Field Trip to NATIONAL INSTITUTE OF TECHNOLOGY

TADEPALLIGUDEM, ANDHRA PRADESH

Date & Time: 17th March 2024, One-Day Visit

Location: National Institute of Technology (NIT), Tadepalligudem, A.P

Purpose: The purpose of this field trip was to provide students with exposure to advanced research facilities, laboratories, and academic programs at NIT Tadepalligudem. The visit aimed to enhance their understanding of modern experimental techniques, ongoing research, and career opportunities in physics.

Participants: Five lecturers accompanied the students on this visit. A total of 18 students participated, including 11 from I M.Sc (Physics) and 7 from II M.Sc (Physics). Names of participants are attached in last page

Itinerary: *(Brief schedule of activities during the trip)*

- Departure from the college in the morning
- Arrival at NIT Tadepalligudem and welcome session
- Visit to physics laboratories and research centers
- Interaction with faculty members and researchers
- Exploration of library and computational facilities
- Concluding session and return journey

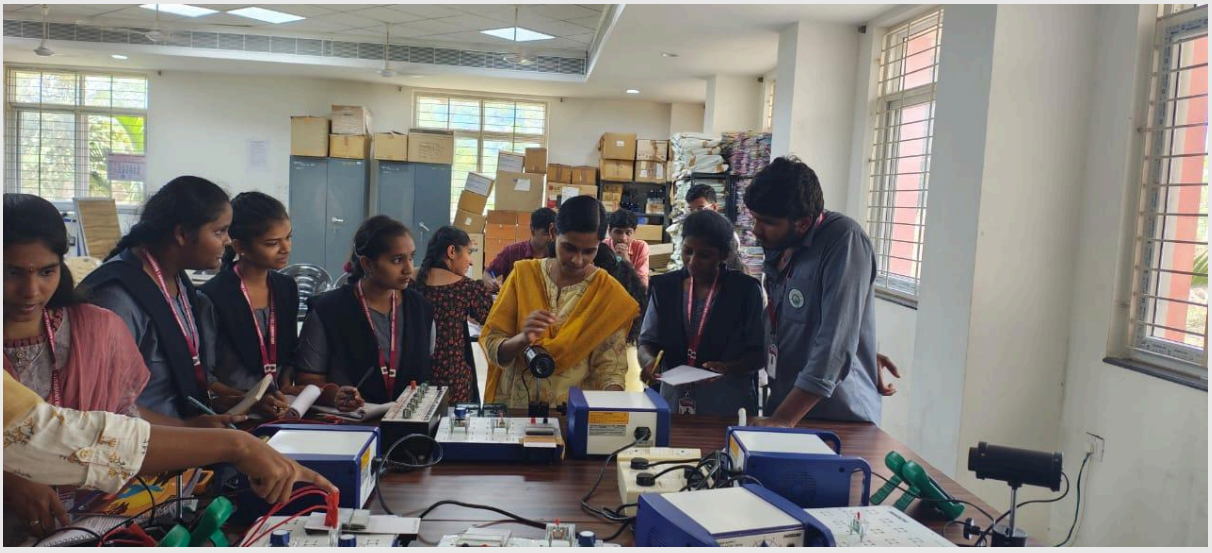
Observations: During the visit, students explored state-of-the-art laboratories, including the materials science lab, nanotechnology lab, and optics lab. The institute is well-equipped with advanced research facilities such as high-precision spectrometers, superconductivity testing setups, and computational physics laboratories. Students also had the opportunity to interact with faculty members who provided insights into ongoing research projects and higher education opportunities at NIT. The visit to the library, which houses an extensive collection of scientific journals and reference books, was particularly beneficial for academic enrichment.

Challenges Faced: The trip was well-organized, with minimal challenges. However, limited time for lab visits and discussions made it difficult to explore every facility in depth.

