

INTRODUCTION

A course on Seismic Retrofit of Multistoreyed Reinforced Concrete Buildings is planned to be conducted at IIT Madras from 18th to 23rd July, 2005, under the aegis of National Programme on Earthquake Engineering Education (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 short-term courses will be conducted at the Department of Civil Engineering, IIT Madras in the summer of 2005. The course on Seismic Retrofit of Multistoreyed Reinforced Concrete Buildings (SRMB 2005) will be conducted from 18th to 23rd July, 2005. The course is designed for teachers of engineering colleges who are involved or likely to be involved in teaching the subject or in consultancy projects. Adequate knowledge of structural dynamics and seismic design is a pre-requisite for attending the course. A test will be conducted at the end of the course to evaluate the value addition of the training.

OBJECTIVES

- To teach the analytical methods for evaluation of seismic resistance of buildings.
- To highlight the deficiencies of existing multi-storeyed reinforced concrete buildings.
- To describe the available seismic retrofit strategies for the deficient buildings.

COURSE CONTENT

1. Review of seismic design provisions
2. Modelling of multi-storeyed buildings
3. Introduction to performance based analysis
4. Pushover analysis
5. Deficiencies of existing buildings
6. Goals, objective and steps of seismic retrofit
7. Introduction to non-destructive testing of concrete
8. Introduction to fibre reinforced polymers
9. Local and global retrofit strategies
10. Introduction to energy dissipation and base isolation
11. Case studies

REGISTRATION FORM (SRMB 2005)

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

Telephone:
Fax:
Email:
 4. Educational qualifications
 5. Experience
 6. Motivation for attending the course and future plans
 7. Name of the University/ College/ Organisation
 8. Boarding and Lodging required Y/N
(The teachers will be provided with per diem to cover their boarding costs as per standard norms)
 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.

The course is planned to be conducted at the Structural Engineering Laboratory, IIT Madras, which has considerable expertise in the area of structural dynamics, earthquake engineering and reinforced concrete. The course faculty will include Prof. V. Kalyanaraman, Prof. Devdas Menon, Prof. A Meher Prasad, Dr. P. Alagusundaramoorthy, Dr. S.R. Satish Kumar and Dr. Amlan K. Sengupta, who have teaching, consultancy and research experience in the subject. Theory classes, tutorial sessions and lab visits will 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-A/C double room accommodation will be provided on a shared basis during the workshop period.
- Last date for Registration **31st May, 2005**

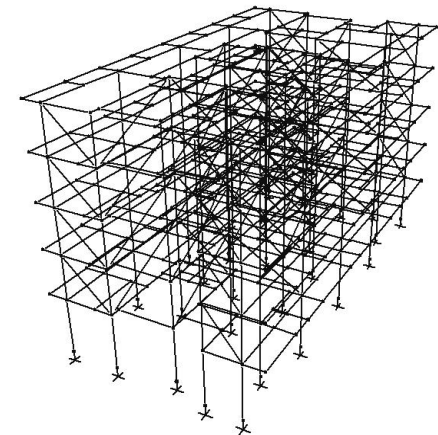
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National Programme on Earthquake Engineering Education (NPEEE)

Short Term Course on Seismic Retrofit of Multistoreyed Reinforced Concrete Buildings

18th – 23rd July, 2005



Model of an existing multistoreyed building



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