



MANIPAL UNIVERSITY
JAIPUR



Issue: 5

JUNE | 2025

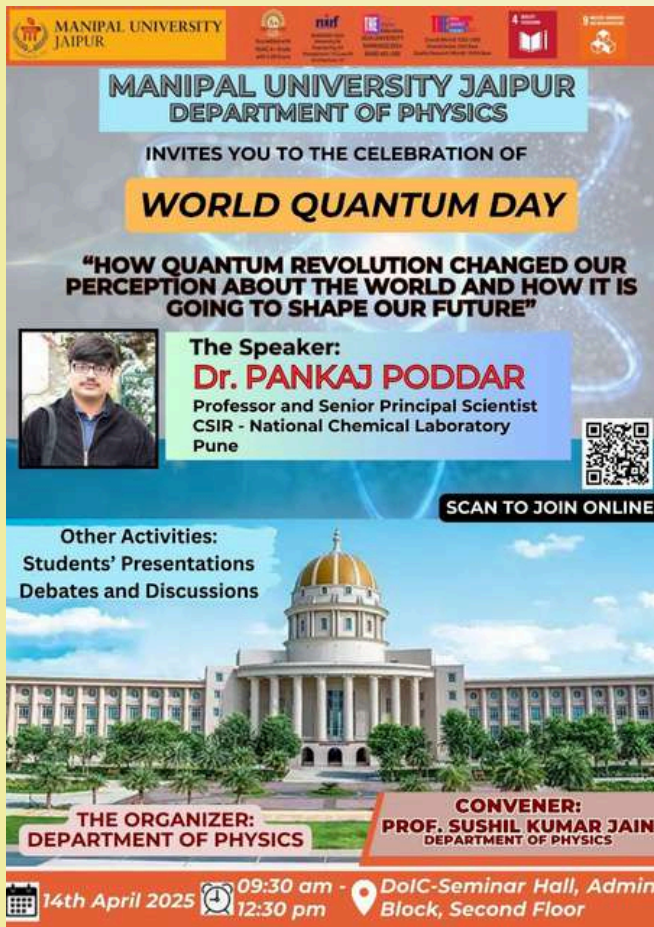
PRATHAM

Physics Research Advancements by Thoughtful Humankind and their Achievements Miscellany
Quarterly Newsletter



PRATHAM

Out & About



MANIPAL UNIVERSITY JAIPUR
DEPARTMENT OF PHYSICS

INVITES YOU TO THE CELEBRATION OF
WORLD QUANTUM DAY

"HOW QUANTUM REVOLUTION CHANGED OUR PERCEPTION ABOUT THE WORLD AND HOW IT IS GOING TO SHAPE OUR FUTURE"

The Speaker:
Dr. PANKAJ PODDAR
Professor and Senior Principal Scientist
CSIR - National Chemical Laboratory
Pune

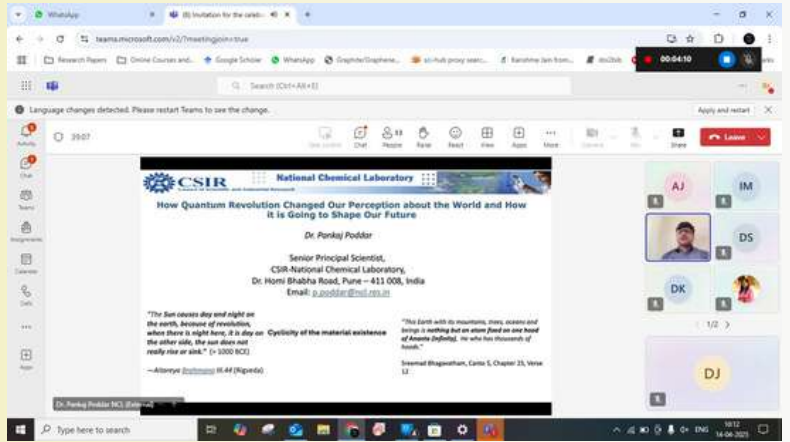
Other Activities:
Students' Presentations
Debates and Discussions

THE ORGANIZER:
DEPARTMENT OF PHYSICS

CONVENER:
PROF. SUSHIL KUMAR JAIN
DEPARTMENT OF PHYSICS

14th April 2025 09:30 am - 12:30 pm **DoIC-Seminar Hall, Admin Block, Second Floor**

SCAN TO JOIN ONLINE



The **Department of Physics**
hosted a special event to celebrate
"World Quantum Day"

The event featured a keynote talk by **Dr. Pankaj Poddar**, Senior Principal Scientist at CSIR–NCL, Pune, on how the quantum revolution is reshaping our understanding of the world. The program included student's presentations, debates, and discussions.



