

ABOUT ICNCS 2025

Nonlinear Complex Systems, a domain within mathematics and physics, focuses on systems governed by nonlinear equations or laws. This field studies systems that exhibit intricate behaviors and often manifest chaotic patterns, characterized by their sensitivity to initial conditions. Researchers in this field apply its principles across various disciplines such as engineering, biology and economics, offering insights into complex dynamics that defy simple linear explanations.

This conference will focus on, but not limited to:

- Computational and data driven intelligence
- Nonlinear dynamics and complex systems
- Networks and control systems
- Modeling of physical and biological systems
- Graph based neural networks
- Quantum computing in dynamical systems
- Soft computing and fuzzy theory

ABOUT THE SCHOOL

The School of Advanced Sciences (SAS) at Vellore Institute of Technology (VIT) Chennai, comprises Department of Mathematics, Physics and Chemistry. It offers the following programmes:

- ✓ Ph.D
- ✓ M.Sc Data Science, M.Sc Physics, M.Sc Chemistry

The school also offers a plethora of core and elective courses facilitating B.Tech, M.Tech, MCA, Integrated M.Tech, Management and Law programmes.

VELLORE INSTITUTE OF TECHNOLOGY

VIT was founded in 1984 as Vellore Engineering College, a self-financing institution dedicated to providing quality higher education. In 2001, the Union Ministry of Human Resource Development conferred university status on the institution under Section 3 of the University Grants Commission (UGC) Act, 1956. VIT is led by its visionary Founder and Chancellor, Dr. G. Viswanathan, a former Parliamentarian and Minister in the Government of Tamil Nadu. In recognition of his exceptional contributions to education, Dr. G. Viswanathan was awarded an honorary doctorate by West Virginia University (USA) in 2009 and the State University of New York (USA) in 2024. With a commitment to delivering world-class education on par with international standards, VIT continually adopts innovative approaches to teaching and research. Our Memoranda of Understanding with various international universities, being a major strength, enable meaningful collaborations via student and faculty exchanges and foster joint research projects. Many of our students, working in international organizations and universities, deliver high-quality solutions and conduct research that bring esteem to India and make us proud of our legacy. At VIT, the pursuit of excellence in

education and research is complemented by a dynamic ecosystem of innovation, research and global engagement. As we advance steadily, we remain steadfast in our mission to nurture leaders and innovators who can make a meaningful impact on the world.

VIT CHENNAI

VIT Chennai was established in 2010 and has since become a beacon of excellence in higher education. Spearheaded by Vice-President Dr. G. V. Selvam, a pioneering visionary who laid the foundation of VIT Chennai, he is an insightful architect of its evergreen campus and an ingenious leader whose comprehensive vision and mission have shaped its growth. Under his guidance, VIT Chennai has rapidly evolved into a hub of innovation and academic distinction. The leadership team, including Vice-Chancellor Dr. V. S. Kanchana Bhaaskaran, Pro-Vice Chancellor Dr. T. Thyagarajan, Director Dr. K. Sathiyarayanan and Additional Registrar Dr. P. K. Manoharan, drives its mission of delivering transformative education and impactful research. Strategically located in the capital city of Tamil Nadu, VIT Chennai is a globally engaged, competitive, and research-enriched institution.

VIT Chennai proactively addresses industrial, social, economic and environmental challenges, fostering application-based learning that produces industry-ready professionals. Known for its cosmopolitan atmosphere, VIT Chennai attracts students from across the globe, fostering a vibrant and multicultural community. Committed to maximizing industrial connectivity and establishing Centers of Excellence in cutting-edge research areas, VIT Chennai enriches technological and managerial human capital through a collaborative and inclusive academic environment. It serves as a platform for intellectual exchange, encouraging the convergence of diverse ideas to drive innovation and learning. Dedicated to societal and industrial advancement, VIT Chennai leverages its resources to benefit the community, supports national knowledge-building initiatives and fosters international collaborations for mutual progress in research and education. With a clear vision and an unwavering mission, VIT Chennai continues to redefine the landscape of higher education in India and beyond.

