

ABOUT THE SCIENCE ACADEMIES

Indian Academy of Sciences

The Indian Academy of Sciences (IASc), Bangalore was founded in 1934 by C.V.Raman, a noble Laureate. Its objectives include promoting the progress of Science in pure and applied branches. Major activities include organizing meeting for discussions on vital topics, scientific journals publication, recognizing scientific talent, improvement of science education and taking up other issues of concern to the scientific community.

Indian National Science Academy

The Indian National Science Academy (INSA), New Delhi founded in 1935, is a premier science academy in the country. INSA plays crucial role in promoting, recognizing and rewarding excellence. It works towards coordination among scientific bodies, promoting and safe guarding the interest of scientist besides publishing journals and proceedings and managing funds for promotion of science.

The National Academy of Sciences

The National Academy of Sciences (NASI), Allahabad was founded in 1930. The main objective of the academy is to provide the National Forum for the publication of research work carried out by Indian Scientist. NASI promotes Scientific and technological research, organize meetings and hold discussions on scientific and technological problems besides managing funds and endowments for the promotion of Science and technologies.

ABOUT THE INSTITUTE

The Gandhigram Rural Institute (GRI), founded by two dedicated disciples and contemporaries of Mahatma Gandhi, Dr. G. Ramachandran and Dr. T. S. Soundaram Ramachandran, has as its foundation Mahatma Gandhi's revolutionary philosophy of Nai Talim, which effectively bridges the cognitive and practical dimensions, and focuses on the holistic development of learners, with an emphasis on skill development through value-based education, rooted in indigenous cultures and

traditions. Since its establishment in 1956, GRI has been unstintingly contributing to higher education and has successfully pioneered rural higher education. The curricular model developed at GRI organically integrating teaching, research, and extension has earned the Institute, the status of Deemed University in 1976 by UGC, the five-star status by NAAC in 2002, 'A' Grade during the reaccreditation in 2010 by NAAC and 'A' Grade in its third cycle of reaccreditation in the year 2016.

ABOUT THE DEPARTMENT

The Department of Mathematics was established in 1965 at The Gandhigram Rural Institute (Deemed to be University), Tamil Nadu. The major research fields being carried out in this department are Stability Problems of Dynamical Systems, including Neural Networks, Fractal Theory and its applications, Fuzzy Clustering in Medical Images, Optimization in Marketing related problems, Control theory, Graph Theory, Algebraic Graph Theory and Quantum Computing Algorithms. The department has published more than 820 research articles in SCI journals with SCOPUS citations of more than 14270. Funding for research and development has been provided by UGC, NBHM, CSIR and DST-SERB continuously for the past 17 years. As a result of consistent performance in research, the department was recently upgraded with UGC-SAP (DSA-I). International level research collaborations are being undertaken with universities in various countries, such as Deakin, Australia, Malaysia, Singapore, South Korea, UAE, and USA.

ABOUT THE WORKSHOP

The Sciences Academies' Lecture Workshop on Fundamentals and Advances in Quantum Dynamical Systems is carefully crafted to bridge knowledge gaps and deepen understanding of the systems for undergraduates, postgraduates, research scholars and faculty members. Also, an attractive physics subfield, quantum dynamics, is crucial for elucidating

fundamental physical phenomena and advancing transformative technologies like quantum computing, cryptography, and simulations. This workshop aims to inspire participants to pursue further research or careers in quantum computing by showcasing emerging opportunities and challenges. The main objective of this workshop is to introduce the participants to the foundational knowledge of quantum dynamical systems and offer insights into advanced theoretical and experimental techniques. By participating in this event, participants will gain a holistic view of the quantum dynamical systems landscape and be equipped with the knowledge and skills to contribute meaningfully to this swiftly evolving field of quantum technologies.

INVITED SPEAKERS

1. Dr. P. Kandaswamy, F.N.A.Sc.
Former Professor
Department of Mathematics
Bharathiar University, Coimbatore
2. Dr. M. Lakshmanan, F.N.A.Sc., F.A.Sc., F.N.A
Professor of Eminence &
DST-SERB National Science Chair
Department of Nonlinear Dynamics
Bharathidasan University, Tiruchirappalli
3. Prof. R. Balasubramanian F.N.A.Sc., F.A.Sc., F.N.A
Former Director
The Institute of Mathematical Sciences
CIT Campus, Chennai
4. Dr. V. Jayakumar, Ph.D, M.E, B.Tech, DIT
CEO / Founder, Anuthantra Pvt Ltd,
Bengaluru
5. Dr. P. Balasubramaniam, Ph.D, M.C.A., D.Sc.,
Senior Professor
Director, International Programme
Department of Mathematics
The Gandhigram Rural Institute
(Deemed to be University)
Gandhigram, Dindigul

REGISTRATION DETAILS

✚ Eligibility

This workshop is open to UG, PG students, research scholars and faculty members in Mathematics, Physics, Computer Science, and other related disciplines.

✚ There is No Registration Fees

✚ Only limited seats are available. Selected participants will be intimated through their registered e-mail.

✚ Working lunch and refreshments will be provided during the workshop.

✚ For Registration, apply through the link or scan the qr-code.



<https://forms.gle/xSSRuht8nw79s68KA>

IMPORTANT DATES

Last date of online registration - 14.02.2025
Intimation of Selection - 15.02.2025
Confirmation by Participants - 16.02.2025

ACCOMMODATION

A limited number of accommodations for the participants will be arranged on payment basis.

CONVENER

Dr. P. Kandaswamy, F.N.A.Sc.
Former Professor
Department of Mathematics
Bharathiar University
Coimbatore - 641 046
Tamil Nadu, India

COORDINATOR

Dr. P. Balasubramaniam
Senior Professor
Department of Mathematics
The Gandhigram Rural Institute
(Deemed to be University)
Gandhigram – 624 302
Dindigul, Tamil Nadu, India
Email: balugru@gmail.com

FOR QUERIES

☎ Mr. S. Vijayaram +91 98948 75747
☎ Mr. A. Sam Joshua +91 73393 68805

VENUE

Silver Jubilee Hall
The Gandhigram Rural Institute
(Deemed to be University)
Gandhigram – 624 302,
Dindigul, Tamil Nadu, India.



Science Academies' Lecture Workshop on Fundamentals and Advances in Quantum Dynamical Systems

organized by

Department of Mathematics
The Gandhigram Rural Institute
(Deemed to be University)
Gandhigram – 624 302,
Dindigul, Tamil Nadu, India.

20th - 22nd February 2025

Sponsored by



Indian Academy
of Sciences,
Bengaluru



Indian National
Science Academy,
New Delhi



The National
Academy of
Sciences, Prayagraj