



24th

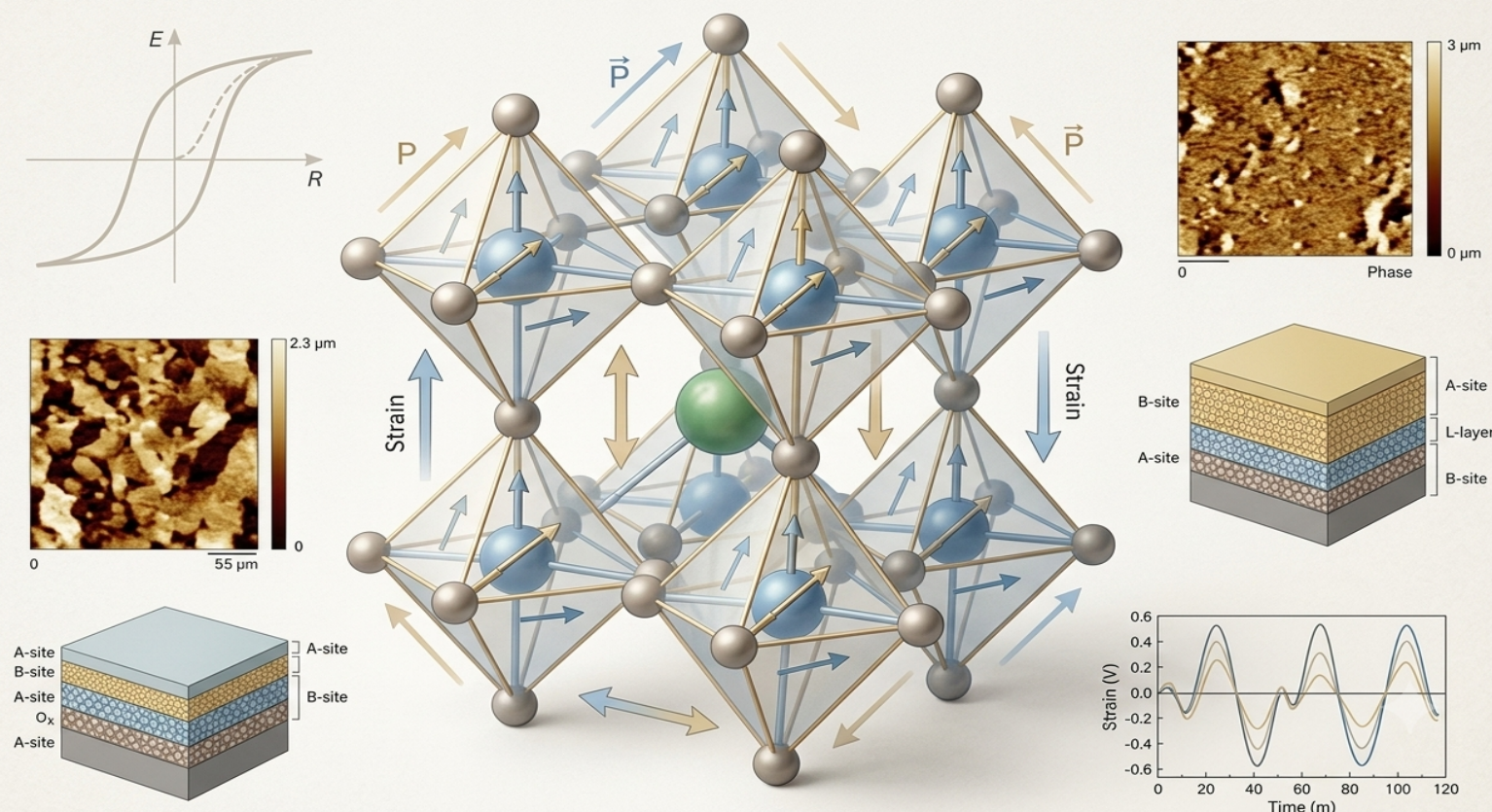
National Seminar on



Ferroelectrics and Dielectrics

(24th NSFD-2026)

November 26-28, 2026



Organized by:

Department of Physics
Jai Prakash University, Chapra
Bihar - 841301

E-mail: - nsfd2026jpu@gmail.com

Website: <https://www.jpj.ac.in/nsfd-2026>

About NSFD

The National Seminar on Ferroelectrics and Dielectrics (NSFD) is a premier biennial conference that has been promoting research and innovation in ferroelectrics, dielectrics, piezoelectrics, pyroelectrics, and related functional materials since its inception in 1980 at the Indian Institute of Technology, Delhi. Over the past 45 years, NSFD has become a leading national forum for scientists, academicians, researchers, and industry experts to share recent advances and foster collaborations. The seminar covers both fundamental and applied aspects of dielectric and ferroelectric materials, which are essential for emerging technologies such as sensors, actuators, capacitors, energy harvesting, data storage, power electronics, wireless communication, and smart electronic devices. The technical program includes plenary and invited lectures, oral and poster presentations, and tutorial sessions designed to encourage interaction, knowledge exchange, and the development of young researchers. NSFD continues to play a vital role in advancing research and strengthening the scientific community in this rapidly evolving field.

