



Mahiravani, Trimbak Road, Nashik – 422 213

Website : <http://www.sandipuniversity.edu.in> | Email : [info@sandipuniversity.edu.in](mailto:info@sandipuniversity.edu.in)

Ph: (02594) 222 541 Fax: (02594) 222 555

**SCHOOL OF SCIENCE**  
**Department of Chemistry**

**Event Activity Report**

<b>Academic Year</b>	<b>: 2023-24</b>
<b>Department /School Name</b>	<b>: Department of Chemistry (SOS)</b>
<b>Event Title</b>	<b>: Two days Workshop on Analytical Instrumentation 12<sup>th</sup> and 13<sup>th</sup> March 2024</b>
<b>Event Date</b>	<b>: 12<sup>th</sup> and 13<sup>th</sup> March 2024</b>
<b>Time</b>	<b>: 10.00 AM to 5.00PM</b>
<b>Duration in Days</b>	<b>: Two Days</b>
<b>Mode of Conduction</b>	<b>: Offline</b>
<b>Convener</b>	<b>: Dr. Nissar A. Reshi (Associate Dean, SOS)</b>
<b>Organizing Chair</b>	<b>: Dr. Leena Patil (HOD, Department of Chemistry)</b>
<b>Event Coordinators</b>	<b>: Dr. Sneha N. Tambat (Assist. Prof. Department of chemistry)</b> <b>Dr. Parag P. Chavan (Assist. Prof. Department of chemistry)</b> <b>Ms. Savita Patil (Assist Prof. Department of chemistry)</b>
<b>Participants</b>	<b>: 120 Students of B.Sc and M.Sc. Students from all the colleges in Nashik and its periphery area</b>



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**Objective:**

The two-day workshop on analytical instrumentation was held on 12<sup>th</sup> and 13<sup>th</sup> March 2024 at Department of Chemistry Sandip University Nashik. It aimed to provide participants with comprehensive insights into the latest advancements, techniques, and applications in analytical instrumentation. The workshop facilitated an interactive platform for experts, researchers, and industry professionals to exchange knowledge and experiences, fostering innovation and collaboration in this critical field.

**Day 1:**

**Session 1: Introduction to Analytical Instrumentation** The workshop commenced with an guest lecture on “cutting edge Instrumentation in Pharmaceutical Industry” overview of analytical instrumentation, covering its significance in various industries such as pharmaceuticals, environmental monitoring, and food safety. Participants gained insights into the fundamental principles and methodologies underpinning analytical instrumentation techniques.

**Session 2: Spectroscopic Techniques** Experts delved into spectroscopic techniques, including UV-Vis spectroscopy, infrared spectroscopy, and flame-photometry. Through presentations and practical demonstrations, attendees learned about the principles, instrumentation, and applications of these techniques in chemical analysis and material characterization.

**Session 3: Chromatographic Techniques** Chromatographic techniques, such as gas chromatography (GC) and high-performance liquid chromatography (HPLC), were explored in depth during this session. Participants acquired knowledge of chromatographic theory, instrument operation, sample preparation, and data analysis, enhancing their proficiency in separation science.

