

Sandip Institute of Technology and Research Centre An Autonomous Institute

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SANDIP
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Department of Mechanical Engineering Academic Year 2023-24

Report on "Expert Lecture on Nanofuels Potential fuel for next-generation combustion devices"

1. Event Title: "Expert Lecture on Nanofuels Potential fuel for next-generation combustion devices "

2. Event Date: 13th December 2023

3. Event Conduction Duration: 12:20 PM to 1:10 PM

4. Event Venue: Online Platform, Google meet

5. Event Resource Person Details: Dr. Ankur Miglani
Department of Mechanical Engineering,
IIT Indore

6. Name of Event Coordinator: Dr. Chandrmani Yadav

7. Event Objectives & Outcomes

Objectives of Activity:

To understand requirement and advantages of nanoparticles in conventional liquid fuels.

Outcomes of Activity:

Participants understood the benefits of nanoparticles in conventional liquid fuels.

8. Description of Event:

Mechanical Engineering Department, SITRC has organized an expert lecture for the students of Mechanical Engineering on 13th December 2023. The resource person was Dr. Ankur Miglani working as an Associate Professor in Department of Mechanical Engineering at IIT Indore, India. The resource person briefed the introduction of nanoparticles, merits and demerits in conventional liquid fuels. So, this lecture helped students to understand the addition of nanoparticles in conventional liquid fuels to how it helps in enhancing droplet burn rate. The vote of thanks was given by Dr. Chandrmani Yadav.

The event was attended by about **128** students along with HoD Prof. (Dr.) Sachin G. Ghalme, and departmental faculty members.

Event Photos:

Why add nanoparticles to conventional liquid fuels?

Comparative evaluation of potential energy vectors

High-reactivity of nanoparticles

Energetic metal particles

- Abundantly available in earth's crust
- Volumetric energy densities superior to biomass, coal, diesel, gasoline and CNG

Sheetal Udgave has left the meeting

12:23 PM | gwn-touw-puc

Participants: Deepak Kumar, icmmseir SITRC, M.V. Reddy, ravikant singh, Dr. Sachin Ghalme, Ankur Miglani, Aditya Kale, 12 others, Yogesh Agrawal

Resource person delivered speech on nanoparticles in Liquid fuels

How important can a droplet be: A representative example?

Spike: 9 – 12 nm
Round envelope: 65 – 140 nm

How effective is social distancing?

How long droplets stay in air?

How far should we stand?

0.1µm, 0.5µm

Droplets containing the virus can be as small as 1 micron

Human hair: 60 - 100 microns


The CDC asks to maintain 6 feet distance to prevent the spread of COVID-19


12:26 PM | gwn-touw-puc

Participants: Deepak Kumar, icmmseir SITRC, M.V. Reddy, ravikant singh, Dr. Sachin Ghalme, Ankur Miglani, Aditya Kale, 12 others, Yogesh Agrawal

Resource person delivered speech on fuel droplets


Dr. Chandrmani Yadav
Event Coordinator


Dr. S.G. Ghalme
HOD
Dept. of Mech. Engg.


Prof. (Dr) M. M. Patil
Principal,
SITRC

