

Faculty of Engineering & Technology "IMPACT OF NANOMATERIALS ON THE TRIBOLOGICAL PROPERTIES OF LUBRICATING OIL" Type of event: GUEST LECTURE Date: 26/03/2021 Time: 2:30 P.M.-3:30 P.M. Venue: Google Meet, Online mode

Organizer: Department of Mechanical Engineering, FEAT-SGT University.

<u>Objective</u>: The main objective of the webinar "Impact of nano materials on the tribological properties of lubricating oil" is to upgrade the knowledge of students towards the tribological characteristics of nano particles which helps to promote research-oriented projects in this field.

<u>About the Speaker/Guest:</u> Dr. Sumit Chaudhary, Assistant Professor, Department of Mechanical Engineering, Thapar Institue of Engineering & Technology, Patiala., having 8+ Years of teaching and research experience. He has a great research profile in this field and a number of research papers in SCI Journals.

Audience: 42 students and faculty members from FEAT-SGT University.

Brief Report:

At SGT University, Faculty of Engineering and Technology, we organized a webinar on "Impact of nano materials on the tribological properties of lubricating oil". An expert talk was delivered on the tribological properties of lubricating oil, nano particles and its formation, blending techniques, importance of nano particles, Rheological behavior of nano particles especially in IC engines by **Dr. Sumit Chaudhary** (Assistant Professor, Department of Mechanical Engineering) Thapar Institue of Engineering & Technology, Patiala on 26-03-2021.

In the lecture the following points were discussed:

• Lubricating Oils

- Need of Nano particles.
- Preparation and characterization of Nanolubricant
- Nano Fluid preparation
- Tribological Investigation of nano particles.
- Rheological study.
- Friction losses in IC engine.
- Future Challenges for India as in research area of Nano technology.
- About the Stribeck curve.
- New targets for India in field of Nano Technology.
- Discussed about ball disk Tribometer.
- Importance of extreme pressure analysis.

Besides this, the magnetic stirrers, ultra sonicator, were also discussed. The instruments used for preparation of nano particles. These are used in coatings as filler materials, opacifiers and semiconductors. With relevance to the coating industries, nano particles have shown significant potential for much stronger, tougher and durable coatings. The various methods used in measuring the stability of nano fluid are also been discussed.



"Webinar conducted on Impact of nanomaterials on the tribological properties of lubricating oil:"

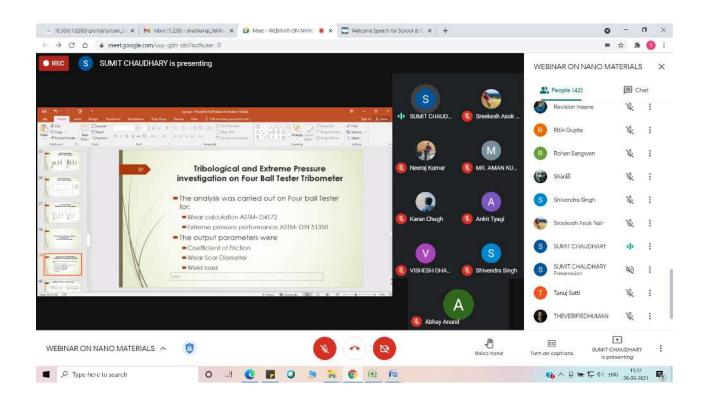
Learning Outcome: It was very informative journey towards from fundamental to descriptive knowledge of nano particles & tribological properties of lubricating oil. After attending this webinar, we understood the about the nano particles, its behavior, its importance in research and the importance of the production of nanoparticles with specific properties.

Shortcomings: (i) Internet Connectivity

Webinar on "Impact of nano materials on the tribological properties of lubricating oil"

DATE 26/03/2021

Attendance Data:Attached Timings 2:30 P.M – 3:30 P.M.



Attendance of students (2nd Year)

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1	HARSH	191303001
	SAINI	
2	SREEKESH	191303002
	ASOK NAIR	171000002
3	HARSH	191303004
	CHHIKARA	171303004
4	RAHUL	191303005
	KUMAR	171505005
5	CHIRAG	191303006
	YADAV	191505000
6	KUNAL	191303007
7	ASHISH	191303008
8	ANKIT	101202000
	YADAV	191303009
9	KARAN	191303010
10	SHARAN	101202011
	VERMA	191303011
11	KUNAL	191303012
	SINGH	191303012
12	ABHAY	191303013
	ANAND	191505015
13	ROHAN	191303014
	SANGWAN	191505014
14	NITIN MAAN	191303017
15	ADITYA	101202019
	SOLANKI	191303018
16	VIDIT	101202020
	DAGAR	191303020
17	RITIK	101202021
	GUPTA	191303021
18	ABHISHEK	101202025
	KUMAR	191303025

	SHARMA	
19	INDERJEET	191303026
	KUMAR	191505020

Attendance of students (3rd Year)

S. No.	Registration No.	Name of the Student
1	181303001	Ankur Lamba
2	181303003	Vishesh
3	181303004	Himanshu
4	181303005	Arun
5	181303006	Gaurav
6	181303009	Neeraj Kumar
7	181303014	Manav Nishal
8	181303015	Abhishek
9	181303016	Tanuj Satti
10	181303017	Rakesh
11	181303019	Himanshu Solanki
12	181303023	Aman Kumar
13	181303024	Marut Kumar Mishra
14	191303016	Rufat Singh Gulati
15	191303019	Kuldeep Raghav
16	191303024	Anurag Sharma

Faculty Attendance

S.no	Name of Faculty Member Joined
1	DR.Ajay
2	DR.Amit
3	DR.Atul
4	Mr.Dinesh Deshwal
5	Mr.Monika Deshwal
6	Ms.Shubhangi Chourasia
7	Mr.Aman thapak
8	Mr.Ankit Tyagi
9	Mr.Asad Habeeb
10	Mr.Shivendra Singh

Reem

