

Gondia Education Society's

**SETH NARSINGDAS MOR COLLEGE OF ARTS & COMMERCE AND
SMT. GODAVARIDEVI SARAF SCIENCE COLLEGE, TUMSAR,**

DEPARTMENT OF CHEMISTRY

National Science Outreach Programme on Nanoscience and Nanotechnology
"Nano Jatha-2026"

• **Introduction:**

CSIR-National Environmental Engineering Research Institute (CSIR-NEERI), Nagpur, in collaboration with Centre for Nano and Soft Matter Sciences (CeNS), Bengaluru (DST), will organize Nano Jatha-2026, a Science Outreach Programme on Nanoscience and Nanotechnology, on 28 July 2026 in the NEERI Auditorium, Nagpur. Nano Jatha is a national science outreach programme aimed at creating awareness about nanoscience and nanotechnology among students. The programme will include expert lectures, interactive sessions, video presentations, quizzes, and live demonstrations using specialized nanoscience experimental kits. "Nano Jatha-2026" is organized as a prominent pre-event leading up to the flagship Bengaluru India Nano conference, aimed at expanding scientific boundaries and building a foundation for future technology. In this programme, undergraduate and postgraduate students, particularly those studying Chemistry, Physics, Nanoscience, or Nanotechnology, are encouraged to participate from RTMNU, Nagpur.

• **Objectives:**

The visit was organized to provide students with comprehensive, immersive exposure to the world of nanoscale science. At the nanoscale, matter exhibits unique quantum and surface properties that entirely differ from its bulk behavior. The programme's mission was to bridge the gap between theoretical textbook paradigms and tangible laboratory applications. Cultivate analytical reasoning, scientific curiosity, and practical skills among undergraduate and postgraduate science cohorts (specifically Chemistry, Physics, and Nanoscience disciplines). Expose students to multi-disciplinary applications spanning electronics, clean energy, medicine, environmental sustainability, and advanced materials. A total of 17 Students with 01 faculty member of S.N. Mor College of Arts & Commerce and Smt. G.D. Saraf Science College, Tumsar, participated in this National Science Outreach Programme on Nanoscience and Nanotechnology "Nano Jatha-2026".

• **Comprehensive Timeline and Detailed Proceedings:**

Phase I: Registration and Formal Inauguration (09:30 AM to 10:30 AM): Students reached the NEERI Auditorium, completed their verification protocols, and were seated for the proceedings. Welcome address given by Dr. S. Venkata Mohan, Director of CSIR-NEERI, delivered the



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opening remarks. He emphasized the critical role that institutional research laboratories play in fostering national scientific growth and solving pressing environmental challenges. Dr. Goutam Ghosh, Ramanujan Faculty at CeNS-DST, Bengaluru, addressed the audience. He elaborated on how soft matter and nanomaterials are changing modern industry dynamics and opening up novel career pathways for young researchers. Programme overview by Mr. Prakash Kumbhare, Scientist-F at CSIR-NEERI, outlined the core blueprint of Nano Jatha-2026, mapping out how the day's events would unfold, which was followed by a formal vote of thanks.

Phase II: Visual Presentation & Expert Lectures (11:00 AM to 01:30 PM): Visual Presentation on Nanotechnology. A specialized screening visually decoded the behavior of atoms and molecules, demonstrating how scaling down materials alters their optical, electrical, and mechanical properties. A technical talk presented by Dr. Goutam Ghosh, this session explored advanced concepts in nano-composites and structural physics, offering deep insights into ongoing national research projects. An interactive science quiz jointly hosted by the outreach teams from CeNS and CSIR-NEERI; this rapid-fire quiz tested the scientific retention of students and encouraged healthy competition. Following the second technical talk by Mr. Prakash Kumbhare, this lecture focused on environmental nanotechnology, highlighting green synthesis methods and pollution remediation techniques developed at the nanoscale. (Lunch break (01:30 PM – 02:30 PM): Provided a structured break for interaction between visiting college students and senior research scientists).

Phase III: Hands-On Experimental Modules and Practical Demonstrations (02:30 PM – 04:30 PM): Nanoscience-Related Experiments. Operating in coordinated groups, students worked directly with specialized experimental kits provided by CeNS and CSIR-NEERI teams. They performed live reactions, observed nano-surface behaviors, and analyzed changes in material properties. This second round of practical execution allowed students to dive deeper into specialized applications—such as clean energy prototypes and nano-catalysis setups—guided step-by-step by active scientists.

Phase IV: Valedictory and Credentials (05:00 PM – 05:30 PM): Valedictory Session & Certificate Distribution. Presided over by Dr. S. Venkata Mohan, the concluding ceremony summarized the day's achievements. Official certificates of participation were distributed to the student delegates, formally recognizing their active involvement in the outreach initiative.

- **Key Academic Learnings and Takeaways:**

Experiential Synergy: Moving from traditional chalkboard learning to handling physical apparatus and specialized nanotechnology kits enhanced clarity regarding complex scientific principles. Direct interactions with senior scientists from premier central government research bodies (CSIR-NEERI and CeNS) broadened students' perspectives on career planning, higher education, and research methodologies. Team-based problem-solving during the quiz and group experiments promoted communication, analytical sharpness, and confidence in scientific exploration.

- **Conclusion:**



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The comprehensive educational visit to Nano Jatha-2026 at CSIR-NEERI, Nagpur, proved to be an invaluable learning milestone for the students of S. N. Mor College. By seamlessly blending high-level academic lectures with direct, hands-on experimentation, the event successfully kindled scientific curiosity and deepened students' appreciation of how cutting-edge research shapes a sustainable future.

• **List of Students Participating:**

Sr. No	Name of Students	Class
1	Astha Prakash Patle	B.Sc. SEM-V
2	Suhani Anil Uchibagale	B.Sc. SEM-V
3	Sonali Sushil Patle	B.Sc. SEM-V
4	Gayatri Rajkumar Gurao	B.Sc. SEM-V
5	Khushali Subhash Uprikar	B.Sc. SEM-V
6	Shakshi Khemraj Nandhrdhane	B.Sc. SEM-V
7	Tannu Dnyaneshwar Selokar	B.Sc. SEM-V
8	Anjali Narendra Chachire	B.Sc. SEM-V
9	Muskan Shafi Sheikh	B.Sc. SEM-V
10	Nidhi Munnalal Katre	B.Sc. SEM-V
11	Madhu Surajlal Kaware	B.Sc. SEM-V
12	Sanskriti Ajay Dhawde	B.Sc. SEM-V
13	Payal Prabhudas Bisane	B.Sc. SEM-V
14	Renuka Anil Chaudhar	B.Sc. SEM-V
15	Sweta Aasaram Raut	B.Sc. SEM-V
16	Supriya Manoj Katre	B.Sc. SEM-V
17	Saliha Ahmad Hussain Agwan	B.Sc. SEM-V

• **Photo Gallery:**


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