKHERJEE, MR. SK SABIR***

## **Vision of the Department**

To be a top ten recognized Department of Mechanical Engineering in the Eastern Region providing excellent academic ambience producing Mechanical Engineers capable of serving Nation and the World.

## **Mission of the Department**

**DM1:** To provide the most effective teaching learning ambience with emphasis on student centric learning

**DM2:** To remain constantly aligned with relevant industries to prepare job-ready graduates through offering training in line with Industry 4.0 and obtain collaborative projects and consultancy from industry

**DM3:** To provide excellent training opportunities for faculty to remain constantly updated in their knowledge and skills.

**DM4:** To encourage innovation and entrepreneurship by setting incubation center

## **Program Educational Objectives (PEO)**

**PEO1** Students are expected to pursue higher studies, conduct research, entrepreneurship and pursue a successful career in the field of Mechanical Engineering and Allied fields.

**PEO2** Students are expected to possess skills and core-competency to solve complex analytical and design problems in Mechanical and Allied industries.

**PEO3** Students are expected to be proficient in multi-skills and work in collaborative projects with inter-disciplinary departments to enhance job areas.

**PEO4** Students are expected to develop analytical and critical thinking capability, time management, ethical attitude, concern for social problems needed for responsible professionals' engineers.

**PEO5** Students are expected to improve professional career by lifelong learning through persistent education of technical and decision-making skills.

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# From HOD Desk



**DR. PRITI SHUKLA**  
**PROFESSOR & HOD OF ME DEPARTMENT**

Department of Mechanical Engineering at DIT is one of the best departments in Kolkata. Started in 2012, we persistently seek and adopt innovative techniques to improve the quality of education and strongly believe in outcome-based education philosophy. We are affiliated to prestigious Maulana Abul Kalam Azad University of Technology with an intake of 60 seats at undergraduate level. We believe in creating value for our stake holders. In addition to enriched academics, we impart industry demanded skills from time to time. Skill development program in our department is one of the most unique activities. Through this program, we impart latest skills that are needed in industry. Technical, professional, social, interpersonal aspects of student personality are some of the key attributes that are honed at our department

Excellent curricular, co-curricular, extra-curricular and extension activities are our performance indicators. It is because of these reasons our mechanical department is applied for National Board of Accreditation (NBA). The journey of student learning from fundamentals to advances in mechanical engineering at our department is accompanied by several value-added activities. Practical attributes such as problem solving, design & development, investigation of complex problems, usage of contemporary (modern) tools, excellent communication, team and individual work, finance & project management, societal aspects and ethics are imparted through different activities at department. We always work in mission mode to deliver best to our students in such a manner that 100% placement is a by-product of our relentless efforts.

# From Editorial



**Mr. Sourav Saha:**

All the creative energies that came on to this platform in the form of faculty experts & students are finally presenting a replica of their enthusiastic hard work through this extravaganza that has come out so organically.



**Mr. Akarshan Mukherjee:**

All the events conducted throughout the year where perfectly planned & executed & the overwhelming response it received said it all! I hope the readers of the newsletter have a wonderful reading experience & wish this year's edition too receives your love.



**Mr. Sk Sabir:**

This work is a result of the various phases from planning to data collection to segregation to organization to proofreading to designing.

# Students Editorial & Design



SANJU DEY (SECOND YEAR)



SANDIP HATI (THIRD YEAR)



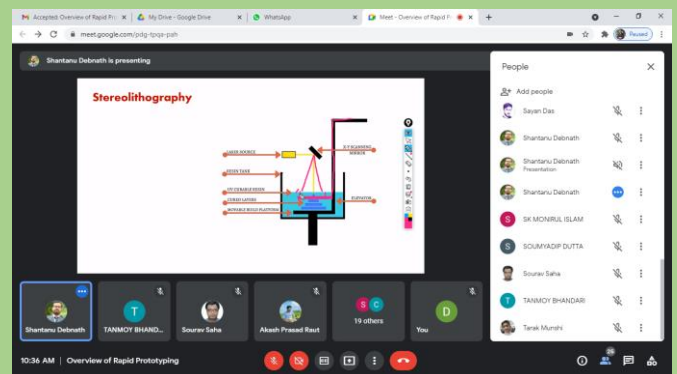
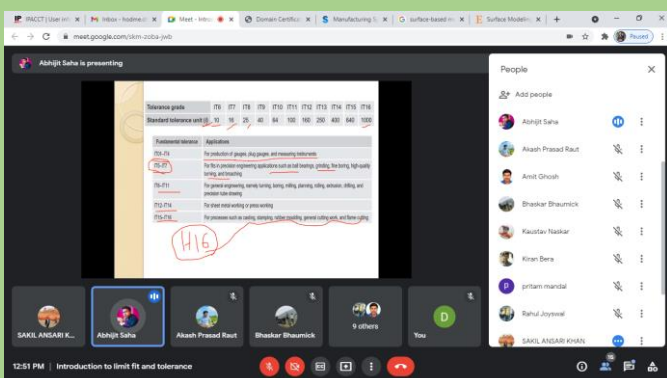
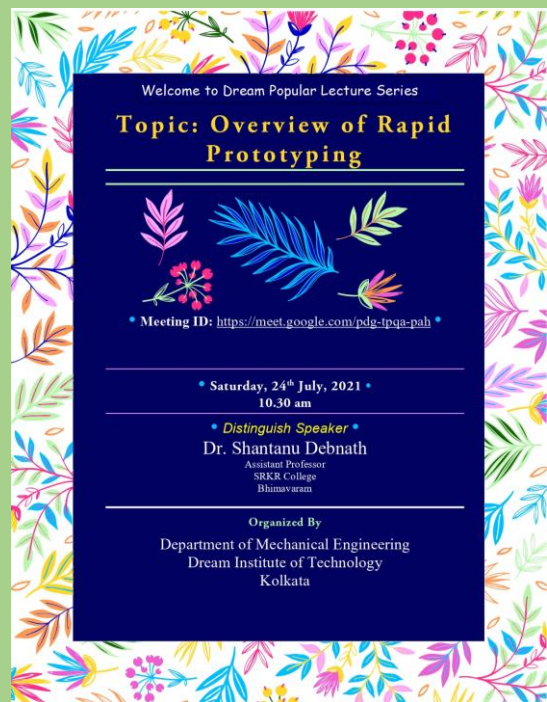
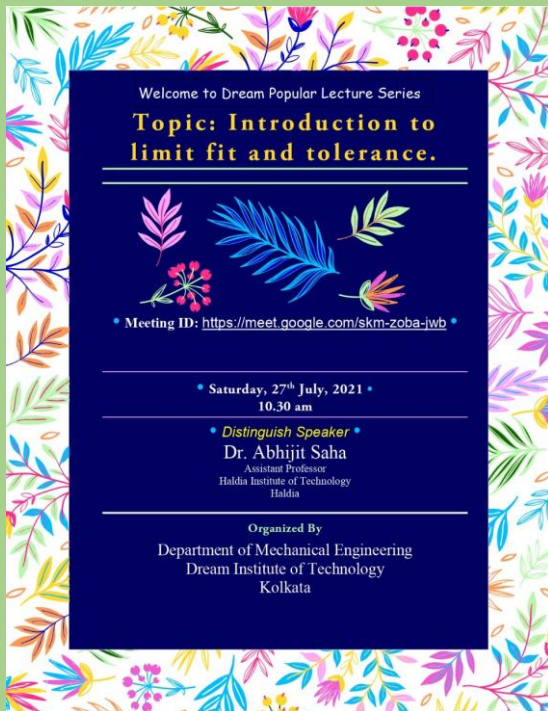
SAHIL DOPTARY (THIRD  
YEAR)