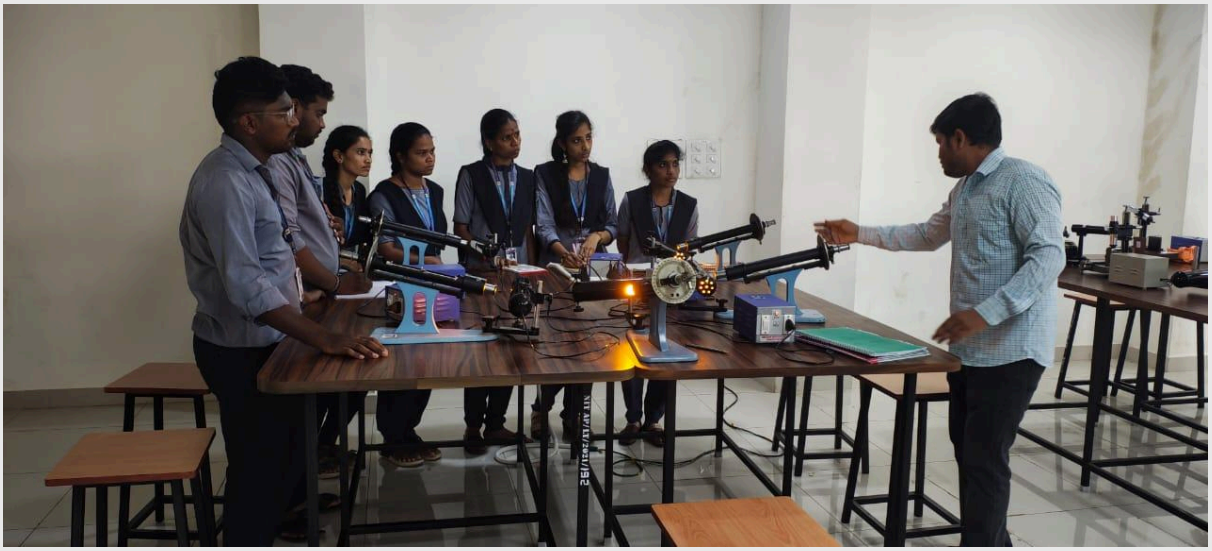
Conclusion: The field trip to NIT Tadepalligudem was an enriching experience for students, providing them with valuable exposure to advanced research and experimental techniques. The visit motivated them to explore further studies and research opportunities in physics.

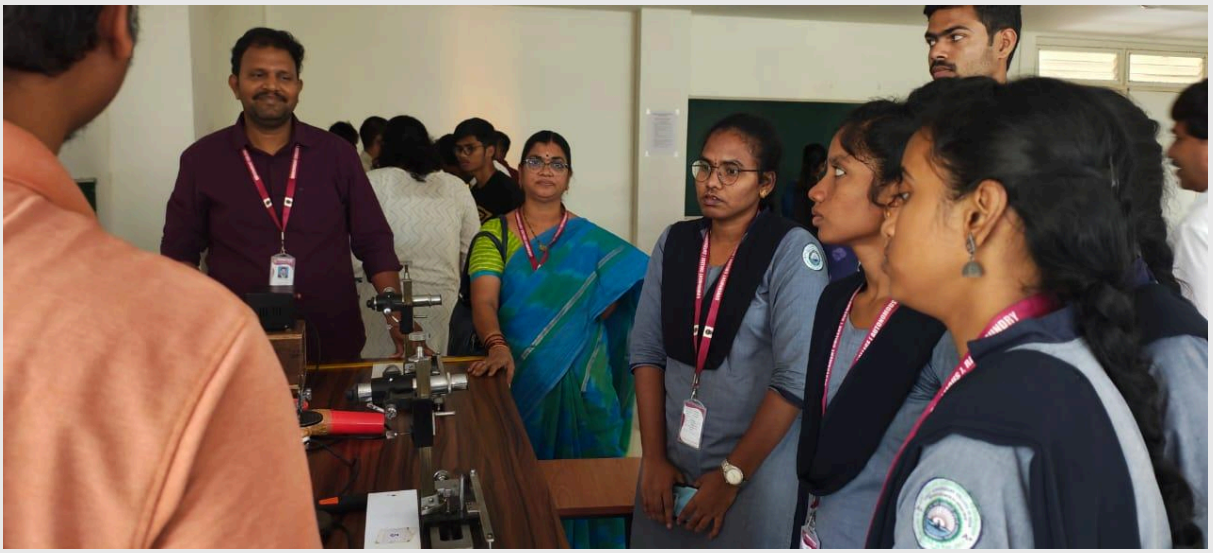
Recommendations:

