



Announcing a Short Course on  
**Seismic Design of Railway Bridges**  
To be conducted at IIT Kanpur during 2-6 May, 2011

### COURSE OBJECTIVES

The aim of the course is to provide the participants an overview on seismic design procedures for bridges with special emphasis on Railway Bridges. At the end of the course, participants are expected to:

- Have an overall understanding of the seismic design concepts, procedures and current practices for bridges to enable them to plan and direct the construction activity appropriately.
- Understand the methodology of seismic design to be able to execute a proper design.
- Have a clear appreciation of how seismic design methodology for bridges is very different from that for buildings.
- Introduce new guidelines for the design of Railway Bridges.

### PARTICIPANTS

The course is designed for

- Civil Engineers engaged in planning, design, or construction of bridges.
- Senior professionals responsible for directing these activities

### COURSE CONTENTS

- Elements of Engineering Seismology
- Theory of Vibrations, Response Spectrum
- Indian Seismicity; Earthquake History
- Behaviour of Bridges in Past Earthquakes in India and Abroad
- Seismic Design Concepts; Design Spectrum; Principle of Capacity Design
- Provisions of Seismic Codes in India, US, New Zealand, and Japan
- Current Trends on New Indian Seismic Code for Railway Bridges
- IITK-RDSO Guidelines of Seismic Design on Railway Bridges

- Base Isolation and Control Devices for Bridges.
- Ductile R.C. Detailing for Bridges
- Soil Liquefaction and its Evaluation

### COURSE FACULTY

The course will be conducted by

- Dr. Durgesh C. Rai, IIT Kanpur ,
- Dr. O R Jaiswal, VNIT Nagpur, and
- Dr. Sudhir K. Jain, IIT Gandhinagar.

### CERTIFICATE

Participants who successfully complete the course will be awarded a certificate of Participation.

### VENUE

The course will be conducted at IIT Kanpur.

### REGISTRATION

The course fee is Rs. 15,000/- (Rupees Fifteen Thousand Only) per participant. It includes course material, lunch, and tea breaks. The fee is payable in advance by a crossed draft in favour of *Course on Seismic Design of Railway Bridges, IIT Kanpur* or through credit card. Limited twin-sharing accommodation is available on first-come first-served basis at IITK Guest House on payment.

Interested persons should send the enclosed Registration Form to:

Cdr (Retd.) Suresh Ailawadi  
Organiser, Course on Seismic Design  
Department of Civil Engineering  
Indian Institute of Technology Kanpur  
Kanpur - 208 016

Phone: (0512) 2597749

Fax: (0512) 2597794

Email: [asuresh@iitk.ac.in](mailto:asuresh@iitk.ac.in)

Web: <http://www.nicee.org/brochure.pdf>



Short Course on  
**Seismic Design of Railway Bridges**  
at IIT Kanpur during 2-6 May, 2011

**Registration Form**

Name :

Designation :

Organization :

Mailing Address :

Phone (office):

Fax :

Phone (home):

Email :

**Qualifications and Background :**

**Registration Fee :**

- a) Enclosed is a crossed draft no. .... dated .....for  
Rs. .... payable to **Course on Seismic Design of Railway Bridges, I.I.T. Kanpur.**
- b) Please bill my credit card:      Master Card     Visa  
Card No: \_\_\_\_\_      Expiry Date: \_\_\_\_\_  
Name on Card: \_\_\_\_\_
- (c) I have made the payment online using my credit card at the site [www.nicee.org/payment.php](http://www.nicee.org/payment.php)  
mentioning the purpose as "Bridge Course"
- or
- (d) I shall send the registration fee by ..... (please indicate date).

(Signature)

**Please return to :**

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Organiser, Course on Seismic Design  
Department of Civil Engineering  
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