



राँची विश्वविद्यालय
RANCHI UNIVERSITY

University Department of Physics,
Ranchi University

National Conference
on
**Emerging Frontiers in Science,
Engineering and Technology
(NCEFSET): Celebrating Centenary Year
of Schrödinger Equation
(1926-2026)**

August 21-22, 2026
[Hybrid mode]

Organized by:

**University Department of
Physics, R. U. Ranchi**

In Association with:

**Jharkhand State Higher
Education Council, Department
of Higher and Technical
Education, Govt. of Jharkhand**

VENUE

Aryabhata Auditorium & University Dept. of Physics, RU, Basic
Science Building, Morabadi, Ranchi, Pin-834001 Jharkhand

ABOUT THE DEPARTMENT

Established in the year 1958 in the Ranchi College (then a constituent college of Bihar University), it became a full-fledged University Department after the creation of Ranchi University. The Department imparts M.Sc. course in Physics with specialization in Electronics and Condensed Matter Physics and M.Sc. course in Electronics & Communication. The Department has the distinction of developing and updating Physics curriculum in the undivided state of Bihar through the UGC sponsored ULP and COUSIP. This department has a rich tradition of research activities and in the first two decades of its existence it was a nationally acclaimed Centre for research in X-ray crystallography.

ABOUT THE CONFERENCE

A two-day event aimed at fostering interdisciplinary dialogue and collaboration across diverse domains of science, engineering, and technology. The conference is set to celebrate the centenary year of Schrodinger equation (1926-2026) in Quantum mechanics.

The Schrödinger equation is a cornerstone of modern science, enabling us to understand, predict, and manipulate the behaviour of matter at the smallest scales. Its applications span physics, chemistry, engineering, and technology, making it indispensable to both theoretical research and practical innovation

This conference seeks to explore cutting-edge developments, transformative ideas, and the convergence of multiple disciplines to address contemporary global challenges—particularly in the context of sustainability, innovation, and technological advancement. It will provide a dynamic platform for researchers, academicians, industry professionals, and

young scholars to share knowledge, present research findings, and engage in meaningful discussions.

The conference will throw light on major national programs National Quantum Mission (NQM), launched in April 2023 with a budget of ₹6,003 crore. This mission targets breakthroughs in quantum computing, communication, and quantum materials, aiming to develop quantum computers, and cutting-edge quantum sensors and superconductors.

By bringing together thought leaders from varied scientific and technical backgrounds, the event encourages cross-disciplinary learning and opens avenues for novel approaches to complex problems. Special focus will be given to the role of emerging technologies in shaping a sustainable future, emphasizing innovation-driven growth and practical solutions.

Through keynote lectures, technical sessions, and interactive forums, the conference aims to inspire fresh perspectives and collaborative efforts that transcend traditional boundaries of individual disciplines.



CONFERENCE OBJECTIVE

The *National Conference on Emerging Frontiers in Science, Engineering, and Technology: Celebrating centenary year of Schrödinger equation (1926-2026)* is poised to deliver significant outcomes that can directly benefit the development of Jharkhand, particularly through the advancement and application of basic sciences. One of the key outcomes will be the creation of a knowledge-driven ecosystem that encourages scientific inquiry and fosters collaboration among academic institutions, research organizations, and policymakers.

By focusing on fundamental sciences—such as physics, chemistry, biology, and mathematics—the conference will help identify how core scientific principles can be applied to address region-specific challenges like mineral resource sustainability, environmental pollution, clean water access, public health issues, and renewable energy deployment. These discussions can lead to actionable research agendas and policy recommendations tailored to the unique needs of Jharkhand.

Moreover, the event will serve as a capacity-building platform for local students, educators, and researchers by exposing them to national-level expertise and cutting-edge scientific advancements. It is also expected to catalyze long-term collaborations, promote interdisciplinary research, and support the development of science education in the region.

The utility of this conference lies in its potential to bridge the gap between academic knowledge and societal application, ultimately contributing to inclusive, innovation-led, and environmentally conscious growth in the state.

