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GUEST LECTURE
ORGANIZED BY
DEPARTMENT OF CHEMISTRY
(2023-2024)

GUEST LECTURE ON "NANOTECHNOLOGY FOR ADVANCED ENGINEERING APPLICATIONS"

Department of Chemistry ,MVJCE organized a Guest lecture on 23.03.2024 for second semester Chemistry cycle students at Dr. M.V Jayaraman Auditorium at 10:45 A.M.

Date of the Event	23.03.2024
Title of the Event	Nanotechnology For Advanced Engineering Applications
Guest Speaker	Dr. S.T Aruna Senior Principal Scientist CSIR -NAL Bangalore
Organized by (Department name)	Chemistry Department
Name of Department event coordinators	Dr.Preethi.G (Assistant Professor and HOD) Mrs. Swati Lal (Assistant Professor)

Dr. S.T Aruna (Senior Principal Scientist CSIR -NAL Bangalore) presented a guest lecture on "Nanotechnology For Advanced Engineering Applications" on 23 rd March 2024 at Dr. M.V Jayaraman Auditorium . The lecture was focused on introducing first year students with the term Nanomaterials its , its synthesis and its diverse applications in various fields of electronics , medical sciences and automotive industry etc. She explained the students about the origin of nanomaterial synthesis , usefulness and widespread applications of Nanomaterials . She gave a detailed insight about the synthesis of Nanomaterials , the two approaches that are broadly used in the synthesis of Nanomaterials i.e Bottom to up and Top to bottom approach .

Nanotechnology, is the change of matter at the atomic and molecular scale, holds immense potential for advanced engineering applications across various fields. Here are some notable areas where nanotechnology is making significant works in following areas

1. **Materials Science**: Nanotechnology enables the development of advanced materials with unique properties
2. **Electronics**: Nanoscale materials and devices are revolutionizing electronics by enabling the creation of smaller, faster, and more efficient components.
3. **Medicine**: Nanotechnology has transformative potential in medicine, with applications such as targeted drug delivery, imaging, and diagnostics.
4. **Sensors and Detectors**: Nanotechnology enables the development of highly sensitive and selective sensors for detecting gases, chemicals, and biological agents. Nanoscale sensors offer advantages such as rapid response times, low power consumption, and miniaturization.

   The highlight of the lecture was explanation on synthesis and applications of nanomaterial.

   The guest lecture ended with a question and answer session students asked questions which was answered by guest speaker . Around 350 students participated in the lecture .

Outcome of the event

The students at the end of the session understood the concept and importance of Nanomaterials and its applications in advanced engineering .

Fig.1 .On the Chair Dr. S.T Aruna (Guest Speaker) and Dr, Preethi.G (Head of the Department , Chemistry , MVJCE)

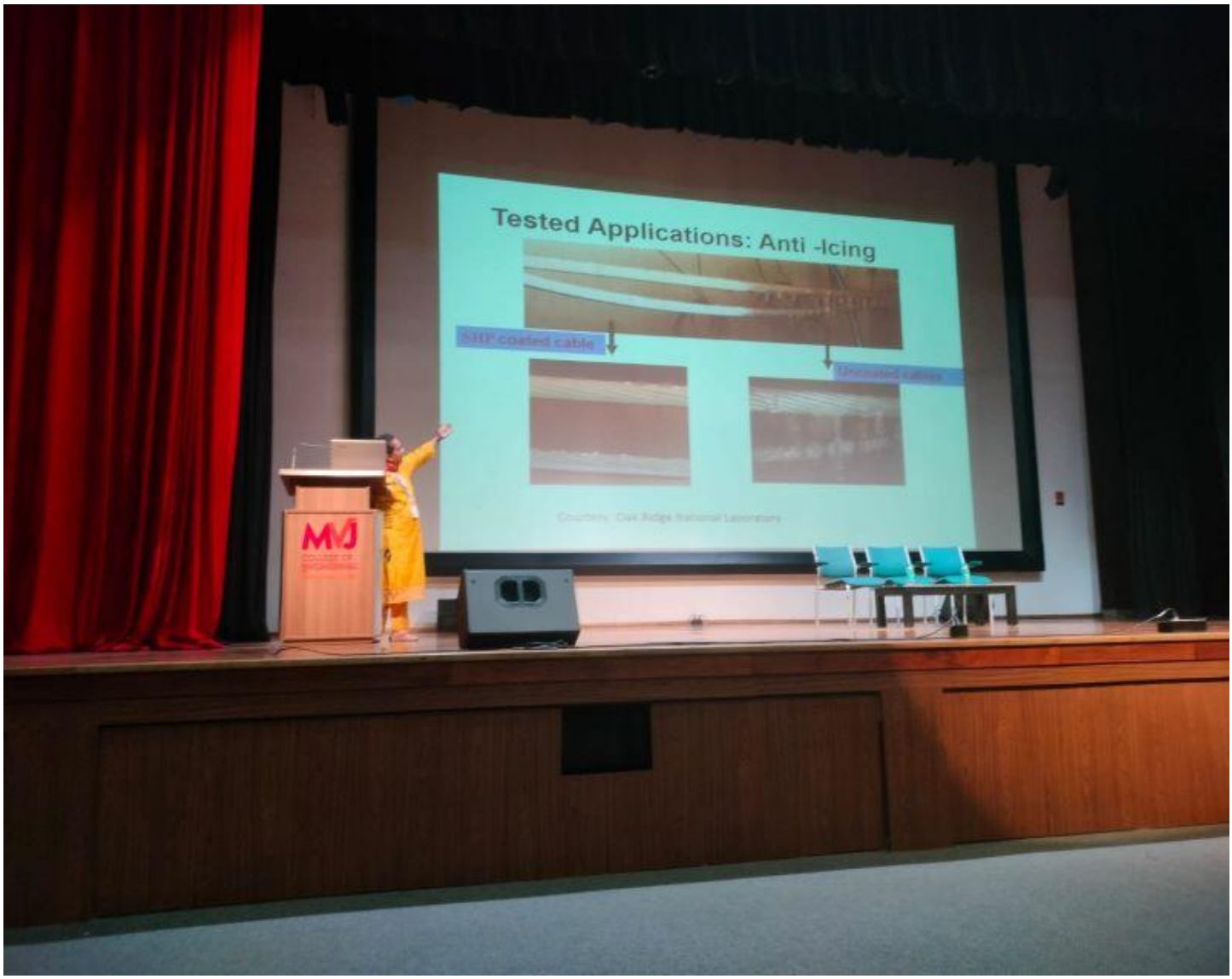

Fig.2 .On the stage Dr. S.T Aruna (Guest Speaker) explaining about the applications of Nanomaterials