

# **International Symposium**

on

# **Mathematical Analysis of Fractals** and Dynamical Systems - 2023 (ISMAFDS-2023) **Hybrid Mode** 24<sup>th</sup> - 25<sup>th</sup> August 2023



**Organized By Department of Mathematics** School of Advanced Sciences Vellore Institute of Technology (Deemed to be University) Vellore, Tamil Nadu, India

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Vellore Institute of Technology was founded in 1984 in the name of Vellore Engineering College by the Chancellor Dr. G. Viswanathan, VIT attracts students from all the states of India and from more than 60 different countries due its academic excellence. In recognition of its excellence in academics, research and extracurricular initiatives, the University status was conferred in 2001 by Ministry of Human Resource Development (MHRD), Government of India. Currently, VIT has 4 campuses located in Vellore, Chennai, Amravati (AP) and Bhopal (MP). The National Institutional Ranking Framework (NIRF) has ranked VIT as 17th in Overall Category, 11th in Research Category, 11th in Engineering Category and 8th in University Category, announced by the Ministry of Education, Government of India for the year 2023. VIT has accreditation by NAAC (India), IET (UK) and ABET (USA), and follows a world class academic process. VIT is the first and only University in India to get 4-Star Rating from QS - World University Rankings Organization. VIT has been ranked among the top 851-900 institutions by QS - World University Rankings, ranked among the top 601-700 institutions by Shanghai ARWU Ranking of World Universities, ranked among the top 301-350 institutions by Times Higher Education (THE) World Young University Rankings, and also ranked as 173rd best institution in Asia by QS - Asia University Rankings.

### **ABOUT THE SCHOOL**

The School of Advanced Sciences (SAS), which was established in the year 1984, comprises of Mathematics, Physics, and Chemistry departments. The vision of the School is to provide quality teaching and research, which would make an impact at a global level. The School consists of a total of 277 experienced and enthusiastic faculty members, which includes 133 in Mathematics, 66 in Physics, and 78 in Chemistry. The research activities, publications and fruitful interactions with the industry are testimonials to the expertise of the faculty members in VIT. The School offers Masters Programs in Data Science, Business Statistics, Physics and Chemistry; Integrated Masters Programs in Mathematics, Chemistry, **Physics and Computational Statistics & Data Analytics.** The School offers Ph.D. programs in current research areas in Chemistry, Mathematics and Physics.

## **ABOUT THE DEPARTMENT**

The Department of Mathematics at VIT was established in 1984. The department strives to be recognized for excellence among academic institutions in India and abroad. Currently, the Mathematics department has 133 faculty members who support the other engineering departments through teaching and also actively involved in academic research in different areas. The department offers Ph.D. programmes in Mathematics, Statistics and Data Science in addition to M.Sc. (Data Science), M.Sc. (Business Statistics), Integrated M.Sc. (Computational Statistics and Data Analytics), and Integrated M.Sc. (Mathematics) programmes. The department emphasises on offering a comprehensive undergraduate, graduate, and research curriculum. The department will focus on research that is core of its field, promote cutting-edge, original research, and strengthen our role as a hub for top quality research in the world. We emphasis on higher education and Mathematics research in emerging areas such as AI, ML and Data science. For this purpose, we will adopt flexible approaches for reorganization and establishment of new initiatives within the department. The Department of Mathematics, School of Advanced Sciences (SAS), Vellore Institute of Technology, Vellore has obtained QS world university ranking by subject as 351-400 (International) and QS world university ranking by subject as 11 (National).

## **ABOUT THE SYMPOSIUM**

This Symposium is aimed at discussing the basic ideas and current research scenario of fractals and dynamical systems among the Mathematicians across the world. In addition, ISMAFDS- 2023 creates opportunity for young researchers to attend the lectures of International experts, interact with eminent Professors across the globe during interactive session. It creates a platform for the participants to share their research findings and to discuss about the contemporary research scenario in fractals, dynamical systems and its applications. The Symposium may support the authors to publish their research work in the reputed journals/proceedings. The scientific speakers are expected from the esteemed institute in India, Portugal, Italy, Malaysia and Others.

