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GENERAL INFORMATION

Guru Nanak Dev Engineering College, Ludhiana (established in 1956), is one of the oldest and a premier Engineering Institute of India. The institute is set up on 88 acres of sprawling pristine land on Ludhiana-Malerkotla highway. Ludhiana city is a well known Industrial hub in Northern India and is well connected by direct rail service with all parts of India. The beautiful campus is about 7 Kms. away from railway station. The weather in the month of July in Ludhiana is hot with temperature around 42°C.

REGISTRATION

There is no registration fee for the participants from AICTE recognised institutes. However, at par cheque of Rs. 1000/- (drawn in favour of "Director, Guru Nanak Dev Engineering College, Ludhiana", payable at Ludhiana) should be enclosed with the application form which will be refunded to the participants who will attend the course. The other participants will have to pay registration fee of Rs. 5000/-.

TEQIP-II Sponsored
Short Term Course

FINITE ELEMENT METHODS TO SOLVE ENGINEERING PROBLEMS
(July 22, 2013 to July 26, 2013)

Chief Coordinator
Dr. H.S. Rai

Coordinators
Dr. B.S. Walia
Er. Gurdeepak Singh

Organised by:
Civil Engineering Department
Guru Nanak Dev Engineering College,
Ludhiana, Punjab – 141006
Phone No. 0161-5064537
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INTRODUCTION

The Finite Element Method (FEM) is a numerical and computer-based technique of solving a variety of practical engineering problems that arise in different fields. It is recognized by developers and users as one of the most powerful numerical analysis tools ever devised to analyse complex problems of engineering. FEM formulations will be elaborated for various practical engineering problems related to civil engineer, mechanical engineer and electrical engineer involving 1D, 2D and 3D problems of structural engineering, fluid mechanics , heat transfer etc.

COURSE OBJECTIVES

The aim of the course is to provide the participants an understanding of Finite Element Method and its Applications. At the end of the course, the participants are expected to have fair understanding of:

1. Basics of Finite Element Analysis
2. Available material models for structural materials, soils and interfaces/joints
3. Modeling of engineering systems and Soil–Structure Interaction (SSI)
4. Importance of interfaces and joints on the behavior of engineering systems
5. Implementation of material model in finite element method and applications.

COURSE CONTENTS

1. Introduction to computer methods and FEM

2. Basics of constitutive modeling of materials
3. Implementation of constitutive models in FEM
4. Typical material models used in FE analysis
5. FEM Applications in civil engineering and case studies.
6. Static and Dynamic Soil–Structure Interaction (SSI)
7. Practice example and problem solving sessions

FACULTY

The course will be conducted by highly qualified and experienced faculty from institutions like IIT Delhi, IIT Roorkee and GNDEC Ludhiana.

ELIGIBILITY CRITERIA

The program has been designed for all professionals, practicing engineers, architects, faculty members and students.

BOARDING & LODGING

Accommodation is available in the college Hostels, Guest House and Hotel/Lodge on reasonable charges.

IMPORTANT DATES
Last date for receiving applications
July 2, 2013
Notification of acceptance:
July 5, 2013

FINITE ELEMENT METHODS TO SOLVE ENGINEERING PROBLEMS
(July 22, 2013 to July 26, 2013)

APPLICATION FORM

Name: ....

Father's Name: ....

Date of Birth: ....

Academic Qualification:.................

Designation:.....................................

Address of Sponsoring Authority:...........

....

Experience (years) : ....

Mailing Address :...........................

....

Mobile No...

E-Mail : ....

Bank Draft No./Cash : ....

Accommodation required : Yes/No

Date: Signature of Applicant

Sponsorship Certificate

The applicant will be permitted to participate in the above programme, if selected. This is also certified that this institute is recognised by AICTE.

Signature of sponoring Authority