

## **ABOUT THE COLLEGE**

Loyola College, Chennai was established in the year 1925 with 75 undergraduate students of Mathematics, History and Economics. The college was granted autonomy in 1978, and in, 2004, the UGC conferred upon it the status of a College with Potential for Excellence, which was reaffirmed in 2010. In recognition of its sustained excellence, the UGC elevated Loyola College to the status of College of Excellence for the period from I<sup>st</sup> of April 2014 to 31<sup>st</sup> March 2019.

Currently, the college hosts around 9,500 students across 24 undergraduate and 21 postgraduate departments, with research actively conducted in 15 of these departments. Loyola is committed to delivering quality education through a comprehensive range of academic programs, innovative teaching methodologies, and intensive research initiatives.

## **ABOUT THE DEPARTMENT**

With a legacy of excellence spanning more than a century, the department of mathematics has been at the forefront of mathematical education and research. Established in 1925 with the launch of the B.A. program in mathematics, the department introduced the Honors course in 1927, with the first batch of B.A. Honors students graduating in 1930. Over the years, the academic profile of the department expanded significantly with the commencement of M.Sc. mathematics program and the initiation of the research activities.

The department was recognized as a research department in 1984, marking a new phase of growth in advanced scholarship. In 1991, the Racine Research Centre was inaugurated to commemorate the birth centenary of Rev. Fr. Charles Racine S.J., D.Sc., a pioneer in the advancement of modern mathematics in India. Distinguished alumni of the department are Prof. M. S. Narasimhan, FRS, and Prof. C. S. Seshadri, FRS, founder and Director Emeritus of the Chennai Mathematical Institute, who earned worldwide recognition for their seminal work on the Narasimhan–Seshadri Theorem.

Current research areas within the department include:
Graph Theory
Theoretical Computation
Fuzzy Logic
Functional Analysis
Astronomy
Formal Languages and Automata Theory

## **ABOUT THE CONFERENCE**

The INTERNATIONAL CONFERENCE ON NEXT-GEN MATHEMATICAL SCIENCES (ICNMS 2025) brings together researchers, academicians, and industry professionals to explore the latest advancements in applied mathematics and its interdisciplinary applications. This inaugural edition aims to provide a global platform for innovation, collaboration, and knowledge exchange in the mathematical sciences. Building on the momentum of the conferences conducted in the name of ICRTAM since 2022, ICNMS 2025 seeks to further strengthen opportunities for scholarly interaction and collaboration.

The conference is designed to create a vibrant academic forum for young researchers, offering them the opportunity to present their latest research findings, share expertise and methodologies, and engage in meaningful discussions on the pivotal role of mathematics in addressing contemporary global challenges.

#### Conference features:

- Keynote addresses by eminent mathematicians from around the world
- Invited talks by leading experts
- Paper presentations by researchers
- Book chapter publication
- Publication opportunities in SCOPUS/SCI-indexed journals

### CALL FOR PAPERS

Authors are invited to submit the original and unpublished research articles in the following areas (but not limited to):

Graph theory and Combinatorics
Computational Mathematics
Fuzzy Logic and Analysis
Neural Networks
Communication Networks
Probabilistic and Randomized Algorithm

Automata Theory
Complexity Theory
Functional analysis
Differential Equations
Control Theory
Theoretical Computer Science

## **JOURNAL PUBLICATIONS**

The papers presented at the conference will be considered for publication in the following journals, in accordance with each journal's review and publication procedures.

- AKCE International Journal of Graphs and Combinatorics (Taylor & Francis) Impact Factor: 0.7
   (No APC)
- Symmetry (MDPI) Impact Factor: 2.2 (APC apply)

# **BOOK CHAPTER PUBLICATION**

All accepted papers will find publication as book chapter of ICNMS 2025 volume with ISBN, brought out by Emerald Publishers.

