



रांची 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**

Patrons

Vice Chancellor

Ranchi University, Ranchi

Principal Secretary

Dept. of Higher and Technical Education, Govt. of Jharkhand

Director

Dept. of Higher Education, Govt. of Jharkhand

Conference Chair

Dr. Sunil Kumar Singh

Conference Co-Chair

Dr. Arun Kumar, Dr. N. K. Rana

Convener

Dr. Raj Kumar Singh

NATIONAL ADVISORY COMMITTEE

Prof. B. Narayan, RU, Ranchi
Prof. R. D. G. Prasad, RU, Ranchi
Prof. A. A. Khan, Former VC, RU, Ranchi
Prof. N. R. Roy, RU, Ranchi

Prof. J. N. Prasad, RU, Ranchi
Prof. S. N. Singh, Former VC, NPU, Medininagar
Prof. S. Medhekar, VC, CUJ, Ranchi
Prof. D. K. Singh, Former VC, RU, Ranchi
Prof. C. Jegannathan, VC, SBU, Ranchi
Prof. Kamal Prasad, TMBU, Bhagalpur
Prof. Asheesh Kumar, BEU, Patna
Prof. A. K. Srivastava, DCVRU, Bilaspur, CG
Prof. Sanjeev Kumar Srivastava, IIT, KGP
Prof. Manoj Kumar Harbola, IIT, Kanpur
Prof. R. K. Singh, BIT, Sindri
Prof. Kalyan Bhuyan, Dibrugarh University
Dr. Dharmendra Kr Dheer, NIT, Patna
Dr Ram Krishna Sarkar, BIT, Deoghar
Prof. S. N. Vimal, BIT, Sindri
Prof. S. S. Solanki, BITM, Ranchi
Prof. N. K. Sinha, CIT, Ranchi
Prof. S. R. Kumar, NIAMT, Ranchi
Prof Alok Kumar Das, IIT-ISM, Dhanbad
Prof. A. Srinivasulu, JECRC University, Jaipur
Prof. M. Mishra, DDU University, Gorakhpur
Prof. Manish Prateek, Petroleum University, Dehradun
Prof. Usha Mehta, Nirma Institute of Tech. Ahmadabad
Dr. N.S. Rao, MEC, Hyderabad
Dr. A. K. Akhouri, RU, Ranchi
Dr. Jayanti Ashok, RU, Ranchi
Dr. A. P. Saha, RU, Ranchi
Dr. Asha Lata Sinha, RU, Ranchi
Dr. Arun Kumar, RU, Ranchi
Dr. Vinita Sharan, RU, Ranchi
Dr. Sudha Singh, RU, Ranchi
Dr. Sanjay Kumar Dey, RU, Ranchi
Dr. Achint Kapoor, RU, Ranchi
Dr. N. N. Ojha, DSPMU, Ranchi
Dr. S. C. Gupta, DSPMU, Ranchi
Dr. Prashanta Kr Mahato, IIT-ISM, Dhanbad
Dr. Dharmendra Singh, CUJ, Ranchi



Dr Gomti Th. Devi, Manipur University
Dr Yogesh Chandra, GPGCB, U.S. Nagar
Dr. J. B. Sharma, Rajasthan Tech. Univ. Kota
Dr Devendra Bisht, ICSP, Kolkata
Dr Deepak Pandey, GEHU, Haldwani
Dr. Santosh Vishvakarma, IIT Indore
Dr. Arpan Deyasi, RCC Institute of Technology Kolkata
Dr. A. Srinivasulu, Professor, Vignan's University, AP
Dr. Shylashree N, RVCE Bengaluru
Prof. N.K. Kamila, CVRCE, Bhubaneshwar, Odisha
Dr. B.K. Ratha, Utkal University, Odisha
Dr. K. Mamta, BEU, Patna
Dr. Pralay Maiti, IIT, BHU
Dr. Ashutosh Kumar, IIT, Bhilai
Dr. S.P. Tiwari, IIT Jodhpur
Dr. Rajeev Ranjan, NIT, Jamshedpur
Dr. Biplab Kumar Debnath, NIT, Meghalaya
Dr Dilip Kumar Singh, BITM, Ranchi
Dr. Upendra Kumar, BIT, Patna
Dr. Vijay Nath, BITM, Ranchi
Dr. Rajeev Kumar Sinha, BITM, Ranchi
Dr. Anil Kr. Sisodia, GBPGC, Pali, Rajasthan
Dr. Dhruv Jyoti Gogoi, Dibrugarh University
Dr. Vijay Kumar Verma, MU, Bodhgaya

