



Two - Day National Seminar on **Recent Advances and New Challenges in Physics (RANCP-2025)**



Date: 05th - 06th Sep, 2025



Venue: Auditorium, RIHS, Bhograi



Organized By
Department of Physics,
Rural Institute of Higher Studies,
Bhograi, Balasore

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Visit us: <https://www.rihsbhograi.org/>



**Chief Patron**

Prof. Santosh Kumar Tripathy
Vice-Chancellor,
Fakir Mohan University,
Balasore

**Chief Guest**

Prof. Sudhakar Panda
Former Director, NISER,
Bhubaneswar

**Keynote Speaker**

Prof. Prashant K. Panigrahi
IISER, Kolkata

**Patron**

Mr. Bijaya Kumar Mishra
Principal,
RIHS, Bhograi

Invited Speakers:

Prof. Jajati Kesari Nayak
VECC, Kolkata



Prof. Manoranjan Kar
IIT Patna



Prof. Sukadev Sahoo
NIT Durgapur



Prof. Sunanda K. Patri
VSSUT, Burla



Prof. Biswajit Pradhan
IIIT Bhubaneswar



Prof. M.P.K. Sahoo
VSSUT, Burla



Prof. Santosh K. Agrawalla
F.M. University, Balasore



Prof. Akhyaya K. Pattanaik
VSSUT, Burla



Prof. Umakanta Tripathy
IIT (ISM) Dhanbad



Prof. Pravanjan Mallick
MSCB University,
Baripada



Prof. Rakesh K. Sahoo
Govt. Womens
College, Sambalpur

Convenor: Dr. Umakanta Samal
Organizing Secretary: Mr. Tapan Kumar Panda

Co-ordinators:

Dr. Dharendra Kumar Jena, Director, RDC
Mr. Ranjit Mandal, Co-ordinator, IQAC

Organizing Committee:

1. Dr. Bijay Ketan Pattanayak, Faculty, Department of English
2. Mr. Dillip Kumar Jena, HOD, Department of Physics
3. Dr. Anup Kumar Samal, Faculty, Department of Education
4. Mr. Nayan Pradhan, Faculty, Department of Chemistry
5. Dr. Nilakantha Khanda, Faculty, Department of Odia
6. Dr. Bandita Pradhan, Faculty, Department of Odia
7. Mr. Dusmanta Kumar Das, Faculty, Department of Physics
8. Mrs. Sweta Padmashini Patra, Faculty, Department of Physics
9. Mr. Satyajit Mallik, Faculty, Department of Commerce
10. Mr. Pradeep Kumar Jena, Department of Physics
11. Mr. Nanda Kumar Das, Department of Physics

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1. Mr. Jagdish Chandra Giri, Administrative Bursar
2. Mrs. Tribeni Dhara, HOD, Department of Education
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4. Mr. Chaturbhuja Ghadai, HOD, Department of Odia
5. Mr. Prashant Das, HOD, Department of Mathematics
6. Mr. Dinakrushna Giri, HOD, Department of Chemistry
7. Mr. Braja Bihari Pati, HOD, Department of Sanskrit
8. Mr. Asutosh Nayak, HOD, Department of Commerce
9. Mrs. Jhilimani Nayak, HOD, Department of Zoology
10. Mrs. Suchismita Kar, HOD, Department of Botany
11. Mr. Shiv Sundar Patra, HOD, Department of History
12. Ms. Sweety Dang, HOD, Department of Philosophy
13. Mr. Tapan Kumar Sahoo, HOD, Department of Economics

About the Seminar:

The National Seminar on “Recent Advances and New Challenges in Physics (RANCP-2025)” aims to explore groundbreaking developments and emerging challenges in modern physics. Topics include nanoscience, quantum computing, machine learning in physics, biomimicry, and early disease detection.

The seminar will also address complex issues in condensed matter, high energy physics, astrophysics, biophysics, and quantum gravity—especially the reconciliation of general relativity with quantum mechanics. Challenges like understanding dark matter and simulating many-particle quantum systems will be discussed. This platform will bring together researchers, academicians, and students to share insights, foster collaboration, and contribute meaningfully to scientific progress and society.