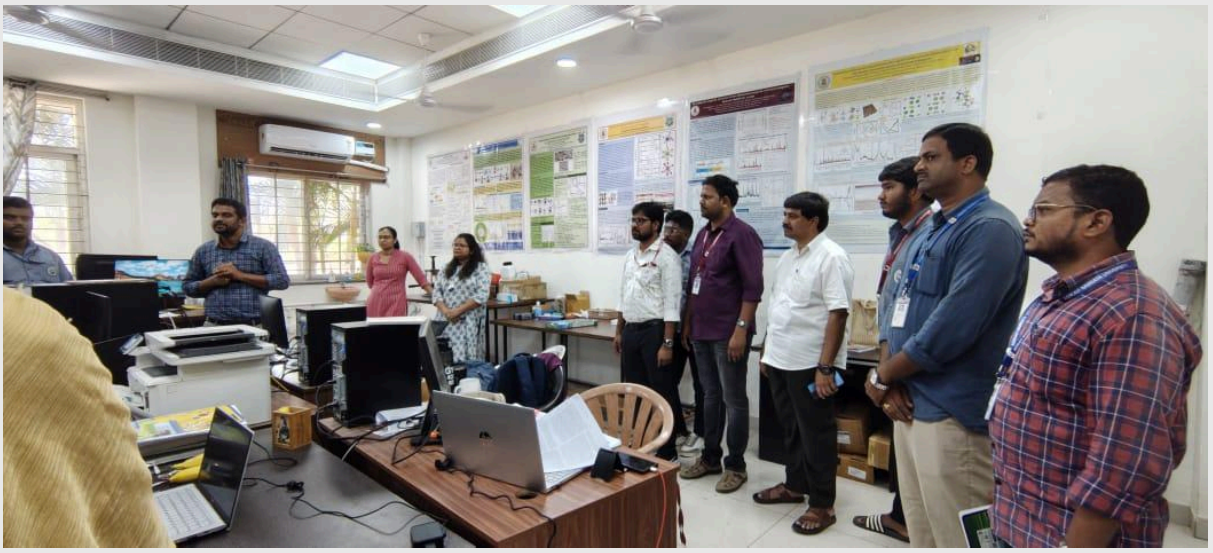
- Future visits can be extended to multiple days for deeper exploration.
- More interaction sessions with researchers could be arranged.
- Hands-on experience with laboratory equipment should be included.