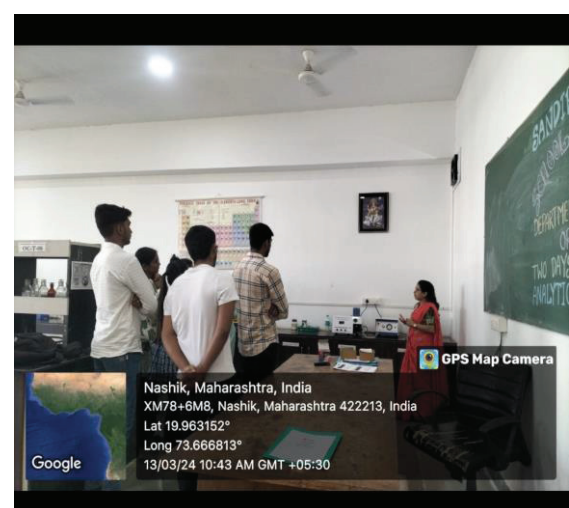
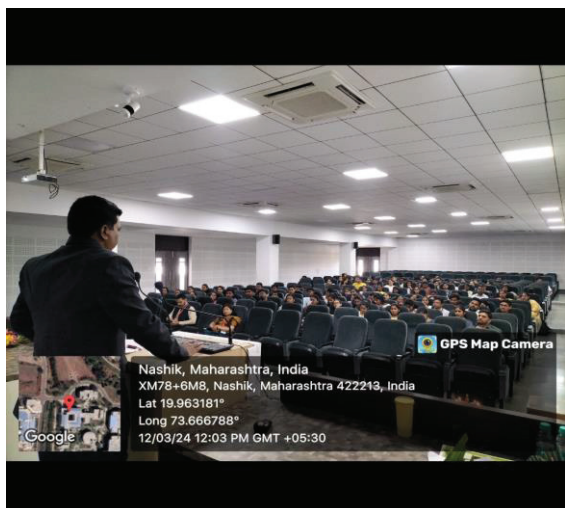
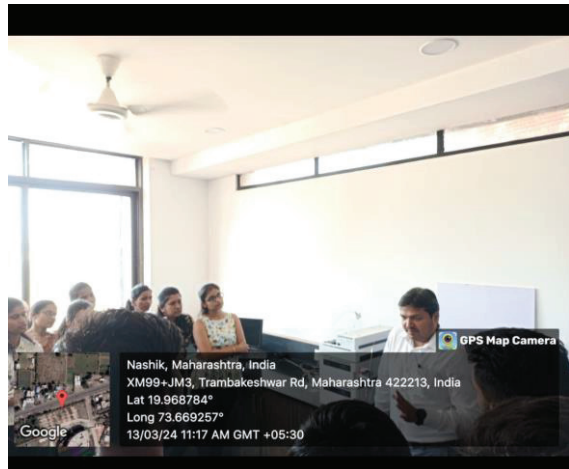
**Day 2:**

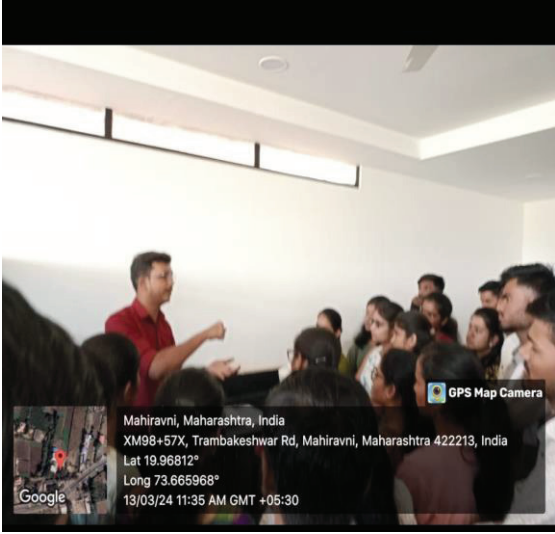
**Session 5: Electrochemical and sonication Techniques** Electrochemical techniques, including Conductometry, Potentiometry, Ultrasonication, Melting point Apparatus, Muffle Furnace. Participants gained insights into the principles of electrochemical analysis, electrode materials, instrumentation, Sonication and Cavitation and applications in fields such as metal detection and nanoparticle synthesis.

**Session 6: Biological instrumentation:** Biological instrumentation techniques such as Ultra centrifuge, Microtome Calorimeter, Gel Electrophoresis, PCR, Gel Doc, Autoclave applications in fields such as biomedical diagnostics.

**Conclusion:** The two-day workshop on analytical instrumentation provided a comprehensive platform for participants to enhance their understanding of diverse analytical techniques, instrumentation, and applications. Through engaging presentations, practical demonstrations, and interactive discussions, attendees gained valuable insights into the latest advancements and best practices in analytical instrumentation, fostering professional development and collaboration in the field.

**Glimpse of the workshop:**







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Dr. Sneha Tambat  
Event Coordinator  
Department of Chemistry

Dr. Leena Patil  
HOD,  
Department of Chemistry

Dr. Nissar A. Reshi  
Associate Dean  
School of Science