## **ORGANIZING COMMITTEE**

#### **Honorable Patron**

Dr. G. Viswanathan Founder & Chancellor, VIT

#### **Patrons** Mr. Sankar Viswanathan Vice President, VIT Dr. Sekar Viswanathan Vice President, VIT Dr. G.V. Selvam Vice President, VIT

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### Convener

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#### **Organizing Secretaries**

**Dr. D. Easwaramoorthy** Dr. S. Nandhini Dr. A. Manimaran Dr. A. Gowrisankar **Department of Mathematics, SAS, VIT** 

### **Organizing Team Members**

**Faculty Members**, Staff Members, **Research Scholars and Students Department of Mathematics, SAS, VIT** 

#### **Scientific Committee Chairs**

Dr. R. Uthayakumar

The Gandhigram Rural Institute, India.

#### **Dr. S. Ponnusamy**

Indian Institute of Technology Madras, India.

## **INVITED SPEAKERS**

Dr. R. Uthayakumar The Gandhigram Rural Institute, India. **Dr. Santo Banerjee** Politecnico di Torino, Italy. Dr. M. Guru Prem Prasad Indian Institute of Technology Guwahati, India. **Dr. Cristina Serpa** University of Lisbon, Portugal. **Dr. Tanmoy Som** Indian Institute of Technology (BHU), India. **Dr. Kishore Bingi** Universiti Teknologi PETRONAS, Malaysia. Dr. Alireza Khalili Golmankhaneh Islamic Azad University, Iran. Dr. P.G. Siddheshwar CHRIST University, India. Dr. R. Rakkiyappan Bharathiar University, India. Dr. G. Nagamani The Gandhigram Rural Institute, India. Dr. Asit Saha Sikkim Manipal Institute of Technology, Sikkim, India. Dr. Umesh Chandra Gairola Hemvati Nandan Bahuguna Garhwal University, India.

Dr. N. Balasubramani National Institute of Technology Tiruchirappalli, India. Dr. M. Sivabalan Sri Ramakrishna Mission Vidyalaya College of Arts and Science, India.

## **CALL FOR PAPERS**

Topics include, but are not limited to:

- Fractals and Multifractals
- Fractal Dimensions and Fractal Calculus
- Dynamical Systems, Chaos and Complexity
- Mathematical Analysis and Fixed Point Theory
- Fractals in Machine Learning and Artificial Intelligence
- Fractional and Nonlinear Dynamical System

 Mathematical Modelling, Image and Signal Analysis Research papers in other fields having fractals and dynamical systems related topics are also welcome.

### **IMPORTANT DATES**

Last Date for Abstract Submission	: 28.07.2023
Acceptance Notification	: 31.07.2023
Last Date for Registration	: 14.08.2023
<b>Registration Confirmation</b>	: 15.08.2023
Symposium Dates : 24.08.2023 - 25	5.08.2023

## **ABSTRACT SUBMISSION**

The authors are invited to submit the abstract of papers of their original, unpublished, research contribution which is not currently under review by another conference or journal. Only the accepted and registered papers will be allowed to present in this symposium. The authors are requested to electronically submit their abstract as per the given template (available in the Downloads menu of the symposium website) by using the following web link.

https://tinyurl.com/ISMAFDS-abstract-link

# POST SYMPOSIUM PUBLICATIONS

After the peer review process, the selected full-length papers will be submitted for possible publication in ANY ONE of the following international journals/proceedings indexed in **SCOPUS** without any publication charges.

- Springer Proceedings in Physics
- Advances in Pure and Applied Mathematics (Impact Factor 0.4)

# **REGISTRATION FEE\***

Participants	Indian Delegates	Foreign Delegates
With Presentation	1500 (INR)	150 (USD)
Without Presentation	1000 (INR)	100 (USD)

\*The registration fee has to be paid along with GST (Tax) through the symposium website.

## **CONTACT DETAILS**

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