Stefen's Constant experimentation

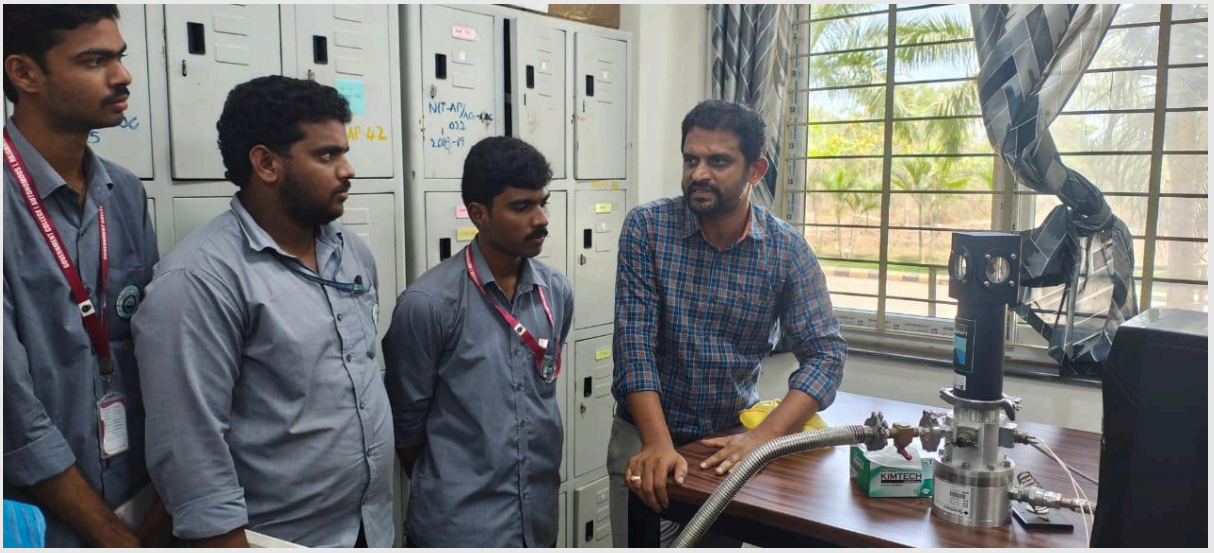




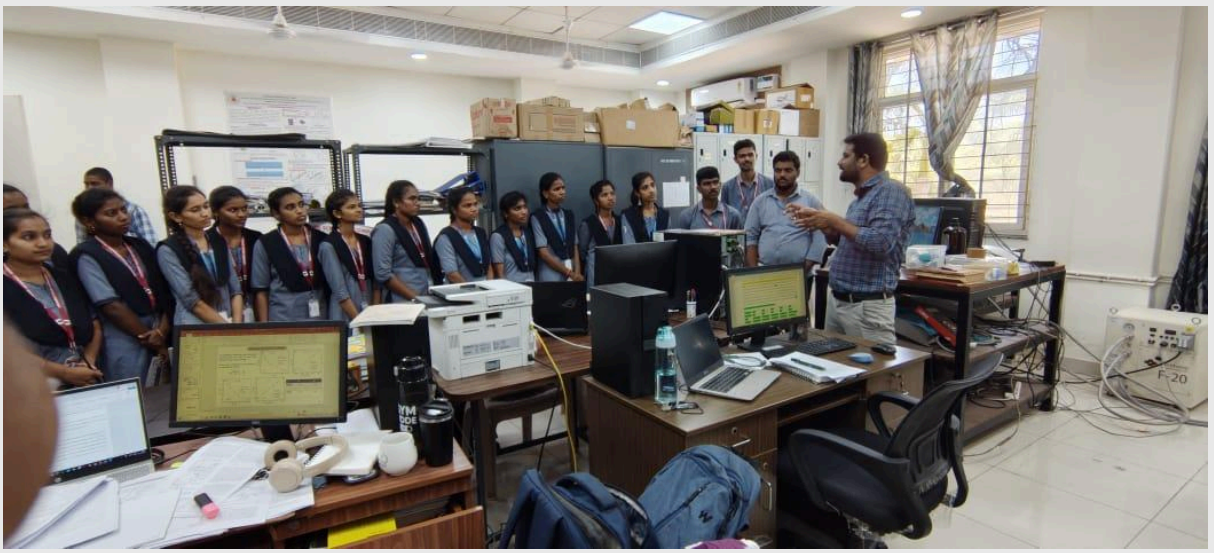