About The University

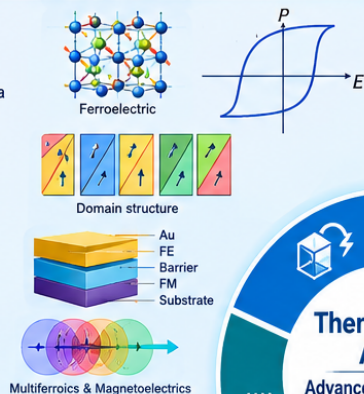
Jai Prakash University was established in 1992 under Section 3(b) of the Bihar State Universities Act, 1976 with its headquarters at Chapra, after being split from Bihar University (now B.R.A. Bihar University) Muzaffarpur. The University covers Saran Division, including Chapra, Siwan, and Gopalganj. There are 49 constituent colleges and 12 affiliated colleges, of which 2 are deficit grant Colleges, including one minority college.

About The Department

The Department of Physics, Jai Prakash University, established in 2005, offers undergraduate and postgraduate programmes in Physics under the CBCS and NEP 2020 frameworks. The department is supported by the DST-FIST programme of the Department of Science and Technology (DST), Government of India, which has significantly strengthened its research infrastructure. With active research in condensed matter physics, ferroelectrics and dielectrics, nanotechnology, and astrophysics, the department has a dedicated faculty and more than 50 research scholars engaged in cutting-edge scientific research.

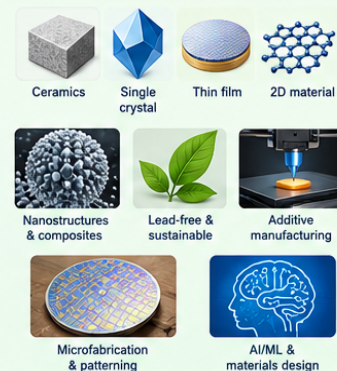
I. Fundamentals of Dielectrics, Ferroelectrics, and Functional Materials

- ▶ Ferroelectric, antiferroelectric and relaxor dielectric materials
- ▶ Relaxor and bi-relaxor ferroelectrics: disorder, phase transitions and critical phenomena
- ▶ Domain structures, domain-wall engineering and topological polarization states
- ▶ Ionic and electronic transport phenomena in ferroelectrics
- ▶ Surface, interface and size-dependent effects
- ▶ Multiferroics, magnetoelectrics and magnetodielectric materials
- ▶ Ferroelectric tunnel junctions, spintronics and resistive switching
- ▶ Emerging quantum and topological phenomena in functional materials



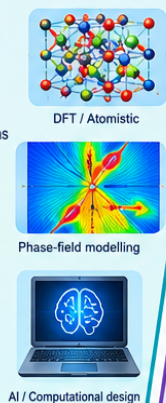
II. Materials Design, Processing and Advanced Manufacturing

- ▶ Bulk ceramics, single crystals, thin films, 2D materials, and multilayer structures
- ▶ Nanostructured materials and nanocomposites
- ▶ Lead-free piezoelectric and environmentally sustainable materials
- ▶ Hybrid, bio-inspired and multifunctional materials
 - ▶ Advanced synthesis and low-temperature/energy-efficient processing
- ▶ Additive manufacturing, microfabrication and patterning technologies
- ▶ Interface engineering, defect chemistry and textured materials
- ▶ Materials discovery using artificial intelligence and machine learning



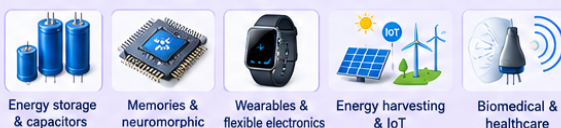
V. Theory, Simulation and Computational Materials Science

- ▶ Phenomenological and thermodynamic modelling
- ▶ First-principles (DFT), ab initio and atomistic simulations
- ▶ Phase-field modelling of ferroelectric domains
- ▶ Multiscale modelling of dielectric and ferroic materials
- ▶ Machine learning, artificial intelligence and high-throughput materials design
- ▶ Digital twins and computational approaches for functional materials
- ▶ Modelling of electronic, magnetic, optical and electromechanical properties



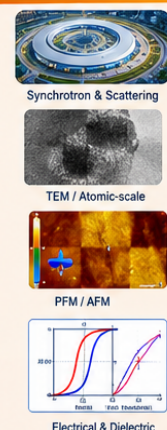
IV. Devices and Applications of Functional Dielectric Materials

- ▶ Energy storage dielectrics and high-energy-density capacitors
- ▶ Ferroelectric memories, neuromorphic and logic devices
- ▶ Piezoelectric materials, MEMS/NEMS, sensors and actuators
- ▶ Pyroelectric and thermoelectric devices
- ▶ Electrocaloric and solid-state cooling technologies
- ▶ Flexible, wearable and printed electronic devices
- ▶ Photonic, optoelectronic and electro-optic materials
- ▶ Biomedical materials, ultrasound transducers and healthcare applications
- ▶ Smart materials for energy harvesting, IoT and harsh-environment applications



