

## SPONSORSHIP

Mr./Mrs./Dr. \_\_\_\_\_  
is an employee of our institute and his/her application is hereby sponsored. The applicant will be permitted to attend the short-term course at IIT Guwahati during May 9-13, 2005, if selected.

Date: \_\_\_\_\_  
Signature of Sponsoring Authority  
Designation: \_\_\_\_\_  
Official Seal: \_\_\_\_\_

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For applicants from Industries and Government Departments:

DD No. \_\_\_\_\_ Date: \_\_\_\_\_

Bank: \_\_\_\_\_

Amount: \_\_\_\_\_

\_\_\_\_\_  
Signature of the Applicant

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The duly sponsored application form should be mailed to:

**Dr. Anjan Dutta, Course Coordinator**  
NPEEE Short Term Course  
Department of Civil Engineering  
Indian Institute of Technology Guwahati  
Guwahati – 781 039, Assam

Ph. No.: 0361 2582405 (O), 0361 2690982 (R)

Fax No.: 0361 2690762

Email: [adutta@iitg.ernet.in](mailto:adutta@iitg.ernet.in)

## ELIGIBILITY

The course is open to teachers of engineering colleges approved by AICTE and having a degree in Civil Engineering. *However, preference will be given to teachers dealing with Structural Engineering related subjects. No course fee* is charged for participants sponsored by AICTE approved institutions.

Participants from Industry and Governments Departments are eligible, provided they meet their T.A. and D.A. and pay a course fee @ Rs.4000/-. The payment is to be made by demand draft drawn on any Nationalized Bank in favour of **IIT Guwahati, payable at Guwahati.**

## BOARDING AND LODGING

Boarding and lodging facilities will be provided for the selected candidates from AICTE approved institutions in the institute guest house.

## IMPORTANT DATES

The last date for the receipt of duly sponsored applications: **31.03.2005**

Intimation of Selection: **08.04.2005**

N.B. Interested candidates may send advance copy of the application duly countersigned by the Head of the Department / Controlling Officer (for sponsored candidate) to avoid procedural delay.

## SHORT TERM TRAINING PROGRAMME

ON

**Seismic design and health monitoring of bridges**

*Under*



**May 9-13, 2005**

*Sponsored by*  
**Ministry of Human Resource Development  
Government of India**

*Coordinator*  
**Dr. A. Dutta**



**Department of Civil Engineering  
Indian Institute of Technology Guwahati  
Guwahati - 781 039**

## BACKGROUND

The National Programme on Earthquake Engineering Education (NPEEE) supported by the Ministry of Human Resource Development (MHRD) aims at developing better teaching capabilities within the country in the crucial area of Earthquake Engineering. The country is prone to unacceptably large earthquake risk that needs to be reduced by a variety of means. However, in any endeavour towards seismic risk reduction, the lack of adequate quality and quantity of manpower is a major bottleneck in our country. NPEEE is meant for developing capacity within the engineering and architectural institutions of the country in this subject. The main vehicle of this change is the *training of teachers and curriculum development*.

## COURSE OBJECTIVES

- To study the performance of bridges during past earthquakes
- To explain new codal provisions
- To discuss seismic design concepts and ductility based detailing
- To introduce the new developments in earthquake resistant design, control and health monitoring procedures.

## COURSE CONTENTS

- Elements of engineering seismology
- Introduction to Earthquake ground motion and characteristics
- Behaviour of bridges in past earthquakes and lesson learnt
- Dynamics of SDOF system
- Seismic design concepts; Concept of response spectrum, Design spectrum
- Current trends on new Indian seismic code for bridges

- Passive control (e.g. Base Isolation) and other control devices for bridges
- Ductile detailing for bridges
- Seismic retrofitting of bridges
- Health monitoring of bridges using vibration technique

## FACULTY

Faculty members of IIT Guwahati will deliver lectures.

## ABOUT IIT GUWAHATI CAMPUS

IIT Guwahati campus is spread over a sprawling 285 hectares plot of land on the north bank of the river Brahmaputra around 25 km from the heart of the city. With the majestic Brahmaputra on one side, and with hills and vast open spaces on others, the campus provides an ideal setting for learning. Guwahati city (situated at  $91^{\circ} 44'$  E longitude &  $26^{\circ} 10'$  N latitude) is gateway to beautiful NE region of the country and linked with all major cities by rail, road and air. Guwahati has a temperate climate with temperature varying between  $7^{\circ}\text{C}$  to  $37^{\circ}\text{C}$ . Winter span is usually from December to January. Buses, auto-rickshaws and taxis are available from Guwahati City to the IIT Guwahati Campus.

## FINANCIAL ASSISTANCE

Participant sponsored by AICTE approved institutions will be eligible for single *Third AC SLEEPER CLASS* to and fro railway fare via shortest route and free lodging and boarding during course period. Candidates attending the course in full only will be eligible for TA and DA.

## NPEEE SHORT TERM TRAINING PROGRAMME ON Seismic design and health monitoring of bridges

May 9-13, 2005

### Application Form

1. **Name (block letter):**
2. **Designation:**
3. **Organisation:**
4. **Address for communication:**

**Pin code:**                      **Ph. No.:**  
**Fax No.**                              **E-mail:**

5. **Highest Academic Qualification:**
6. **Specialisation:**
7. **Experience (in years):**  
(a) **Teaching:**    (b) **Industrial:**
8. **Courses taught (last five years):**

**Place:**  
**Date:**

**Signature of the applicant**