

Inauguration of Nanomaterials Research Laboratory in Department of Physics Centre of Excellence Govt. College Sanjauli, Shimla – 06 Funded by DBT Star College Scheme

The Nanomaterials Research Laboratory was established in the Department of Physics at the Centre of Excellence, Government College Sanjauli, under the DBT Star College Scheme in 2024. This was inaugurated by Sh. Rakesh Kanwar, Secretary of Education, and Dr. Mahaveer Singh, Professor in the Department of Physics at HPU, during the International Conference hosted by the college.

This initiative aims to foster research interest among students, as research is not a part of their standard curriculum.

Under the guidance of Dr. Kirti Singha, B.Sc. IIIrd-year students successfully synthesized soft ferrite nanomaterials. The synthesized samples were sent to Shoolini University and NIT Hamirpur for XRD and FeSEM characterization.

Building on this achievement, ten students presented posters based on their synthesis work at the International Conference held at the Centre of Excellence, Government College Sanjauli, on November 19-20, 2024.











Outcomes of the initiatives at the Nanomaterials Research Laboratory:

1. Research Skills Development:

- B.Sc. IIIrd-year students successfully synthesized soft ferrite nanomaterials, gaining hands-on experience in advanced material synthesis techniques.
- 2. Characterization and Collaboration:
 - Synthesized samples were sent for XRD and FeSEM characterization to prestigious institutions like Shoolini University and NIT Hamirpur, fostering inter-institutional collaboration.
- 3. Student Participation in International Conference:
 - Ten students presented posters at the International Conference held at the Centre of Excellence, Government College Sanjauli, showcasing their research work on an international platform.

4. Enhanced Awareness and Knowledge Dissemination:

• Approximately 150-200 students attended demonstrations on nanomaterial synthesis, enhancing their understanding of nanotechnology and its applications.

5. Workshop Participation:

• Forty students from B.Sc. IIIrd and IInd years participated in a workshop at Shoolini University, gaining practical exposure to the fabrication of nanomaterials.

6. Motivation and Research Affinity:

• These activities inspired a research culture among undergraduate students, motivating them to explore fields beyond their curriculum.

7. Skill Enhancement for Career Opportunities:

• The hands-on training and exposure prepared students for future academic pursuits or careers in research, materials science, and nanotechnology.

These outcomes collectively contribute to creating a robust foundation for researchoriented learning at the undergraduate level.

Report Compiled & submitted By: Dr. Kirti Singha, Department of Physics