An International FDP on

Recent Trends in Differential Equations and Numerical Computing (RTDENC-2025)

Hybrid mode

Duration: 20th - 24th June, 2025

Coordinators

Dr. Tamal Pramanick

Dr. R. Ashok

Organized by

Department of Mathematics
National Institute of Technology Calicut
NIT Campus P.O., Kozhikode – 673601

About NIT Calicut

National Institute of Technology Calicut was founded as Regional Engineering College, Calicut in 1961. Set in a picturesque at the foothills of the Western Ghats, it is located about 22 kilometres north-east of Calicut city. It is a prestigious institute with a reputation for excellence at both undergraduate, postgraduate and research levels, fostering the spirit of national integration among the students and close interaction with industry.

About Department

The Department of Mathematics is one of the oldest departments of NITC. The Department offers the courses for B.Tech, B.Arch, M.C.A. and M.Tech programmes of the institute. The Department also offers the following programmes: M.Sc in Mathematics and Ph.D in Mathematics.

The Department of Physics in NITC is emerging as a major centre for teaching and research in applied physics and technology, with a dynamic team of faculty members, technical staff and research scholars.

In addition to the Bachelors and Masters programmes (B.Tech. Engineering Physics and M.Sc. Physics), the department has an active and vibrant research programmes in experimental, theoretical and computational physics, supported by several externally funded projects.

The vibrant research culture in both Mathematics and Physics Departments are visible from the sponsored projects by various departments and organizations including the MHRD, SERB, DST, R&D and KSCSTE etc. Both the Departments are also actively involved in conducting International Conferences, Faculty Development Programmes, Job-oriented Short-term Training Programmes and Continuing Education Programmes for Engineering professionals and academic faculty.

Programme Duration

5 day programme hybrid mode which includes 12 lecture sessions, 2 Hands on training sessions, 3 Lab sessions, Inaugural and Valedictory sessions.

Programme Objective

The FDP aims at providing an interactive platform to the academia, researchers and students who are working in the latest developments of mathematical modelling and its numerical applications, numerical analysis, computational techniques etc. We focus on covering various aspects of mathematics and numerical analysis, engineering as well as industries. The advanced computing techniques used in various applications and corresponding mathematical modelling in real life will be explored.

Topics Covered

This programme will cover the following topics:

- Recent developments in ordinary and partial differential equations
- Numerical methods for solving differential equations

- Stability and convergence analysis of numerical schemes
- Computational techniques in applied mathematics
- Applications of differential equations in physics, engineering, and finance
- Machine learning approaches in numerical computing
- High-performance computing for differential equation solutions

Programme Outcomes

On completion of this programme, participants are expected to be capable of understanding the basics and advances of mathematical modelling for various physical problems and solving techniques, mathematical applications in real life, current trending and efficient methods for solving various ODE, PDE and mathematical models and many other aspects.

Organizing Committee

Patron:

Prof. Prasad Krishna, Director, NIT Calicut

Chairperson:

Dr. Sunil Mathew, HoD Mathematics, NIT Calicut

Coordinators:

Dr. Tamal Pramanick | **Dr. R. Ashok**

Important Dates

Registration Deadline: **1st June 2025**.
FDP date: **20 – 24th June 2025**.

Resource Persons

- Dr. S. Sundar, IIT Madras
- Dr. Thirupathi Gudi, IISc Bangalore
- Dr. Rajen Kumar Sinha, IIT Guwahati
- Dr. S. R. Manam, IIT Madras
- Dr. Satyananda Panda, NIT Calicut
- Dr. Ramanababu Kaligatla, IIT (ISM) Dhanbad
- Dr. Subhankar Sen, IIT (ISM) Dhanbad
- Dr. H. Behera, National Taiwan Ocean University, Taiwan
- Dr. C. Gunasundari, Anna University, Chennai
- Dr. Shantiram Mahata, Umeå University, Sweden

Who should attend?

Faculties, Research scholars, PG (M.Tech, M.Sc. etc.) students, Industrials, Scientists.

Registration Fee Details

Faculty (NITC Fac.):	Rs 3500 (2500)
PhD (NITC):	Rs 2000 (1100)
PG (NITC)	Rs 1500 (1000)
Industry Person:	Rs 7000

(The registration fee is inclusive of GST)

Venue Details

Online: WebEx or GMeet

Offline: Ramanujan Hall Department of Mathematics, Content Delivery and Q&A sessions through Moodle Based Learning Management system.

Registration Link

Click below:

Registration form

Mode of payment

The registration fee must be paid through online payment by scanning the QR code or UPI ID provided below.

UPI ID: rtdenc2025.753@sbi

For query contact (Coordinators):

Name: **Dr. Tamal Pramanick**
Assistant Professor
Department of Mathematics, NIT Calicut, Kerala-673601
Email id: **tamal@nitc.ac.in**
Contact: +91-7664924996

Name: **Dr. R. Ashok**
Assistant Professor
Department of Mathematics, NIT Calicut, Kerala-673601
Email id: **ashokr@nitc.ac.in**
Contact: +91-9655168672