

INTRODUCTION

A course on **Engineering Seismology and Seismic Hazard Assessment (ESSHA)** is planned to be conducted at IIT Madras during 12th – 16th February 2007 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 institutions. Details of NPEEE may be found at <http://www.nicee.org/npeee>.

Earthquake resistant design of civil and nuclear engineering structures concerns, in general, with several levels of strong ground motion, each one with its own specific design requirements. Areas of moderate to low seismic activity are often characterized by a lack of strong ground motion records. As a result, the prediction of expected ground motion in hypothetical future earthquakes is often performed by employing empirical attenuation relationships from other regions. Probabilistic Seismic Hazard Assessment (PSHA) provides reliable estimates of design ground motion parameters in high and low seismicity regions. PSHA is at the core of development of seismic zone maps.

The course **ESSHA 2007** is specially designed for Teachers of Engineering Colleges who are involved in teaching of the subject at the Postgraduate level. An examination will be conducted at the end of the course to assess the proficiency of the attendees after the training.

OBJECTIVES

1. To provide basic understanding of the origin of earthquakes and of their effects from an engineering seismology point of view.
2. To illustrate the fundamentals of both deterministic and probabilistic seismic hazard assessment for establishing the seismic input and design ground motion parameters.

COURSE CONTENTS

1. Engineering Seismology: Introduction
2. Seismic Wave Propagation and Local Site Effects
3. Seismic Instrumentation
4. Recent Earthquakes: Lessons Learnt
5. Earthquake Source Mechanics
6. Earthquake Catalogues
7. Strong Ground Motion and Recurrence Models
8. Seismic Hazard Assessment (SHA): Deterministic and Probabilistic Approaches
9. Case Studies: PSHA.

REGISTRATION FORM (ESSHA 2007)

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

Engineering Seismology and Seismic Hazard Assessment

12th – 16th February 2007

Coordinator

Dr G R Dodagoudar



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

RESOURCE FACULTY

The following faculty who have considerable expertise in the area of engineering seismology and seismic hazard assessment will be involved in the theory and tutorial sessions.

Dr. G. R. Dodagoudar (I I T Madras, Chennai)

Dr. B. N. Rao (I I T Madras, Chennai)

Prof. A. Meher Prasad (I I T Madras, Chennai)

Dr. Carlo G. Lai (EUCENTRE and ROSE School,
University of Pavia, Italy)

IMPORTANT DETAILS

- Only permanent full-time faculty of AICTE recognized engineering colleges are eligible to apply. **Only 30 seats are available.**
 - 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 course period.
 - Last date for Registration **8th Feb. 2007.**
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CORRESPONDENCE

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