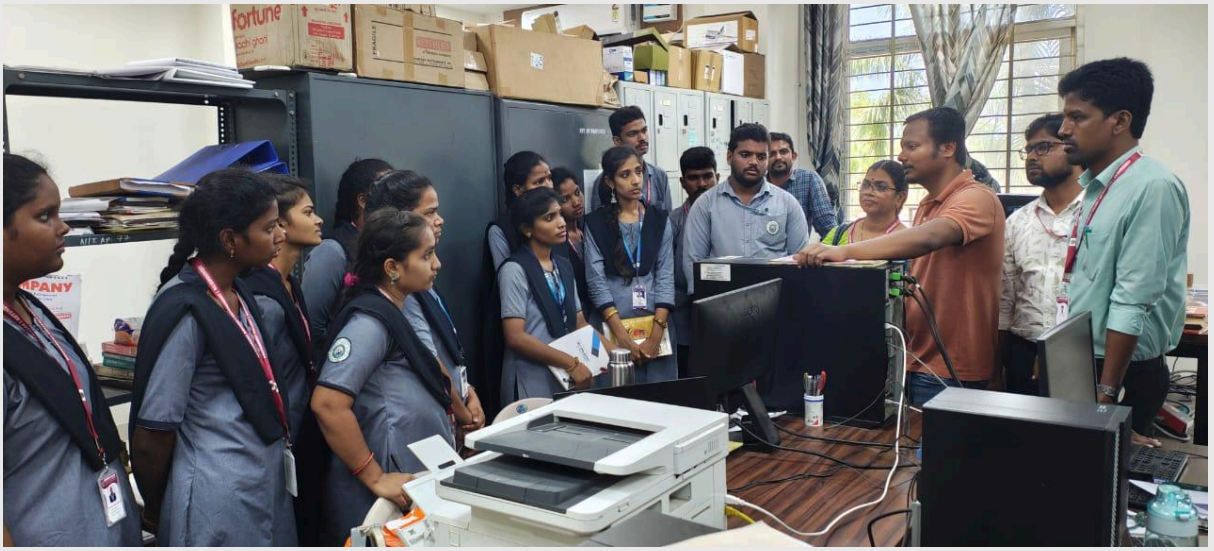
Research Lab visit

Research work Explaining by PhD Scholar