CONFERENCE THEMES

- **Quantum Bits**
- **Quantum Information in processing**
- **Quantum Computing**
- **Quantum Entanglement**
- **Teleportation**
- **Quantum Chemistry**
- **Quantum Biology**
- **Quantum World view**
- **Quantum Application**
- **Spectroscopy**
- **Astrophysics**

- **Condensed Matter Physics**
- **Advanced Material Science**
- **Thin Films**
- **Composites**
- **Biomaterials**
- **Atomic and Molecular Physics**
- **Laser and Non-Linear Optics**
- **Imaging Process and Holography**
- **Semiconductor Physics**
- **Superfluidity**
- **Millimeter Wave Communication**
- **Nano Physics and Technology**
- **Nuclear and Particle Physics**
- **National Quantum Mission**
- **Energy Materials**

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Mr. Sanjay Kumar, RS, RU, Ranchi
Mr. Ashutosh Roy, RS, RU, Ranchi

CALL FOR PAPERS

The NCFESET-2026 invites original research papers from researchers, academicians, scientists, and industry professionals addressing the conference themes and related topics. All submissions will undergo a rigorous peer-review process. Accepted papers will be presented at the conference. Papers presented will be published in peer-reviewed conference proceedings with ISBN.

SUBMISSION GUIDELINES

Abstracts should be within 200 words as per the following template (download from the given link) and submitted to the conference email

https://docs.google.com/document/d/1x_a_8lgeGjT2OHjkq1mGlbyPlHspe0hMAy3lrsiVFe8/edit?usp=sharing

[\(ranchiuniversityphysics@gmail.com\)](mailto:ranchiuniversityphysics@gmail.com)

(Word file, Margin Normal, Line spacing 1.0, Font size 12, Font type Times New Roman. Paper title Bold, font 18; Authors name font 12, Authors affiliation font 10, Presenting Author's name Underlined, Corresponding Author's name Asterisk marked superscript, Keywords Maximum 5, separated by comma.... All details available in the Abstract Template)

REGISTRATION FORM

Fill the registration form ONLY after receiving the acceptance email of the Abstract

<https://forms.gle/p7ZPTVBkzS3AjH56>

After acceptance, the full papers should follow the provided template and must be uploaded through the Registration form.

AWARD: Best Oral and Poster Awards

Best Oral and Poster presentation award will be given session wise as per the theme and scope of the conference.

REGISTRATION FEE

Faculty: ₹ 2000
Research Scholars: ₹ 1500
Students: ₹ 500
Scientists/Professionals: ₹ 5000

Registration fee includes Delegate kit, Abstract book, Breakfast, Lunch, Snacks and Tea/ Coffee during the conference days.

BANK DETAILS

Account Name: HoD Physics
Account Number: 1884620282
IFSC: CBIN0281311
Bank Name: Central Bank of India
Branch: Ranchi College Campus, Morabadi, Ranchi

IMPORTANT DATES

Abstract submission: June 21, 2026
Abstract acceptance: June 22, 2026
Registration & Fee payment: June 23 to June 30, 2026
Full Paper submission: June 25-July 10, 2026
Full paper acceptance: August 10, 2026
Date of conference: **August 21-22, 2026**

CONTACT DETAILS

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How to reach:

The nearest airport is Ranchi (IXR), 10 Kms approximately. The nearest Railway station is Ranchi Junction (RNC) approximately 06 Kms. Cabs are easily available from Ranchi airport and Ranchi railway junction.

THE FOUNDING FATHER OF QUANTUM MECHANICS



Born: August 12, 1887, Vienna, Austria

Died: January 4, 1961, Vienna, Austria

Erwin Schrödinger was an Austrian Physicist renowned for his significant contributions to quantum mechanics. His contributions continue to influence physics, chemistry, and philosophy. His equations and interpretations remain fundamental in quantum theory and education.

$$i\hbar \frac{\partial}{\partial t} \Psi = \hat{H} \Psi$$

His major contributions include-

Schrödinger Equation: Formulated in 1925, a foundational result in quantum mechanics that describes how the quantum state of a physical system changes over time.

Wave Mechanics: An alternative formulation of quantum mechanics to Werner Heisenberg's matrix mechanics.

Schrödinger was awarded the Nobel Prize in Physics in 1933 (shared with Paul Dirac) for the discovery of new productive forms of atomic theory.

He is also well-known for the "Schrödinger's Cat" thought experiment, which illustrates the concept of superposition in quantum mechanics and highlights the paradoxes of quantum theory when applied to everyday objects.

