

## ABOUT THE INSTITUTE

National Institute of Technology Trichy is situated in the heart of Tamil Nadu on the banks of river Cauvery. NITT is an autonomous co-educational technological institute, with 10 undergraduate and 28 graduate programs. Undergraduate programs lead to the B.Tech. degrees, while the graduate students and postgraduate students earn M.Tech., M.S. (by Research) and Ph. D degrees respectively. NITT is in Thuvakudi on the Trichy – Tanjore national highway, 17 km from Trichy Railway Junction.



## ABOUT THE DEPARTMENT

The Department of Mathematics is one of the pioneering and the most distinguished departments in National Institute of Technology, Trichy. Applying a multi-disciplinary research and teaching methods, the department strongly believes in finding mathematical solutions for various social-economic, technological

and work-related processes and challenges. The department is committed to outstanding graduate training to produce leading scholars in various fields of mathematics. Since its inception, the department moulds Ph. D graduates to carry out challenging research problems, which have wide-ranging industrial and social implications.

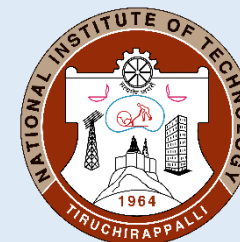


## OBJECTIVE OF THE WORKSHOP

The objective of the workshop is to familiarize various topics on functional analysis and numerical analysis. Mathematical study of several real-life problems are incomplete without the concept of functional analysis. This workshop intends towards the bridging of two branches namely functional analysis and numerical analysis. Sessions will also include the study of mathematical/numerical tools from an engineering point of view. Tutorial sessions will be conducted for better understanding of the concepts.

# FIVE DAYS NATIONAL LEVEL ONLINE WORKSHOP ON FUNCTIONAL ANALYSIS & NUMERICAL ANALYSIS (WFANA)

(05 – 09 APRIL 2021)



*ORGANIZED BY*

**DEPARTMENT OF MATHEMATICS  
NATIONAL INSTITUTE OF TECHNOLOGY  
TIRUCHIRAPPALLI – 620 015  
TAMIL NADU, INDIA.**

*ORGANIZING COMMITTEE*

**Convener: DR. JITRAJ SAHA  
Coordinator: DR. VAMSINADH THOTA**

## COURSE CONTENTS

Several topics on functional and numerical analysis including but not limited to

- Topology, metric spaces, compactification
- Operator version of Hahn – Banach theorem.
- Three fundamental theorems of functional analysis via Zabreiko's lemma
- Weak, weak\* topologies and Banach-Alaoglu theorem
- Analysis of linear and nonlinear PDEs
- Control of PDEs
- Analysis of hyperbolic / elliptic PDEs
- Numerical modelling and simulation (using MATLAB)
- Numerical treatment of real life problems will be discussed.

## RESOURCE PERSONS

1. Dr. Debajyoti Choudhuri, NIT Rourkela
2. Dr. C. R. Jayanarayanan, IIT Palakkad
3. Dr. Jitendra Kumar, IIT Kharagpur
4. Dr. S. Lalithambigai, Madurai Kamaraj University
5. Dr. P. K. Sanjay, NIT Calicut
6. Dr. Shirshendu Chowdhury, IISER Kolkata, and Experts from NIT Tiruchirappalli will handle the sessions.

## COURSE EVALUATION

Upon successful completion of the workshop, the electronic certificate will be sent to participants with a minimum of 80% participation in their registered email id.

## REGISTRATION FEES

Category	Amount to be paid (in ₹)
PG students	₹ 500
Research Scholars	₹ 600
Faculty / Post Doc	₹ 750
R&D / Industry personnel	₹ 1000

**Note:** Registration fee to be paid by using SBI-collect only. The payment for the registration includes GST and other taxes. Registration fee is non-refundable.

## IMPORTANT DATES

Number of participants are limited to 50 on first-come-first serve basis

Start date of registration	03 March 2021
First round registration ends on	25 March 2021
Second round registration ends on	31 March 2021

## PROGRAMME MODE AND SCHEDULE

Workshop will take place via online video conferencing by Cisco WebEx/Google Meet platform. The schedule of the programme and the online meeting link will be shared to the participants through their registered email id.

## HOW TO REGISTER

1. Go to the SBI – collect using the link <https://www.onlinesbi.com/sbicollect/>
2. Select the state as 'Tamil Nadu', and category as 'Educational Institutions'.
3. Select "conference and workshop NIT Trichy".
4. Select payment category as "WFANA (MATHS – 2021)" and fill the details.
5. Make payment through UPI / Net Banking / Credit card / NEFT.
6. Once the fee is paid, fill up your details and upload the payment receipt in – <https://forms.gle/LjpaEtFbDrSEXjas5>

## CONTACT

For any clarifications, please

write ✉ [nittmaths@gmail.com](mailto:nittmaths@gmail.com) or call

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