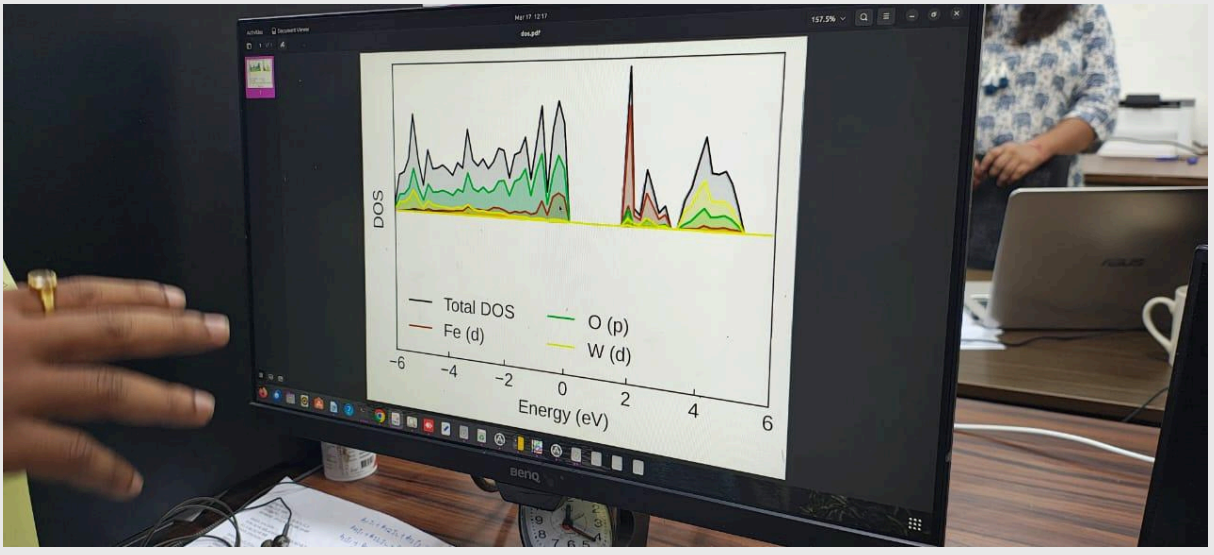


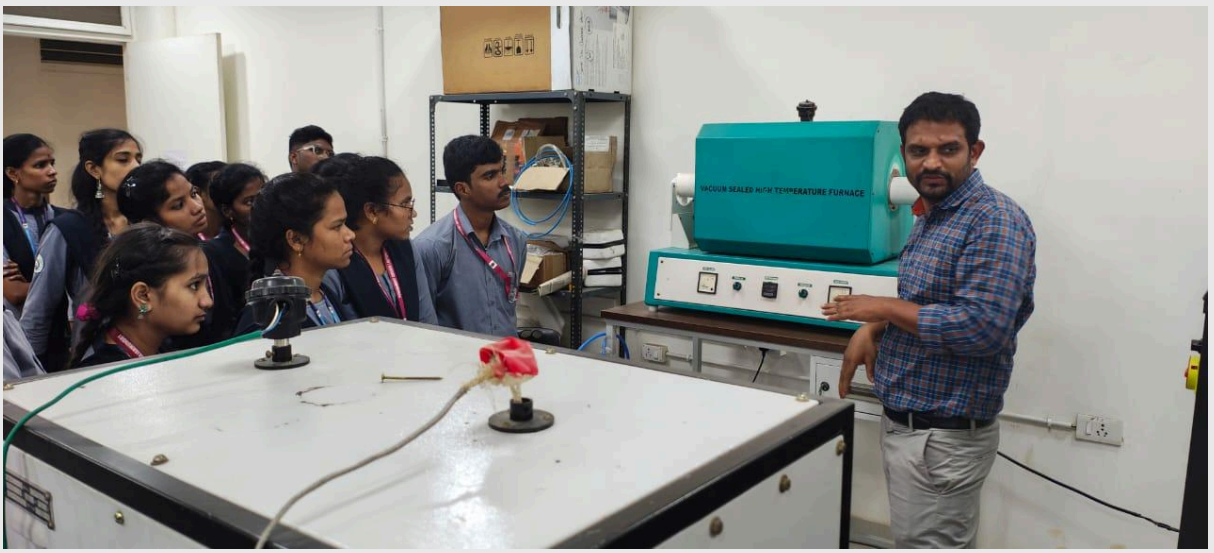
Closed Cycle Refrigerator (He Gas)