PRATHAM



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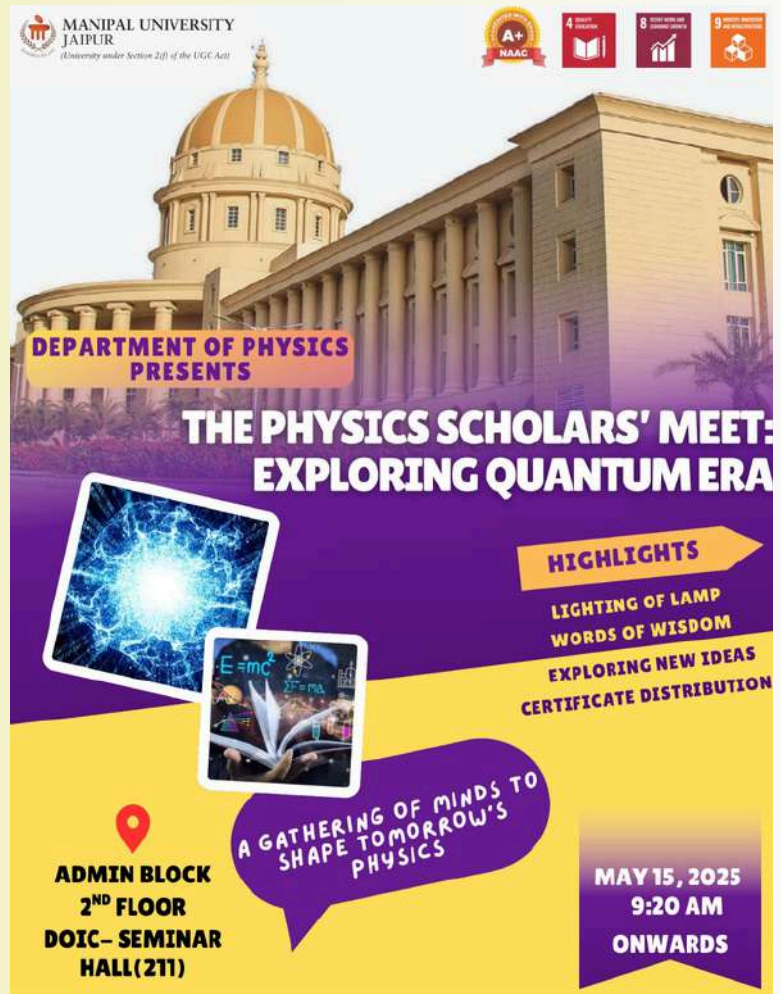
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MANIPAL UNIVERSITY
JAIPUR
(University under Section 2(f) of the UGC Act)

DEPARTMENT OF PHYSICS
PRESENTS

THE PHYSICS SCHOLARS' MEET: EXPLORING QUANTUM ERA

HIGHLIGHTS

- LIGHTING OF LAMP
- WORDS OF WISDOM
- EXPLORING NEW IDEAS
- CERTIFICATE DISTRIBUTION

**A GATHERING OF MINDS TO
SHAPE TOMORROW'S
PHYSICS**

**ADMIN BLOCK
2ND FLOOR
DOIC- SEMINAR
HALL (211)**

**MAY 15, 2025
9:20 AM
ONWARDS**

The **Department of Physics**
organized

"The Physics Scholars' Meet: Exploring Quantum Era" which aimed to bring together passionate minds to delve into emerging ideas in physics, particularly quantum science. It focused on shaping the future of physics through dialogue and innovation.

PRATHAM



MANIPAL UNIVERSITY JAIPUR

DEPARTMENT OF PHYSICS
INVITES YOU TO
ENERGIZE TO EXCEL

 **23.05.2025**
AT 10:00 AM

Venue: DoIC - Seminar Hall, Admin Block, Second Floor

Convener:
Dr. Saikat Chattopadhyay

The **Department of Physics**
organized
"**Energize to excel**"

which was a vibrant academic meet that aimed at fostering collaboration, innovation, and motivation among faculty. This initiative had promising insightful sessions and engaged discussions to inspire excellence in academics and research.



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Glimpse of 'Scholars' Meet'



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Scholars' Endeavours



Akash
Research Scholar

Paper Title

Effect of Ni doping on the properties of Ca(OH)_2 nanoparticles and its application in toxic methylene blue dye removal

Journal Name:

Results in Physics

Quartile no. -1 and Impact factor- 4.6

Paper Title:

SHI irradiation induced molecular and microstructural changes in $(\text{PANI})_{2.5}-(\text{V}_4\text{O}_7)_{7.5}$ composite

Journal Name:

Radiation Physics and Chemistry

Quartile no - Q2 and Impact factor - 3.3



Ashish K. Kumawat
Research Scholar

Paper Title:

Surface-induced adsorption of carbon black/metal organic framework composites for methylene blue dye.

