

INTRODUCTION

A course on **Finite Elements in Earthquake Engineering** is planned to be conducted at IIT Madras during 4th – 8th July 2005 under the aegis of National Programme on Earthquake Engineering (NPEEE).

In the aftermath of the Bhuj earthquake in 2001, the NPEEE was initiated with the support of the Ministry of Human Resource Development (MHRD) to develop better teaching capability in the area of Earthquake Engineering. As a part of this strategy, several short term courses are planned to be conducted, at all the resource institutes consisting of the IITs and IISc. Details of NPEEE may be found at <http://www.nicee.org/npeee>.

As a resource institute for the project, a series of *four short term courses* will be conducted at the Department of Civil Engineering, IIT Madras during June - July 2005. Among the four courses, the first course is on "Seismic Retrofit of Multistoried Buildings (SRMB 2005)". The second one is on "Soil Dynamics and Earthquake Engineering (SDEE 2005)". The other two are (3) Finite Elements in Earthquake Engineering (FEEE 2005) and (4) Probability Methods in Earthquake Engineering (PMEE 2005).

The course on Finite Elements in Earthquake Engineering (FEEE 2005) is specially designed for Teachers of

Engineering Colleges who are involved or likely to be involved in teaching of the subject at the Undergraduate and Postgraduate levels. The course will attempt to introduce elementary and advanced concepts of static and dynamic structural analysis, theory and applications of finite elements in earthquake engineering. A test will be conducted at the end of the course to evaluate the value addition of the training.

OBJECTIVES

1. To give a broad perspective of the finite element analyses techniques in structural dynamics and earthquake engineering.
2. To illustrate the advanced techniques for earthquake structural and geotechnical analyses.

COURSE CONTENTS

1. Structural Analysis: Matrix Methods
2. Introduction to FEM
3. FE Analysis of RC Buildings
4. Seismic Analysis of RC Buildings
5. Seismic Analysis of Bridges
6. FE Analysis of Ground Response
7. Programming the Dynamics of Structures
8. Dynamic Soil Structure Interaction
9. Seismic Analysis of Pile Supported Structures
10. IS Codal Provisions and Use of SAP 2000.

REGISTRATION FORM (FEEE 2005)

1. Name:
2. Designation:
3. Mailing Address:

Telephone:
Fax:
E-mail:
4. Educational qualifications
5. Experience
6. Motivation for attending the course and future plans
7. Name of the Sponsoring Organisation/College/University
8. Boarding and Lodging required Y/N
9. Signature and date

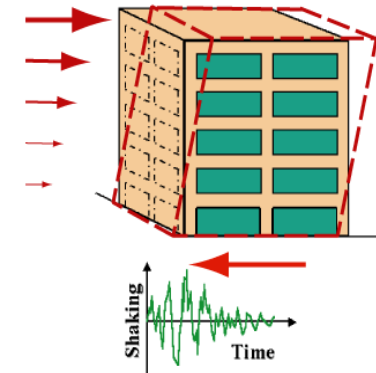
Note:

- In addition to this form, candidates should fill the NPEEE application form for teachers to participate in the training programme and get the recommendation of the Head of their Institution on the same.

National Programme on Earthquake Engineering Education (NPEEE)

Short Term Course on Finite Elements in Earthquake Engineering

July 4 - 8, 2005



Coordinators
Dr G R Dodagoudar
Dr B Nageswara Rao



Department of Civil Engineering
Indian Institute of Technology
Madras, Chennai - 600 036

The course is planned to be conducted at the Department of Civil Engineering, IIT Madras, which has considerable expertise in the area of Finite Element Analyses, Structural and Soil Dynamics and Earthquake Engineering. The Faculty of Structural and Geotechnical Engineering Divisions of IIT Madras who have teaching, consultancy and research experience in the subject will deliver lectures. Both theory and tutorial sessions will be conducted. In addition, demonstration of laboratory and field dynamic tests is planned to be conducted.

IMPORTANT DETAILS

- Only permanent full-time faculty of AICTE recognized engineering colleges are eligible to apply. **Only 30 seats are available.**
- Cancellation after registration is highly discouraged and application will be given low preference during selection for future courses.
- Candidates are eligible for III AC train fare from the nearest station on production of a copy of the ticket. Non-AC double room accommodation will be provided on a shared basis during the workshop period.
- Last date for Registration **25th June 2005**

CORRESPONDENCE

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