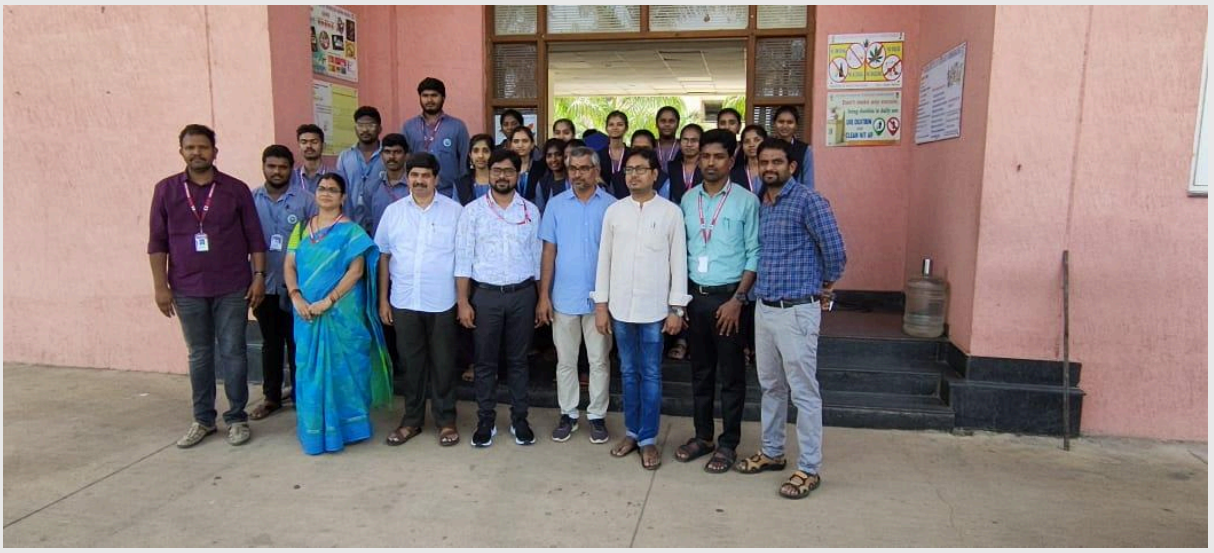


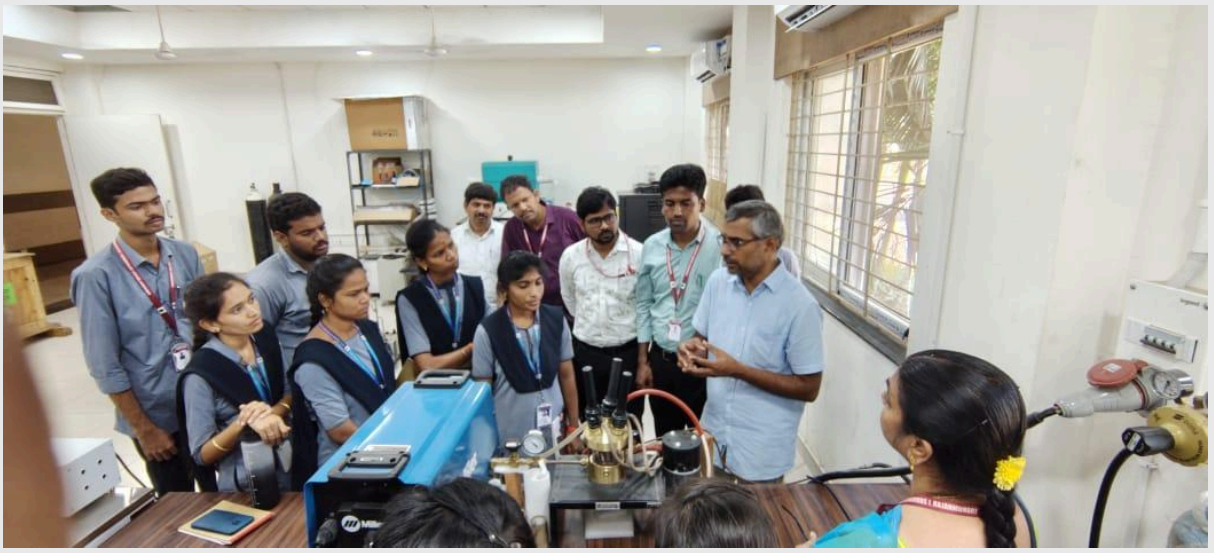
Data Analysis





Vacuum sealed Tubular furnace





Triarc Melting Setup

Paper clippings

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ప్రజాశక్తి
మంగళవారం 18 మార్చి 2025 5 తూర్పుగోదావరి

'నిట్'ను సందర్శించిన ఆర్ట్స్ కళాశాల విద్యార్థులు

ప్రజాశక్తి- రాజమహేంద్రవరం

ఆర్ట్స్ కళాశాలలో భౌతిక శాస్త్ర పీజీ విద్యార్థులు తాడేపల్లిగూడెంలోని నిట్ విద్యాలయాన్ని సోమవారం సందర్శించారు. నిట్, ఆంధ్రప్రదేశ్ అధ్యాపకులు ప్రొఫెసర్. పి.తపస్, ప్రొఫెసర్ జె.కృష్ణమూర్తి, ప్రొఫెసర్ ఎం.రాముడు విద్యార్థులకు పదార్థ పరిశోధనా పద్ధతులు, ఉన్నత విద్య అవకాశాలను వివరించారు. ఈ కార్యక్ర మంలో భౌతికశాస్త్ర విభాగాధిపతి సిహెచ్.కోమల లక్ష్మి, కె.వెంకటేశ్వరరావు, బి.గౌరీనాయుడు, బి.హరినాథ్ండ్డి, జె.నిరంజనరావు పాల్గొన్నారు.