# Departmental Activity

## DREAM POPULAR LECTURE SERIES

### TOPIC 1: INTRODUCTION TO LIMIT, FIT AND TOLERANCE

### TOPIC 2: OVERVIEW OF RAPID PROTOTYPING



# Faculty Achievements

## FACULTY DEVELOPMENT PROGRAM (JULY 2021- JUN 2022)

Faculty	Topics	Host By	Duration
Milan Kumar Maity	Mechanics of machining	NPTEL-SWAYAM	Jan-Mar
Akarsan Mukherjee	Mechanics of machining	NPTEL-SWAYAM	Jan-Mar
SK Sabir	"Research Trends in Design and Control of Electric Vehicles"	College of Engineering Perumon	17/01/2022 to 21/01/2022
Mofijul Islam	Principles of casting technology	NPTEL-SWAYAM	Jan-Mar
SK Sabir	Avenues for Energy Conservation in Thermal Power Plants	Anna University.	07/02/2022 to 11/02/2022
Mofijul Islam	Marvels of Indian Metallurgy from the bygone era	KS Institute of Technology, Bangalore	16/3/2022
Akarsan Mukherjee	Inculcating Universal Human Values in Technical Education	AICTE	9.5.22- 13.5.22
Sourav Saha	IPR Mnagement	NIT Mizoram	27.06.22- 01.07.22
Abhijit Bhowmik	IPR Mnagement	NIT Mizoram	27.06.22- 01.07.22
Akarsan Mukherjee	Manufacturing Processes_Casting & Joining	NPTEL SWAYAM	JULY- AUGUST 2022
	UHV II	AICTE	8.8.22- 12.8.22

# Advanced lab setup for additive manufacturing



CNC Machine



3D Printer

**CNC turning** is a manufacturing process that involves holding bars of material in a chuck and rotating them while feeding a tool to the piece to remove material until the desired shape is achieved. As the desired shape is achieved through the removal of material, it is also known as subtraction machining.

All of the work can be completed from one side if the CNC turning center has only one turret, but some turning centers have a main spindle and sub-spindle for even faster operation. With this configuration, the main spindle partially machines the workpiece, which is then moved to the sub-spindle to complete the job on the other side of the part. The speed of CNC turning operations makes it an ideal process for large production runs with short lead times.

**CNC milling** is a machine process which produces custom-designed parts or components by progressively removing material from the workpiece using rotating multi-point cutting tools and computerized controls. These systems usually have three linear degrees of freedom. They can move freely around the X, Y, and Z axes while the workpiece remains stationary. This limited dimensional operation reduces the speed of operations, making milling more suitable for prototyping and smaller production runs.

**3D Printing** 3D printing or additive manufacturing is the construction of a three-dimensional object from a CAD model or a digital 3D model. It can be done in a variety of processes in which material is deposited, joined or solidified under computer control, with material being added together (such as plastics, liquids or powder grains being fused), typically layer by layer.



# Students Project



Advancement of  
Abrasive Jet  
Machining



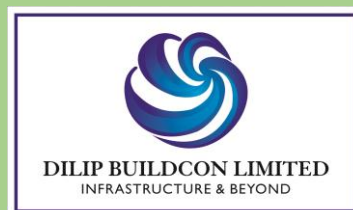
Automated drain  
/gutter cleaner



360-degree  
flexible drilling  
machine



# Our Recruiters





### **CORPORATE OFFICE**

187/1, Block - J, New Alipore  
Kolkata: 700053 West Bengal, India.  
Phone No: 988 393 6088

### **OUR CAMPUS**

Thakurpukur, Samali, B.H Road  
Kolkata - 700104, West Bengal, India.  
Phone No: 033 24980376