

## ABOUT NIT ROURKELA



National Institute of Technology (NIT) Rourkela is a prestigious institution of national importance, which is fully funded by the Ministry of Education. The institute is recognized as one of the leading national-level institutions for technical education in India. Its primary objective is to produce highly skilled and competent engineers and scientists through its graduate, post-graduate, and doctoral programs in various branches of Engineering and Science. NIT Rourkela has been ranked 317 in QS Asia University Ranking in 2025. In 2025, NIT Rourkela ranked 13 in NIRF Engineering, 30 in NIRF Research and 34 in NIRF Overall. The institute research centers are engaged in consultancy and research activities of several bodies such as ANRF, DST, DAE, CSIR, DRDO, BARC, ISRO and private industries. For further information about the institute, please visit our website at [www.nitrkl.ac.in](http://www.nitrkl.ac.in)

## ABOUT THE DEPARTMENT

The Department of Physics at NIT Rourkela was established in 1961. The department is known for providing high-quality education in undergraduate and postgraduate studies, as well as PhD and M.Tech (Research) programs.

Presently, the department is actively engaged in research activities that cover a range of fields, including low-temperature physics, astrophysics, astronomy, functional material, soft matter and polymer physics, and theoretical physics.

These research activities are conducted by renowned researchers and scholars who are committed to advancing the boundaries of knowledge in their respective fields.



## ORGANISING COMMITTEE

### PATRON

**Prof. K. Umamaheshwar Rao**

Director, NIT Rourkela, Odisha

### CHAIRPERSON

**Prof. Jyoti Prakash Kar**

HOD, Department of Physics and Astronomy

### CONVENOR

**Prof. Suryanarayan Dash**

Department of Physics and Astronomy

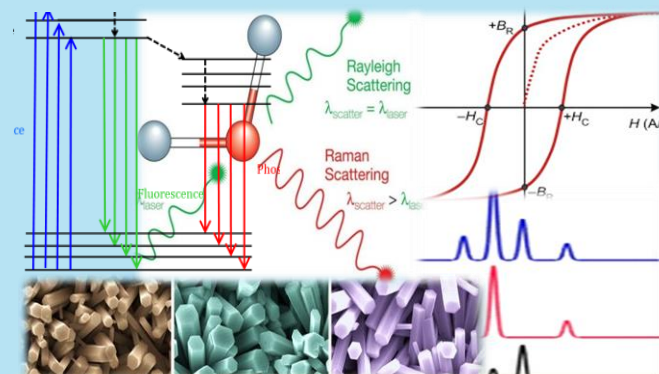
### Co-CONVENOR

**Prof. Gopi Nath Daptary**

Department of Physics and Astronomy

## Who can attend

Post-Graduate, Ph.D. students, Postdoc, Young researchers, Faculties and Industry personals from various institutes, universities or industries who are working in materials science, experimental Condensed Matter Physics or related subjects are encouraged to apply.



Registration Begins: 10<sup>th</sup> October 2025

Registration Closes: 10<sup>th</sup> November 2025



Online Mode

**ACTMS-2025**

**5-Day  
National  
Workshop  
On  
use of**

**Advanced  
Characterization  
Techniques in  
Materials Science**

**17<sup>th</sup> -21<sup>st</sup> November 2025**

**Dept. of Physics and Astronomy  
NIT Rourkela, Odisha-769008**



## List of Speakers

- ❖ Prof. N. Kamaraju (IISER Kolkata)
- ❖ Prof. V. Raghavendra Reddy (UGC DAE CSR Indore)
- ❖ Prof. Som Datta Kaushik (UGC DAE CSR Mumbai)
- ❖ Prof. Subrata Das (NIIST Thiruvananthapuram)
- ❖ Prof. Jaspreet Singh (RRCAT Indore)
- ❖ Prof. Jyoti Prakash Kar (NIT Rourkela)
- ❖ Prof. Dillip Kumar Pradhan (NIT Rourkela)
- ❖ Prof. Pitambar Mahanandia (NIT Rourkela)
- ❖ Prof. Suryanarayan Dash (NIT Rourkela)
- ❖ Prof. Gopi Nath Daptary (NIT Rourkela)

## About the Workshop

The Department of Physics and Astronomy, NIT Rourkela, is hosting a five-day Workshop on the use of “Advance Characterization Techniques in Materials Science (ACTMS-2025)” from 17<sup>th</sup>–21<sup>st</sup> November 2025. This workshop aims to provide post-graduate, Ph.D. students, postdoc, young faculties and researchers with the technical knowledge and training on various advance characterization techniques in material science research. It also gives them access to eminent scientists with expertise in this field, which will help to build a solid foundation for future material scientist. This five-day workshop, which is led by a team of experts, aims to combine lectures by eminent scientists, visual aids, and data analysis that are used to understand the underlying mechanism in the advance materials vis-à-vis its modern day applications.

For more details, please click the URL:

<https://sites.google.com/view/actms2025-nitrkl/home>

## CONTACT US

**The Convenor (ACTMS2025)**  
**Prof. Suryanarayan Dash, Convenor**  
**Prof. Gopi Nath Daptary, Co-Convenor**

**Student Volunteers:**

**Alok Kumar Sahoo : 9668485502**

**Jagadis Prasad Nayak : 6371454836**



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0661-2462733

## Topics Covered

- Recent breakthroughs, and trends in experimental condensed matter physics and materials science .
- Understanding crystal structures, lattice distortions, and local environments.
- Visualize materials from surface to atomic scale, and map crystallographic orientations.
- Explore magnetic and transport properties from bulk to atomic scale.
- Probe phonons, bandgaps, and low-energy excitations.
- Investigate surface chemistry, depth profiles, and local atomic environments.



## HOW TO REGISTER

The participants need to register by filling of google form

<https://forms.gle/TtPQ4Ci4W8gzCWRf7>

## REGISTRATION DETAILS

### REGISTRATION FEE

: ₹2000/- (For All Participants)

Registration fees should be bank transferred through

**UPI/NEFT/IMPS** to the following Account

Number (Name): **10138951784 (CONTINUING EDUCATION NIT ROURKELA)**

IFSC Code: **SBIN0002109**

Bank & Branch Name: **SBI, NIT Campus, Rourkela**

Merchant Name : CONTINUING EDUCATION NIT

UPI ID: 01389517841@sbi

\*Registration fees are non-refundable



## HIGHLIGHTS OF WORKSHOP



- ✓ Live expert lectures and interactive sessions with Q & A
- ✓ Comprehensive overview of advanced techniques
- ✓ Virtual demonstrations
- ✓ Case studies and Data analysis
- ✓ Bridging theory & practice through guided demonstrations & discussions
- ✓ Insights into Emerging research trends

\*e-participation certificate will be provided to the registered participants