ఈనాడు
తూర్పుగోదావరి
మంగళవారం మార్చి 18, 2025

నిట్‌ను సందర్శించిన విద్యార్థులు

దేవీచౌక్: రాజమహేంద్రవరం ప్రభుత్వ ఆర్ట్స్ కళాశాల భౌతిక శాస్త్ర పీజీ విద్యార్థులు సోమవారం తాడేపల్లిగూడెంలోని నిట్‌ను సందర్శించారు. నిట్ అధ్యాపకులు విద్యార్థులకు పరిశోధన పద్ధతులు, అవకాశాలను వివరించారు. కార్యక్రమంలో కళాశాల భౌతిక శాస్త్ర విభాగాధిపతి సీహెచ్ కోమల లక్ష్మి, అధ్యాపకులు పాల్గొన్నారు.

Outcomes

- **Exposure to Advanced Laboratories:**

  Students observed well-equipped physics laboratories, including the optics lab, and materials science lab, computational analysis lab to enhance their understanding of modern research techniques.

- **Hands-on Learning Experience:**

  By witnessing experiments related to material science, and thin-film coating, students gained practical knowledge beyond theoretical classroom learning.

- **Understanding of Research Methodologies:**

  Interaction with research scholars helped students learn about advanced research methodologies, experimental setup designs, and data analysis techniques.

- **Awareness of Computational Physics Tools:**

  Students explored the computational physics lab, where they were introduced to simulation software and programming tools used for theoretical modelling and data interpretation.

- **Insight into Experimental Techniques:**

  Observing high-precision instruments like closed circuit refrigerators, sample preparation methods via arc technique, and vacuum coating units provided students with a deeper understanding of how experimental physics is conducted.

- **Exploration of Library and Resources:**

  The visit to the central library, which houses extensive research papers, journals, and reference books, encouraged students to explore academic literature for their projects and research.

- **Interaction with Faculty and Researchers:**

  Discussions with faculty members and PhD scholars provided valuable career guidance, research insights, and information on higher education opportunities in physics.

- **Understanding Industrial and Technological Applications:**

  The visit highlighted the practical applications of physics research in industries such as semiconductors, material science, and optics, broadening students' career perspectives.

- **Motivation for Higher Studies and Research:**

  Observing the academic environment and research facilities at NIT inspired students to consider pursuing higher education (PhD) or engaging in innovative research projects.

- **Enhanced Teamwork and Observation Skills:**

  The trip encouraged collaborative learning, with students discussing observations, analysing experiments, and sharing insights, fostering a spirit of teamwork and critical thinking.

List of Participants

Faculty:

1. Smt. Ch Komala Lakshmi
2. Sri K. Venkateswara Rao
3. Dr. B. Harinath Reddy
4. Dr. B. Gowri Naidu
5. Sri. J. Niranjan Rao

Students:

I MSc Physics

1. CHICHADI THRIVENI
2. KANCHARLA STELLA GRACE
3. KOKKIRIPATI SRI GOWTHAM
4. MIRIYALA LAXMI DEVI
5. SODE MOUNIKA
6. SODE NAGESWARI
7. TRIPURARI RAMA BHANU SRI
8. VADDADI SATYA KUMAR
9. VEMUDASI SAMPURNA
10. PALIVELA MARY JEMIMAH
11. JOKA GANESH

II MSc Physics

12. G TULASI SURYA PRABHA
13. P SADVIKA
14. P LAWRENCE
15. P KUSUMA
16. T SWATI

17. GOPAL KRISHNA
18. SAHEDA

Ch Komala Lakshmi

Smt. Ch. Komala Lakshmi
HOD of Physics & Electronics