International Conference on Advances in Physics (ICAP)-2025

Venue:
Shahjalal University of Science and Technology
Sylhet-3114, Bangladesh

Date:
17–18 December 2025

Mode:
Hybrid (online and in-person)

Important Dates:

Abstract Submission Deadline: 20 September 2025
Notification of Acceptance: 20 October 2025
Early Bird Registration Deadline: 5 November 2025
Regular Registration Deadline: 10 December 2025

https://icap2025.sust.edu/

Department of Physics
Shahjalal University of Science and Technology, Sylhet-3114

The Department of Physics, Shahjalal University of Science and Technology (SUST), Sylhet-3114, Bangladesh, is pleased to announce the International Conference on Advances in Physics (ICAP 2025) to be held on 17–18 December 2025.

This conference will serve as a vibrant platform for physicists, researchers, technologists, educators, and students to exchange knowledge, present breakthrough research, and foster interdisciplinary collaborations. The event will be conducted in a hybrid mode, offering both online and in-person participation, for greater accessibility and global reach.

We invite researchers, educators, and professionals to submit extended abstracts for oral and poster presentations that reflect original research, emerging innovations, or significant developments in the field of physics.

Registration Fees:

Category	Early Bird Fee	Regular Fee
International Professionals	USD 300	USD 400
International Students	USD 150	USD 200
Local Professionals	BDT 4,000	BDT 5,000
Local Students	BDT 2,000	BDT 2,500

Registration includes access to all sessions, conference materials and participation certificates.

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Scope of the Conference:

ICAP 2025 covers a wide range of contemporary and emerging topics in physics, including but not limited to:

1. Theoretical, Mathematical, and High-Energy Physics
- Quantum field theory, gauge symmetries, and unified models
- Precision tests of the Standard Model
- Beyond the Standard Model physics and collider phenomenology
- String theory, supersymmetry, and quantum gravity
- Mathematical foundations and computational modeling in theoretical physics

2. Nuclear, Particle, and Reactor Physics
- Nuclear structure, reactions, and nuclear astrophysics
- Neutrino physics, detectors, and rare event searches
- Particle detectors, instrumentation, and accelerator technology
- Reactor physics, nuclear energy technologies, and safety modeling

3. Condensed Matter, Magnetic, and Quantum Materials
- Strongly correlated systems and quantum phase transitions
- Topological insulators, 2D materials, and Hall systems
- Magnetism, spintronics, and emergent phenomena in magnetic materials
- Superconductivity, low-dimensional systems, and quantum transport
- Low temperature physics

4. Photonics, Optics, and Laser Science
- Nonlinear optics, quantum optics, and optoelectronics
- Photonic materials, devices, and integrated optics
- High-intensity laser-matter interaction and ultrafast optics
- Laser diagnostics, spectroscopy, and applications in science and medicine

5. Nanoscience, Microelectronics, and Quantum Technologies
- Nanostructures, nanofabrication, and quantum confinement
- Nanoscale measurement techniques
- Semiconductor physics, micro/nanoelectronic devices, and organic electronics
- Quantum computing, simulation, and quantum information science

6. Atomic, Molecular, and Plasma Physics
- Cold atoms, Bose-Einstein condensates, and quantum gases
- Atomic collisions, molecular dynamics, and precision spectroscopy
- Plasma physics, fusion technology, and astrophysical plasmas

7. Astrophysics, Cosmology, and Space Physics
- Black holes, compact objects, and gravitational waves
- Dark matter, dark energy, cosmic inflation, and large-scale structure
- Stellar evolution, cosmological observations, and space plasmas
- Multi-messenger astronomy and observational instrumentation

8. Earth, Atmospheric, and Environmental Physics
- Atmospheric dynamics, meteorology, and geophysics
- Climate modeling, radiation transport, and environmental monitoring
- Remote sensing, earth observation, and sustainable technologies

9. Computational Physics
- Modeling and simulation of complex physical systems
- High-performance computing and numerical methods
- Machine learning and AI applications in physics research

10. Medical, Health and Biophysics
- Medical physics, health physics, and biomedical imaging
- Biophysics of cells, tissues, and molecular systems
- Nonlinear Bio-optics
- Bio-Heat and Hemodynamics

11. Physics Education, Outreach, and Policy
- Innovative pedagogy and curriculum development in physics
- Digital tools, simulations, and e-learning platforms
- Public engagement, science outreach, and research policy frameworks

Abstract Submission

Extended abstracts (maximum 300 words, in .doc/.docx format) are requested to submit via the official submission portal. Submission guidelines and abstract templates are available on the official conference website: https://icap2025.sust.edu.

Contact Info

Convener: +8801718-440 675
Treasurer: +8801712-979 269
Conference Secretary: +8801717-266 867
email: icap@sust.edu