

Short Term Course on
Design and Rehabilitation of Highway Pavements
(19-21 November 2011)



Organized by

Transportation Engineering Division
Civil Engineering Department
Indian Institute of Technology Kharagpur, India

Need for the Programme

Road Construction activity in India has undergone significant changes over the last one decade owing to the huge investments made and due to the adoption of state-of-the-art construction technology and design principles. Adoption of innovative practices is on the increase due to the relative freedom available to private investors. Various types of bituminous binders and several stabilizers are now available. Specifications of binders are being revised frequently. Revision of different Indian Roads Congress guidelines for design of flexible and rigid pavements (IRC: 37 and IRC:58) and for design of overlays (IRC:81) is also in the offing. Attempts are being made to develop guidelines for structural evaluation of pavements using Falling Weight Deflectometer (FWD) and for design of overlays based on FWD evaluation. Several new concepts are expected to be introduced in these revised guidelines. Construction technologies such as warm-mix, cold-mix, recycling, stabilization, etc, which are used in many countries are gaining popularity in India.

The main objective of the short-term course is to discuss the current practice of design of flexible and rigid pavements and design of overlays and to discuss the changes that are likely to take place in these guidelines. Besides these, related issues such as binders, binder specifications will be discussed.

It is believed that the short-course will be beneficial to practicing engineers of public as well as private organisations, consultants, academicians and researchers.

Transportation Engineering Division of Civil Engineering Department at IIT Kharagpur

Indian Institute of Technology (IIT) Kharagpur, an Institute of national importance, established in 1951, is the first in the chain of IITs in India. The department of civil engineering, which also started its programmes in the same year, has since been making major contributions to the infrastructure development of the nation. The department as well as the institute are celebrating diamond jubilee this year. The Transportation engineering division of the department, through sustainable efforts made over the last few decades has been making major contributions to the pavement engineering field. The division has been able to contribute to the revision of some important Indian Roads Congress guidelines based on the research work carried through sponsored and other projects.

Major Topics to be covered

- Pavement Design Philosophy: analytical and empirical approaches
- Existing Indian Roads Congress guidelines (IRC:37-2001) for design of flexible pavements
- Existing Indian Roads Congress guidelines (IRC:58-2002) for design of concrete pavements
- Existing Indian Roads Congress guidelines (IRC:81-1997) for design of flexible overlays
- Way forward for design of flexible and rigid pavements for Indian highways
- Structural evaluation of pavements using Falling Weight Deflectometer (FWD)
- FWD based overlay designs
- Pavement material Characterization for design of flexible and rigid pavements
- Binder Characterization: Normal and modified binders and issues related to IS:73-2006 and IRC:SP:53-2010 specifications
- Recycling techniques, warm-mixes, foam-bitumen mixes, emulsified mixes

Accommodation:

Limited accommodation (**twin-sharing**) is available on campus on payment basis on first-come-first serve basis. Requirement of accommodation may please be indicated in the registration form.

Venue: Gargi Auditorium, Vikramshila Complex, IIT Kharagpur

Registration Fee:

- Participants from government and private organisations – Rs. 10,000/-
- Teachers and scientists from academic and research institutions – Rs. 7,000/-
(Registration fee includes course material ,working lunch, tea and snacks during the course)

Interested persons are requested to register by **November 4th, 2011** by sending filled-in registration form along with appropriate registration fee as indicated above to be paid in the form of demand draft/cheque favouring "**CEP-STC, IIT Kharagpur**" payable at Kharagpur and send it to the following address.

Dr. M. Amaranatha Reddy, Associate Professor, Civil Engg Department,
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Civil Engineering Department, IIT Kharagpur



Registration Form

Name :

Gender (M/F) :

Designation :

Organization :

Mailing Address :

Email :

Mobile No :

Accommodation Required : Yes/ No
(Please tick)

Registration Fee Details : Demand draft/ Cheque for Rs.10,000/7,000

(DD/Cheque favour of No: _____ dt _____

CEP-STC, IIT Kharagpur Name of the bank: _____

payable at Kharagpur)

Registration form should reach the coordinator on or before 4th November 2011. (Photocopy of this form can also be used)

Signature

Coordinators

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