ORGANISING COMMITTEE

Dr. S. K. Singh, RU, Ranchi
Dr. A. Kumar, RU, Ranchi
Dr. R. K. Singh, RU, Ranchi
Dr. N. K. Rana, RU, Ranchi
Dr. Manoj Kumar, Marwari College, Ranchi
Dr. Asha Prasad, RWC, Ranchi
Dr. Shashi Shekhar, RLSY College, Ranchi
Dr. B. P. Akhouri, SSM College, Ranchi
Dr. Brajesh Kumar, Doranda College, Ranchi
Dr. Brajesh Priyadarshi, Simdega College, Simdega
Sri Sanjay Kumar, KOC, Gumla

Dr. Namita Singh, DSPMU, Ranchi
Dr. J. P. Sharma, DSPMU, Ranchi
Sri Rajesh Kumar, DSPMU, Ranchi
Dr. Anupam Kumar, DSPMU, Ranchi
Dr. Preeti D. Minz, RWC, Ranchi
Mr. Santosh Rajwar, Marwari College, Ranchi
Dr. Swarat Choudhary, SXC, Ranchi
Dr. Sumit Kumar Roy, SXC, Ranchi
Dr. Mitesh Chakraborty, SXC, Ranchi
Dr. Rajesh Kumar, SXC, Ranchi
Dr. Kundan Kumar, UDoP, RU
Dr. Kuntal Mukherjee, BIT, Mesra
Dr. Shravan Kumar, NPU, Medininagar
Dr. Mirtunjay Kumar Deepak, NPU, Medininagar
Dr. Dilip Kumar Giri, BBMKU, Dhanbad
Dr. Dhanajay Kr Singh, BBMKU, Dhanbad
Dr. Sayantan Sil, BBMKU, Dhanbad
Dr. Laxmi Shiveshwari, VBU, Hazaribagh
Dr. Puran Saw, VBU, Hazaribagh
Dr. N. Chandra, VBU, Hazaribagh
Dr. Rajeev Ranjan Sinha, SKMU, Dumka
Dr. Rajesh Kumar Yadav, SKMU, Dumka
Dr. Ranjeet Kumar Karn, KU, Chaibasa
Dr. S. K. Gorai, KU, Chaibasa
Dr. Rajendra Kumar Jayaswal, JWU, Jamshedpur

TECHNICAL TEAM

Dr. N. K. Rana, UDoP, RU
Ms. Swagata Chakraborty, RS, Ranchi
Mr. Rahul Kumar Singh, SRF, RU, Ranchi
Mr. Subhasis Jana, RS, RU, Ranchi
Mr. Ritesh Kumar Pathak, RS, RU, Ranchi
Mr. Rupesh Kumar, SRF, RU, Ranchi
Mr. Rakesh Prasad, RS, RU, Ranchi
Mr. Nawlesh Kumar Singh, RS, RU, Ranchi
Mr. Gautam Anand, RS, RU, Ranchi
Mr. Ashutosh Kumar, RS, RU, Ranchi

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

CALL FOR PAPERS

The NCEFSET-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

(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/p7ZPTVTBkzS3AjH56>

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
Attendee:	₹ 2000

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:	July 10, 2026
Abstract acceptance:	July 11, 2026
Registration & Fee payment:	Ongoing till July 13, 2026
Full Paper submission:	July 25, 2026
Full paper acceptance:	August 10, 2026

Date of conference: **August 21-22, 2026**

CONTACT DETAILS

Email: ranchiuniversityphysics@gmail.com

Website: www.ranchiuniversity.ac.in

Mr. Rupesh Kumar, Phone: 7992231789

Mr. Ritesh Kumar Pathak, Phone: 7292882825

Dr. Raj Kumar Singh, Phone: 7070476268



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

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

fundamental in quantum theory and education.

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.