III. Advanced Characterization and Functional Properties

- ▶ X-ray, neutron and synchrotron scattering techniques
- ▶ Electron microscopy, in-situ/operando characterization and atomic-scale imaging
- ▶ Raman, FTIR, THz and optical spectroscopies
- ▶ Scanning probe microscopy (PFM, AFM, MFM, KPFM and related techniques)
- ▶ Synchrotron-based characterization
- ▶ Electrical, dielectric, ferroelectric, Magnetic, and electromechanical measurements
- ▶ Spectroscopic investigation of electrochemical and interface phenomena
- ▶ Time-resolved and multimodal characterization techniques
- ▶ Data-driven characterization and materials informatics



National Advisory Committee

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List of Speakers (Tentative)

Prof. A. R. Kulkarni

Prof. R. P. Tandon

Prof. Rajiv Prakash

Prof. V. R. K. Murthy

Prof. H. L. Bhat

Prof. K. K. Raina

Prof. R. Chatterjee

Dr. Chandra Prakash

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Prof. D. K. Pradhan

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Prof. Jai Singh

Prof. Avijit Ghosh

Dr. Ajay Kumar Himanshu

Dr. P. K. Maiti

Dr. Raju Prakash

Dr. R. K. Dwivedi

Dr. Smita A. Acharya

Dr. Rahul Singhal

Dr. Ayush Khare

Dr. M. N. Tripathi

Dr. Ram Janay Choudhary

Dr. Dinesh Kumar Shukla

Dr. Komal Bapna

Prof. Gajendra Prasad Singh

Dr. Maheswar Panda

Prof. Ram. S. Katiyar

Prof. Ramanathan Mahendiran

Prof. Panagiotis Grammatikopoulos

Dr. Dhiren K. Pradhan

Dr. Ranveer Singh

Dr. Nikhil Bhalla

Dr. D. Chandrasekhar Kakarla

Dr. Deepak Patil

Dr. Kapil Dhaka

Call for Papers/Abstracts

The organizers invite papers from students, teachers, scientists and researchers in academia and industry to present the results of their research and development efforts in the field of Physics, Chemistry, Materials Science, & Engineering. Papers must report original academic or industrial research in any topics not limited to but relevant to the conference.

Authors Guideline

The researcher should submit their paper with Times New Roman, 12 point, fonts in Windows-based Microsoft Word (.doc/.docx) document by google form. The manuscript shall be reviewed by a peer committee. Selected manuscripts will be accepted for oral presentation. After the conference, the authors are required to submit the full paper again through the link provided by organizers. All the templates and detailed guidelines are available at website <https://www.jpv.ac.in/nsfd-2026>. The selected papers will be published in a Scopus Indexed Journal (with publication fee and after peer review).

Registration

Registration is pre-requisite for attending the conference and presenting a paper. The registration fee includes cost of seminar materials, lunches, and coffee/tea. Registration form and fee should be submitted on or before 20.11.2026 through online mode only.

Registration Fee Details

Category	Before 20.11.2026	Late After 20.11.2026
Students (UG & PG)*	500/-	800/-
Research Scholar/PDF	1000/-	1500/-
Faculty/Academicians	2000/-	2500/-
Industry Participants	3000/-	3500/-
Foreign Delegates	\$50	\$55

*Seminar Kit not included for Students Category registration

Note: Spot Registration- Late fee + Rs 100/

Registration Form Link

Registration form should be filled up using the following Google form link:



<https://forms.gle/vKxHZpEVA4nSpUTV7>

Important Dates

Abstract Submission Starts	01.08.2026
Abstract Submission Ends	10.11.2026
Acceptance Notification	15.11.2026
Last date of Registration	20.11.2026
Accommodation request	20.11.2026

Payment Details

Bank Name: Central Bank of India

Branch: Malamirza Tukra, Chapra

A/c Name - NSFD 2026 JPU

Account No. - 4125522109

IFSC Code - CBIN0283917

Registration fee bar code:



UPI ID : 3917202608060001@cbi



NSFD 2026 JPU

Accommodation

Limited accommodation facilities will be arranged for invited speakers, delegates, and registered participants at suitable guest houses/hostels and nearby hotels, subject to availability. Accommodation will be provided on a first-come, first-served basis upon prior request and confirmation. Participants are requested to indicate their accommodation requirements during registration. The accommodation charges, if applicable, will be borne by the participants. Detailed information regarding accommodation, tariffs, and booking procedures will be communicated by the Organizing Committee to the registered participants.

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***Best Oral Presentation and Best Poster Presentation Awards will be conferred in recognition of outstanding scientific contributions and excellence in presentation.**

Contact Details

Prof. Gun Sagar Yadav

Convenor, 24th NSFD-2026

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