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International Conference
on
Emerging Trends in Complex Systems, Advanced Materials and Photonics (IC-ETCMP-2025)
Hybrid Mode
27th -28th February, 2025
Jointly Organized By




Department of Pure and Applied Physics
Guru Ghasidas Vishwavidyalaya
(A Central University Accredited with NAAC A++ , QS and THE world Rankings)
Bilaspur, Chhattisgarh, INDIA



The State University of New York,
University at Albany, USA



Indian Institute of Science Education and Research (IISER), Mohali, INDIA



Registration Details
Registration Fees

Type of Participant	National (INR)		International (USD)	
	Offline	Online	Offline	Online
Faculty/Scientists/Delegates from industry	4500	1000	100	60
Students	1500	500	50	25

Registration Link:
<https://forms.gle/NLEC1GcpeJyg4sBq8>

Bank Details
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Branch: Lodhipara, Koni
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About the Conference

The International conference on “*Emerging Trends in Complex Systems, Advanced Materials and Photonics (IC-ETCMP-2025)*” aims to bring together leading experts from diverse scientific disciplines in a hybrid mode to explore the fundamental principles, methodologies, and applications of various physical phenomena. As the real-world occurrences often operate out of equilibrium, the study of such systems is crucial for understanding complex behaviors in fields ranging from statistical mechanics, thermodynamics, active and synthetic materials to biological systems and quantum technologies. This conference will focus on recent advancements in non-equilibrium statistical mechanics, physics of active matter, material science, terahertz radiation, fiber and nonlinear optics. Key topics will include the dynamics of phase transitions, multi-scale modelling and simulations, applications and properties of advanced materials and progress in terahertz and fibre optics. Additionally, the conference will highlight interdisciplinary ideas and research in different areas where non-equilibrium processes are central to emerging technologies. By fostering collaboration between physicists working in diverse fields, the conference aims to deepen our understanding of the intricate mechanisms governing non-equilibrium dynamics and to inspire innovative solutions for contemporary scientific challenges.

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IC-ETCMP-2025
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Last Date of Registration:
20th February, 2025

GGV Web Links

<https://www.new.ggu.ac.in/>
<https://maps.app.goo.gl/iBxAFybZtpXEgZsd7>

Call for papers

We invite the scientific community to participate and present your original research findings, Preliminary results, Reviews, Reports, perspectives in International Conference on Emerging Trends in Complex Systems, Advanced Materials and Photonics (IC-ETCMP-2025) Date: Feb 27 and 28, 2025 (2 days). Following is the list of themes; however, we welcome any type of scientific contribution, which can make a significant impact at International level

Theme 1: Complex systems

- Kinetics of Phase Separation
- Dynamics of granular gases
- Physics of amorphous solids, glasses and polymers
- Colloids, Living liquid crystals and Disordered and nonlinear systems
- Multiscale modelling and simulations

Theme 2: Materials for Nuclear Physics

- Nuclear Reactor Materials
- Radiation-Resistant Materials
- Materials for Nuclear Waste Management
- Detectors and Measurement Devices

Theme 3: Advanced Materials

- Nanostructured Materials for Advanced Applications
- 2D Materials and Beyond: Synthesis, Properties, and Applications
- Smart and Functional Materials for next-generation devices
- Materials for Sustainable Energy and Environment
- Advanced Composites and Hybrid Materials
- Emerging Trends in Biomaterials and Bio-Inspired Materials
- Quantum and Topological Materials
- Density functional theory and computation

Theme 4: Optics and Photonics

- Advances in Photonic Materials and Devices
- Integrated Photonics: Towards Miniaturization and Scalability
- Nanophotonics and Plasmonics
- Quantum Photonics: Enabling Next-Generation Technologies
- Photonics for Renewable Energy and Sustainability
- Advanced Optical Sensing and Imaging Technologies
- Ultrafast and Nonlinear Photonics
- Terahertz radiation sources and detectors
- Quantum Cascade lasers
- Optical fiber design for 6G applications
- Design and Fabrication of Specialty Fibers
- Fiber Lasers and Fiber Amplifiers

Key speakers



Prof. Alexander Khmaladze,
The State University of New York,
Albany, USA

Prof. Alexander Khmaladze is renowned scientific expert in Raman spectroscopy and microscopy, three-dimensional digital holographic imaging, microscope design, hyperspectral imaging of live cells and biological tissue imaging.



Dr. Martin Wienold
German Aerospace Center
(DLR), GERMANY

Dr. Martin Wienold is a renowned Scientist working in German Aerospace Center (DLR) Germany where he is collaborating with National Aeronautics and Space Administration (NASA), USA on terahertz quantum cascade lasers and applications.



Prof. Luca Varani,
University of Montpellier,
FRANCE

Prof. Luca Varani is head of the research group TeHO (TeraHertz, High-Frequency and Optics) of the Institute of Electronics and Systems (IES). His main research activities are in theoretical and experimental transport phenomena with a special attention to the terahertz frequency range.



Dr. Deepak Kumar
University of Leeds, UK

Dr. Deepak Kumar is currently working as a Research Scientist in University of Leeds, UK His research interests are terahertz technology, metamaterials, metasurfaces, ultrafast optics, novel materials, plasmonics, photonics, electromagnetic.

Key Speakers



Prof. Sanjay Puri
Jawaharlal Nehru
University, New Delhi, INDIA

Prof. Sanjay Puri is a statistical physicist. His core research area belongs to non-equilibrium statistical physics with special focus on pattern formation, phase transitions, phase separation and granular materials. Prof. Puri is a recipient of numerous prestigious awards including Shanti Swarup Bhatnagar Prize (2006) and J. C. Bose National Fellow (2012).

Guide to submit abstracts:

Best poster awards will be conferred.

At this stage, upload only ms word file of abstract (maximum 1 page) by using following weblink
<https://forms.gle/NLEC1GcpeJyg4sBq8>

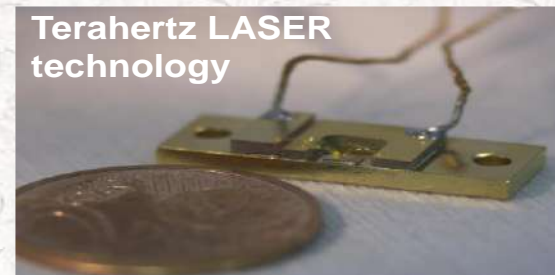
Frontiers in Advanced Optical Technologies Journal (Impact factor 2.3)

Separate guidelines will be released latter by the Journal. Only selected peer reviewed articles will be published in Frontiers in Advanced Optical Technologies Journal (Impact factor 2.3) according to the terms and conditions of the Journal. **The authors need not to pay any additional fee of Journal.**

The research papers submitted should be full length journal articles, and must be extended to include 30% original content from the conference versions to be considered for publication. For more details, please click
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The details of the other SCOPUS Index Journals will be released latter.

Terahertz LASER technology



Ultrafast lasers

