

Department of Mechanical Engineering . (J.N Government Engg. College Sundernagar) organized Series of Webinar /expert talk on 22/05/2021 for faculty, staff and students of Mechanical Engineering Department.

The talk was delivered by Dr Sushant Negi (Assistant Professor, Mechanical Engineering N.I.T Silchar, and Assam. He is having Doctorate in Mechanical Engg. From N.I.T Hamirpur with more than 15 research publications in international journals of repute to his credit. His area of research is Additive Manufacturing (3D Printing) & CAD-CAM.

In morning session he delivered talk on” **Advance Manufacturing and Non-Conventional Machining**”. In this session he talked about various developments in Non-Conventional machining like Laser machining, EDM, Abrasive jet machining and rapid prototyping. His talk included the probable and upcoming research areas in this field.

In the evening session he covered “3 –D Printing”. It covered Additive manufacturing and he narrated how industry uses data computer-aided-design (CAD) software or 3D object scanners to direct hardware to deposit material, layer upon layer, in precise geometric shapes. His talk also differentiated how additive manufacturing adds material to create an object. By contrast, when you create an object by traditional means, it is often necessary to remove material through milling, machining, carving, shaping or other means. He talked application areas of 3-D printing including Human Implants.

Prof Rajeev Khanduja,Head Mechnaical Engg. (J.N Government Engg. College Sundernagar) told that these webinar are highly beneficial for students and provide them exposure to cutting edge research of academic institutes of excellence and also provide know how of requirements of the industry.

The webinar was attended by all the faculty members and staff of Mechanical Engg. Department and was well appreciated by all the audiences.

**Screen shots of Morning Session(22/05/2021):**

Dr. Sushant Negi is presenting

### Classification of Manufacturing Processes

Subtractive Process	Additive Process	Formative Process
<ul style="list-style-type: none"><li>Removal of material</li></ul>	<ul style="list-style-type: none"><li>Adding of material</li></ul>	<ul style="list-style-type: none"><li>Mechanical forces are applied</li></ul>
<ul style="list-style-type: none"><li>CNC (milling, drilling...)</li><li>USM</li><li>AJM</li><li>EBM</li><li>ECM</li><li>EDM</li><li>LBM</li></ul>	<ul style="list-style-type: none"><li>AM processes (SLA, FDM, SLS)</li></ul>	<ul style="list-style-type: none"><li>Bending, Forging and Plastic injection molding</li></ul>

Note: Advanced manufacturing process (including advanced casting, joining, machining and finishing methods)

Dr. Sushant Negi

rajiv Kumar

Dr. Sushant Negi

Sourabh Dhiman 6009

### ME 4th Semester Online Class

(67)

Good morning sir

shubham Me 55 08:54  
good mrng sir

Abhinav Thakur ME02 08:54  
Good morning sir

SANJEEV KUMAR ME 53 08:54  
Good morning sir

Anurag Verma ME 015 08:54  
Good morning sir

Rishav Kaushal ME 42 08:54  
Good morning sir

Send a message to everyone

ME 4th Semester Online Class

Microphone, Video, Screen Share, Check

Dr. Sushant Negi is presenting

Dr. Sushant Negi is presenting

An expert Talk on  
**Advanced Manufacturing and Non Conventional Machining Process**  
by  
  
Dr. Sushant Negi  
Assistant Prof., MED, NIT Sitchar  
Email: sushant.n@medb.nitw.ac.in  
at  
**JNGEC, Sundernagar, HP, India**  
5/22/2021  
JNGEC Sundernagar, HP, India

029

Khushal Me 29

ME 4th Semester Online Class x

(66)

Good morning sir

shubham Me 55 08:54  
good mngn sir

Abhinav Thakur ME02 08:54  
Good morning sir

SANJEEV KUMAR ME 53 08:54  
Good morning sir

Anurag Verma ME 015 08:54  
Good morning sir

Rishav Kaushal ME 42 08:54  
Good morning sir

Send a message to everyone

ME 4th Semester Online Class ^

Microphone, Video, Screen Share, Checkmark icons

Dr. Sushant Negi is presenting

Screen shot of Evening Session(22/05/2021):

The screenshot shows a Google Meet interface during a presentation. The browser address bar displays `meet.google.com/ksr-ftaj-ita?pli=1&authuser=0`. The top bar indicates the meeting is paused and shows the time as 2:08 PM. The presenter is identified as Dr. Sushant Negi.

The presentation slide is titled "An expert Talk on 3D Printing" and features three images: a bicycle with a 3D-printed frame, three 3D-printed skulls, and a 3D printer printing a part. The slide credits Dr. Sushant Negi, Assistant Prof., MED, NIT Silchar, with the email `sushant@mech.nits.ac.in`. The slide footer includes the date 5/22/2021 and the text "JNGEC Sundernagar, nr, india".

The participant list on the right includes:

- Dr. Sushant N...
- Dr. Sushant N...
- AMIT KUMAR (ID: 2001)
- jatin thakur (ID: 226)
- Ritik (ID: 275)
- Rishik Bakshi (ID: 244)
- Ketan Kapil (ID: 230)
- Dharmender ... (ID: 2004)
- Chirag Sharma (ID: 216)


The bottom of the screen shows the Windows taskbar with various application icons and the system tray displaying the time 2:08 PM on 5/22/2021.

Dr. Sushant Negi is presenting

### 3D printing Takes us Closer to the Nature

#### Characteristics of Nature: Non-Rotary Locomotion

Mathematically simple horizontal surface  $z=0$  is more expensive to produce than a cylindrical surface which is mathematically more complex  $x^2 + y^2 - r^2 = 0$



The cheapest machine is Lathe then shaper and milling etc.

JNGEC, Sundernagar, HP, India

Mukesh has left the meeting

- Dr. Sushant Negi
- 2001 AMIT KUMAR
- 226 jatin thakur
- 244 Rishik Bakshi

### Mechanical Engineering 6th Sem...

(45)

Add people

IN CALL

- MEchanical 3rd Ye... (You)
- 228 Kamlesh Saini
- 228 Kartik Singh Kanwar
- 233 Mohit Kumar
- 203 Abhishek Bharti
- 205 Abhishek Mahajan

Mechanical Engineering 6th Semester

Meeting controls: Mute, Video Off, Screen Share, End Meeting

Turn on captions | Dr. Sushant Negi is presenting