Journal Name:

Separation Science and Technology

Quartile no. - Q2 and Impact factor - 2.3

Review Title:

A snapshot review on the impact of surfaces in metal-organic frameworks on dye adsorption and photocatalysis.

Journal Name:

MRS Advances

Quartile no. - Q3 and Impact factor - 2.3



Deepika Maan
Research Scholar

Poster Title:

Degradation of crystallinity in tin oxide incorporated with manganese and cobalt synthesized using coprecipitation method

Journal name : Journal of Luminescence

Quartile no - Q1 and Impact factor - 3.6



Karishma Jain
Research Scholar

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Kritika Garg
Research Scholar

Poster Title:

Impact of fluorine substitution on Benzene ring in two fluorinated liquid crystal components: a comprehensive analysis using TG_DTA, FT-IR, UV and PED techniques.

Journal Name:

Discover applied science

Quartile no - Q1 and Impact factor - 2.8

Presentation Title:

A comparative study of Staggering effect of Odd-A nuclei in A~130 mass region

Conference:

International Conference on Nuclear Structure and Nuclear Reactions-2025



Sandeep Kumawat
Research Scholar



Ugrasen Singh
Research Scholar

Paper Title:

Comprehensive review on experimental techniques for measuring the random duty cycle error in quasi-phase matched devices

Journal Name:

Discover applied sciences

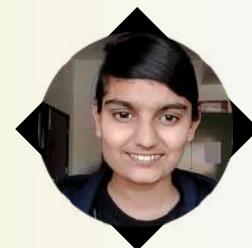
Quartile no. -Q1 and Impact factor- 2.8

Symposium:

Indian Nanoelectronics Users' Programme- Idea to Innovation
Centre of Nanotechnology, IIT Guwahati

Workshop:

INUP-i2i Online Familiarization Workshop on Nanodevice Fabrication & Characterization Techniques



Vishakha Sharma
Research Scholar

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Evolution in Physics

April

April 6, 1896 – Discovery of Radioactivity Published

Henri Becquerel published his discovery of radioactivity in uranium salts. This marked the beginning of nuclear physics and would later inspire the work of Marie Curie and others.

April 12, 1961 – First Human in Space

Soviet cosmonaut Yuri Gagarin became the first human to orbit Earth. This event combined rocket physics, orbital mechanics, and marked a historic milestone in applied physics and space exploration.

April 25, 1954 – Bell Labs Demonstrates First Solar Cell

The first practical photovoltaic (solar) cell was publicly demonstrated. It was a breakthrough in quantum and semiconductor physics, opening the door to modern solar energy.

May

May 11, 1995 – Nuclear physics & India's scientific milestone

Under the code name "Operation Shakti", India conducted a successful series of nuclear tests in Pokhran. These tests demonstrated the nation's mastery over nuclear physics and global recognition in the atomic research sphere.

May 16, 1960 – The birth of the laser

Physicist Theodore Maiman fired the first successful laser at Hughes Research Labs. Based on Einstein's stimulated emission theory, this invention revolutionized optics, medicine, communications, and more.

May 29, 1919 – Einstein's Theory of General Relativity Proven

During a total solar eclipse, Arthur Eddington observed starlight bending around the sun, confirming Einstein's prediction. This iconic experiment brought general relativity into global spotlight and reshaped our understanding of gravity.

June

June 1, 1796 – First Use of the Term "Physics" in Modern Science

The term "physics" gained its formal identity in English texts around this time, distinguishing it from natural philosophy and giving rise to the structured science we know today.

June 10, 1854 – George Stokes Presents Stokes' Theorem

Mathematician and physicist George Stokes formally presented the theorem that bears his name—vital to electromagnetism and fluid dynamics.

June 30, 1908 – Tunguska Event

A massive explosion caused by a meteoroid airburst over Siberia released energy equal to 1,000 Hiroshima bombs. Physicists still analyze it for atmospheric impact studies and cosmic physics.