PUBLICATION

We are presently engaging with journals indexed in **SCI/SCIE and SCOPUS** as well as checking the possibility of publishing as a conference Proceedings. An updated list of these journals will be furnished later in the website <https://icncsvit.in/icncs-2025/publication/>



VIT
CHENNAI



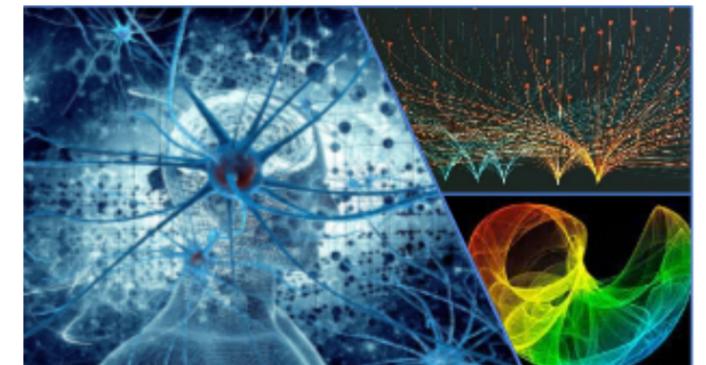
ICNCS 2025

2nd International Conference on Emerging Frontiers in Nonlinear Complex Systems, Computational Intelligence and their Applications
(Hybrid mode)

08 - 10th OCTOBER, 2025

Supported by

Anusandhan National Research Foundation (ANRF)



Convener

Dr. A. Manivannan
(+91 98940 91336)

organized by

Department of Mathematics
School of Advanced Sciences
Vellore Institute of Technology, Chennai

To Register : <https://icncsvit.in/>

✉ icncsvit@gmail.com

VIT - A Place to Learn; A Chance to Grow

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Dr. T. Thyagarajan, Pro-Vice Chancellor, VIT, Chennai
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Prof. P. Muthukumar, The Gandhigram Rural Institute (Deemed to be University), India

CALL FOR PAPERS

- Classical and fractional differential equations
- Machine learning in nonlinear dynamics
- Artificial intelligence (AI) in mathematical perspective
- Quantum computing in dynamical systems
- Soft computing & fuzzy theory
- Algebraic methods and graph theory in network dynamics
- Classical and fractional order models for computer vision
- Control theory and its applications
- Multi-agent systems with game theory
- Computational models for biological systems
- Stability and bifurcation analysis of dynamical systems
- Fractal theory and its applications
- Synchronization and state estimations
- Numerical analysis and development of algorithms
- Chaos in fluid dynamics
- Computational fluid dynamics
- Stochastic modeling of complex systems
- Time-delays/uncertainties phenomena

INVITED SPEAKERS

Prof. Jürgen Kurths, Humboldt University, Germany
Prof. G. P. Raja Sekhar, Andhra University, India
Prof. Maithili Sharan, IIT Delhi, India
Prof. M. Lakshmanan, Bharathidasan University, India
Prof. P. Kandasamy, Bharathiar University, India
Prof. Kurunathan Ratnavelu, UCSI University, Malaysia
Prof. K. Balachandran, Bharathiar University, India
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Prof. Chee Peng Lim, Swinburne University of Technology, Australia
Prof. Fathalla Ali Rihan, UAE University, UAE
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Prof. Praveen Agarwal, Anand International College of Engineering, India
Prof. Sanjeewa Perera, University of Colombo, Sri Lanka
Prof. R. Rakkiyappan, Bharathiar University, India
Prof. P. Muthukumar, The Gandhigram Rural Institute (Deemed to be University), India
Prof. Hemen Dutta, Gauhati University, India

Important Dates for Paper

Abstract submission	23-08-2025 to 16-09-2025
Acceptance notification	18-09-2025
Full paper submission	19-09-2025 to 30-09-2025

Category	Early Bird Registration (on or before 29-09-2025)		Late Registration (30-09-2025 to 02-10-2025)	
	Physical Mode	Virtual Mode	Physical Mode	Virtual Mode
Indian Academicians /Industry Delegates	₹ 4500	₹ 3750	₹ 5000	₹ 4250
Research Scholars	₹ 3500	₹ 2550	₹ 4000	₹ 3050
UG/PG Students	₹ 2500	₹ 2250	₹ 3000	₹ 2750
Foreign Delegates	\$ 120	\$ 100	\$ 150	\$ 130
Participation Only	₹ 2000	₹ 1550	₹ 2500	₹ 2050

*GST is included in the registration fees.

ABSTRACT SUBMISSION GUIDELINES

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ACCOMMODATION

Accommodation for the participants will be arranged on payment basis inside the campus, if required.

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MEMBERS

All faculty members and research scholars of the Department of Mathematics, SAS, VIT, Chennai.