ABOUT THE INSTITUTE

National Institute of Technology (formerly known as Regional Engineering College) Tiruchirappalli, situated in the heart of Tamil Nadu on the banks of river Cauvery. It was started as a joint and co-operative venture of the Government of India and Government of Tamil Nadu in 1964 with a view to catering to the needs of man-power in technology for the country. The college has been conferred with autonomy in financial and administrative matters to achieve rapid development.

DEPARTMENT OF PRODUCTION ENGINEERING

Department of Production Engineering was established in 1983 and offers B.Tech. (Production Engineering) M.Tech. (Manufacturing Technology, Industrial Engineering and Management), M.S. and Ph.D. programmes. The highly experienced faculties of the department contributes to the vital role in academic research. Many research articles have been published in reputed national, international journals and conferences by the faculties and students of the department. Government of India has recognised this Department as a Centre for Quality Improvement Programme for PG and Ph.D. courses.

DEPARTMENT OF MECHANICAL ENGINEERING

One among the first three departments to be established in 1964 in the institute, the Mechanical Engineering Department of NITT has the reputation of being among the finest in the country and is dedicated towards the advancement of technology and science. Keeping itself up to date with the latest developments and trends in the field and with a dedicated faculty of highly qualified and experienced members in all streams of mechanical engineering, the department consistently strives to provide world-class facilities for education and research. The department has an excellent industrial interaction and contributes to the industry by offering consultancy services. Some of them are: Heavy Alloy Penetrator Project (HAPP), Oil and Natural Gas Corporation (ONGC), Indira Gandhi Centre for Atomic Research (IGCAR), Neyveli Lignite Corporation (NLC) and Bharat Heavy Electricals Limited (BHEL) and its ancillaries.

IMPORTANT DATES

Last date for receiving applications	**27 June 2017**
Intimation of selection	**28 June 2017**
Mode of Intimation	**Through Email only**

ELIGIBILITY

Faculty members from Technical Institutions, Research Scholars, PG Scholars, Professionals working in Industry and Government Organizations.

HOW TO REACH NIT-TRICHY

NIT-Tiruchirappalli is located about 22 km from Tiruchirappalli Junction / Central Bus-stand on the Tiruchirappalli - Thanjavur Highway. The simplest and most economical way to reach NIT-Tiruchirappalli is by bus. Board Thanjavur bound mofussil or route bus and get down at NIT Trichy. The journey time from Tiruchirappalli will be around 40 minutes.

One Week Short Term Course on

Fundamentals and Advances in Finite Element Method using MATLab

29 June-04 July 2017

Course Co-ordinators

Dr. V. Senthilkumar

Dr. T. Ramesh

Organized by

Department of Production Engineering

&

Department of Mechanical Engineering

National Institute of Technology

Tiruchirappalli — 620 015, Tamil Nadu

SCOPE AND OBJECTIVE

Primary objective of this course is to explore the fundamental and advances in finite element analysis by providing a common platform to interact with the experts in this field. The contents includes from introduction to advanced techniques used in this finite element methods, their end applications and recent developments. This course will be platform for providing clear cut ideas regarding MATLab and usage of this package in finite elements to researchers who are working and planning to work in this field. This also helps to motivate the research ideas with practical applications by the experts in this field of research.

COURSE CONTENTS

The following topics will be covered in the course:

- Finite Element Method – An Introduction
- Introduction to MATLab
- Applications of Finite Element Method
- Mathematical Formulations of Mechanical Problems
- One-Dimensional Boundary value problem
- Matrix Manipulations and Solving Differential Equations in MATLab
- MATLab tools – A research perception
- Mapping of Elements/ Two-dimensional elements
- Hands on Training on MATLab
- Analysis of Elastic Solids
- Introduction to Non-Linear FE problem
- Material and Geometrical Non-linearity in FEM
- Hands on training in multi-physics domain using Commercial Software

FACULTY

Lectures will be delivered by resource persons from NITs. Along with it a practical session will be conducted for individual topic in the schedule by resource persons.

REGISTRATON FEE

Students : **Rs 3600/-***

Industry and Academia : **Rs 4175/-***

*Inclusive of 15% Service Tax

REGISTRATION DETAILS

The participants are requested to fill in the registration form and send it to the Workshop Coordinators along with the Demand Draft for applicable amount drawn in favor of "**The Director, NIT Trichy**", so as to reach us on or before **27.06.2017**.

The participants are also requested to confirm their participation in the workshop by sending an e-mail to mail id **vskumar@nitt.edu** on or before 27.06.2017.

The participants will be provided working lunch. Accommodation will be arranged in the NITT Hostels and guest house based on the availability on payment basis.

No TA/DA will be paid to the participants.

ADDRESS FOR CORRESPONDANCE

Dr. V. Senthilkumar, Co-ordinator,
Fundamentals and Advances in Finite Element Method using MATLab
Assistant Professor,
Department of Production Engineering
National Institute of Technology
Tiruchirappalli - 620 015. Tamil Nadu
vskumar@nitt.edu 9486001113
tramesh@nitt.edu 9443586339

REGISTRATION FORM

One Week Short Term Course on

Fundamentals and Advances in Finite Element Method using MATLab

29.06.2017 – 04.07.2017

Name :
Qualification :
Designation :
Gender (M / F) :
Department :
Organization :
Mailing Address :
Phone :
Email :

Details of Registration Fee

Amount:
DD No. :
Date :
Bank Name & Place:

Signature of Applicant:

SPONSORSHIP CERTIFICATE

Mr/Mrs/Ms/Dr._____
is an employee of our Institute / Organization is hereby sponsored and he / she will be permitted to attend the course in full, if selected.

Signature of the Sponsoring Authority with Seal and Date