## **PAPER SUBMISSION** for Book Chapter Publication - GUIDELINES:

Authors with Affiliation.
Abstract with keywords (not more than 300 words).
Full Paper: Max 5 pages, Times New Roman, I2pt, I.5 spacing.
APA format references.

## STEERING COMMITTEE

### **PATRON**

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Loyola College, Chennai

Rev. Dr. M. Albert William SJ
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Loyola-ICAM College of Engineering and
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Dr. Chris Monica M & Dr. J. Janet Sheeba Assistant Professors Department of Mathematics Loyola College, Chennai

## **ADVISORY COMMITTEE**

- Dr. Sandi Klavžar, Faculty of Mathematics and Physics, University of Ljubljana, Slovenia.
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- Dr. B.J. Balamurugan, School of Advanced Sciences, Vellore Institute of Technology, Chennai, India.
- Dr. Teresa Arockiamary Santiago, Department of Mathematics, Stella Maris College, Chennai, India.

## **INVITED SPEAKERS**

#### Dr. S. ARUMUGAM

Adjunct Professor, Department of Computer Science and Engineering, Ramco Institute of Technology, Rajapalayam, India.

Eminence Professor, Ramanujan Centre for Applied Mathematics & Research, Department of Mathematics, Ramanujan College, University of Delhi, India.

#### Dr. XAVIER C

School of Engineering and Technology, Christ University, Bangalore, India.

#### **Dr. PAUL MANUEL**

Department of Information Science, College of Life Sciences, Kuwait University, Kuwait.

#### Dr. BALAMURUGAN PANDIYAN

Department of Mathematics, University of Wisconsin-Whitewater, USA.

#### Dr. NIKO TRATNIK

Faculty of Natural Sciences and Mathematics, University of Maribor, Slovenia.

#### **Dr. ANTONY KISHORE PETER**

Systems Engineering Department, Military Technological College (Ministry of Defense), Muscat, Sultanate of Oman.

#### Dr. A.K.B. CHAND

Department of Mathematics, Indian Institute of Technology Madras, Chennai, India.

#### Dr. V. LAKSHMANA GOMATHI NAYAGAM

Department of Mathematics, National Institute of Technology Tiruchirappalli, India.

#### Dr. P. SAM JOHNSON

Department of Mathematical and Computational Sciences, National Institute of Technology Karnataka, Surathkal, India.

#### Dr. SUSHMITA GUPTA

Department of Theoretical Computer Science, The Institute of Mathematical Sciences, Chennai, India.

#### Dr. DIMPAL JYOTI MAHANTA

Department of Mathematics, The Assam Kaziranga University, Jorhat, India.

### IMPORTANT DATES

**Abstract Submission for Oral Presentation** : November 10, 2025. : November 12, 2025. Submission of Full Paper for Book Chapter Publication : November 13, 2025. Acceptance **Registration & Payment** : November 15, 2025. **Full Paper Submission for Journal** : December 20, 2025.

### REGISTRATION FEE

Oral Presentation : Rs. I.000/-**Oral Presentation with Book Chapter Publication** : Rs. 1,300/-**Participation** : Rs. 600/-**Foreign Delegates** : 100 USD

Registration for Author and Co-author(s) / additional papers should be done separately.

## REGISTRATION LINK

https://erp.loyolacollege.edu/loyolaonline/conference/loginManager/youLogin.jsp

### WEBLINK

https:/sites.google.com/loyolacollege.edu/icnms2025

# **COMMITTEE MEMBERS**

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Dr. Y. Kins			Dr. S. Hei

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henbaga Devi Dr. S. Hema Surya

# Significance of ICNMS 2025

- Connect with Global Experts in Mathematics and Al.
- Discover Emerging Trends and Innovations in Mathematical Science.
- Explore the Role of Mathematics in Artificial Intelligence and Technology.
- Present and Publish your Research on an International Platform.
- Collaborate, Innovate, and Inspire the Next Generation of Thinkers.
- Experience the Rich Academic Culture and Legacy of Loyola College.

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https://sites.google.com/loyolacollege.edu/icnms2025