Seminar Themes

- Quantum Computing & Quantum Materials
- Physics of New Materials (2D / Topological / Energy Materials)
- Theoretical & Computational Physics
- Artificial Intelligence and Bio-Mimicry
- Soft Matter & Bio-Physics
- Nuclear & High Energy Physics
- Astronomy, Astrophysics & Cosmology

GUIDELINES FOR PAPER SUBMISSION:

1. All submissions must be made in MS Word format. The Abstract with 4-5 keywords should be within 200-300 words and the full paper within 3000 words, typed in Times New Roman Font with size of 12 and 1.5 spacing.
2. The cover page should bear title, name of author, affiliation, E-Mail ID and phone number. The first page of the manuscript (after the cover page) should contain the Title, the Abstract, and the main/textual body systematically.
3. The Papers that focus on the seminar themes would be given top priority in the selection process. The submitted paper should be original work and must not have been published or submitted anywhere else for publication.
4. The papers will be selected for oral presentation depending on the plagiarism report and review. The decision of the reviewers will be final and binding in all respects. The accepted abstracts will be published in the book form. The accepted final papers will be published as a book with ISBN by reputed publisher in National level.

CALL FOR ABSTRACT

We welcome abstracts from researchers, scholars, and practitioners on “Recent Advances and New Challenges in Physics (RANCP-2025)”. Interdisciplinary studies combining theory, applications, and emerging research frontiers are highly encouraged.

**Scan the QR Code to
Submit Your Abstract**



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- 9431796806@ybl

Payment Information:

- Account Holder Name: Tapan Kumar Panda
- Account Number: 20045595279
- IFSC Code: SBIN0006933
- Bank Name: State Bank of India, Balasore

Accommodation Details:

- No TA/DA will be provided to the participants.
- Free accommodation is available on first-come, first-served basis.

For Accommodation, Contact:

- Mr. Tapan Kumar Panda
- 📞 7750933833
- ✉️ physics.rihs@gmail.com

About RIHS, Bhograi:

Established in 1980, the Rural Institute of Higher Studies (RIHS), Bhograi has been a center of academic excellence and rural empowerment in northern Odisha. Affiliated to the Council of Higher Secondary Education (CHSE) and Fakir Mohan University (FMU), the college offers +2 and +3 programs in Arts, Science, and Commerce, with Honours courses in all disciplines.

In addition to undergraduate programs, RIHS also offers postgraduate courses in English, Education, Odia, and Political Science.

With nearly 4,000 students, the institute is known for its modern infrastructure, including well-equipped laboratories, e-library, ICT-enabled classrooms, girls' hostels, and an auditorium.

Accredited with 'B' Grade by NAAC in 2024, RIHS continues its mission to deliver inclusive and quality education, blending tradition with modernity, and empowering the rural youth of Odisha.

About the Department of Physics:

Established in 1989, the Department of Physics at RIHS, Bhograi is a hub of academic excellence in the Science stream. Offering undergraduate programs under Fakir Mohan University, the department blends strong theoretical foundations with hands-on laboratory experience. With a team of dedicated faculties, it fosters critical thinking, scientific inquiry, and innovation. Many alumni have excelled in academia, research, and industry, making the department a vital contributor to rural scientific education and empowerment.

How to Reach Bhograi

1. By Road: RIHS, Bhograi is located just 500 meters from Thanachaka Bus Stand, Odisha. You can reach the college by road via NH16/NH316A from the Balasore Bus Stand, covering a distance of approximately 78 km. The college is well-connected by local buses and taxis.

2. Nearest Railway Station: The nearest railway stations to RIHS, Bhograi are Digha Railway Station (DGHA), which is about 14 km away, and Jaleswar Railway Station (JER), which is approximately 29 km away. These stations are well-connected to major cities and towns in West Bengal, Odisha, and other neighbouring states.

3. Nearest Airport: The nearest airport to RIHS, Bhograi is Netaji Subhas Chandra Bose International Airport (CCU) in Kolkata, located about 229 km away. Another nearby airport is Biju Patnaik International Airport (BBI) in Bhubaneswar, which is approximately 286 km away.

Nearby Tourist Attractions:

1. Digha Sea Beach



2. Talsari Sea Beach (Red Crab)



3. Bichitrapur Mangrove



4. Chandaneswar Temple



5. Bhusandeswar Temple



Important Dates

Last Date for Abstract Submission:
20/08/2025

Date of Intimation of Abstract Acceptance:
22/08/2025

Last Date of Registration:
01/09/2025

Target Participants:

Faculty Members | Research Scholars | PG Students | Professionals from Physics and Allied Disciplines

Registration Fee Details:

- Faculty Members: ₹700
- Ph.D. Scholars: ₹500
- Students: ₹200