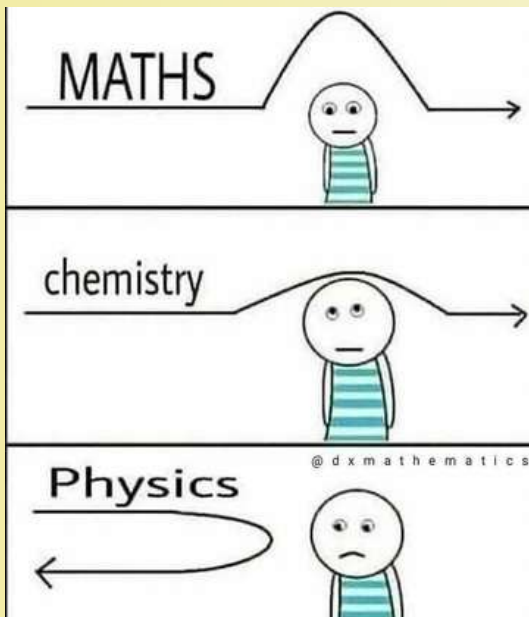
Quirks of Physics

Dating sites hate him



Attract anyone with
this easy trick

$$\begin{aligned}\frac{dx}{dt} &= \sigma(y - x), \\ \frac{dy}{dt} &= x(\rho - z) - y, \\ \frac{dz}{dt} &= xy - \beta z.\end{aligned}$$



Physics textbooks:

Assume that a penguin is a circular cylinder

Physics students:



ResisThor

CapaciThor



InduThor

TransisThor

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Upcoming Event

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INTERNATIONAL CONFERENCE ON APPLIED MATERIALS, QUANTUM AND NUCLEAR SCIENCES (ICAQNS 2025)

17 Date: 11-12 September 2025: Hybrid Mode

Venue: Department of Physics, School of Physical and Biological Sciences, FoSTA, Manipal University Jaipur, India.
For more details please visit: Website: <https://icaqns.co.in/>

OBJECTIVES

The International Conference on *"Applied Materials, Quantum and Nuclear Sciences (ICAQNS2025)"*, to be organised by the **Department of Physics, School of Physical and Biological Sciences, FoSTA, Manipal University Jaipur**, in international collaboration with the **Institute of Theoretical and Computational Physics (ITCP), University of Crete, Greece**. This collaborative initiative aims to create a premier global platform for researchers, academicians, scientists, and industry professionals to share their latest research findings, innovations, and technological advancements in *Applied Materials, Nuclear and Quantum Sciences*, fostering collaboration and knowledge exchange among experts worldwide.

- **Call for Papers:**
- Submit abstracts/full papers for oral or poster presentation. Awards will be given under **"Best Paper"** and **"Outstanding Research"** categories.
- All presented papers will be published in a **Scopus-indexed book series**.
- Selected high-quality papers may be published in **Q2/Q3 Scopus journals (e.g., Chemical Physics Impact)** after peer review.
- APC applies for journal publication, with special discounted rates for accepted submissions.
- **Important Dates:**
- Abstract Submission Deadline: 1st July, 2025
- Full Paper Submission Deadline: 10th August 2025
- Notification of Acceptance of Abstract: 10th July 2025
- Early Bird Registration Deadline: 15th July 2025



National Participants

International Participants

Registration Form

Payment QRs

Conference Themes and Topics

- **Condensed Matter and Material Physics:**
 - Advanced nanomaterials and their applications
 - Liquid crystals and their emerging technologies
 - Nanomaterials for energy storage and conversion
- **Quantum Mechanics and Computational Approaches:**
 - Quantum field theory and its applications
 - Computational physics and numerical simulations
 - Statistical mechanics and thermodynamics
- **Spectroscopy and Optical Studies:**
 - Material characterization using spectroscopy techniques
 - Photonic materials and laser applications
 - Nonlinear optics and quantum optics
- **Nuclear and Radiation Physics:**
 - Nuclear Structure and Nuclear Reaction Dynamics
 - Nuclear Instrumentation and Detector Technologies
 - Radiation Dosimetry, Radiation Protection and Applications
 - Reactor Physics and Nuclear Energy for Sustainable Development
- **Space and Plasma Physics:**
 - Plasma waves and instabilities in planetary atmospheres
 - Magnetohydrodynamics (MHD) in astrophysical systems
 - Advances in plasma simulation techniques and modelling
 - Space weather forecasting and modelling
- **Registration Fees:**
 - The registration fees include access to the conference, publication in the Abstract Book, accommodation, lunch, and conference kits.
 - **Students (UG/PG/PhD):** INR 3000 / USD 75
 - **Faculty and Researchers:** INR 4000 / USD 100
 - **Industry Professionals:** INR 5000 / USD 150
 - **International Participants:** USD 200

In Case of any queries, Please contact with us;
Mail - icaqns2025@gmail.com
• Dr. Debanjan Bhattacharjee (+91 8787794713)
• Dr. Abhik Mukherjee (+91 7439398145)
• Dr. Shashi Shekher Tiwary (+91 9621629640)

PRATHAM

Meet the Editors



Shefali Pareek
Research Scholar



Sandeep Kumawat
Research Scholar



Kritika Garg
Research Scholar



Aashima Sharma
Research Scholar

Editorial Advisor



Dr. Manoj Kumar Saini
Associate Professor