# **ELIGIBILITY**

Practicing engineers from construction and consultancy firms, government and public sector agencies, scientists/engineers from R&D establishments, teachers, post graduate and research students from engineering colleges, having interest in design and evaluation of pavements can apply.

#### ONLINE APPLICATION FOR THE WORKSHOP

Interested candidates may apply online using the following link https://erp.iitkgp.ac.in/CEP/courses.htm

You may login and register by going through the following sequence of steps.

Signup-> login-> profile fillup-> choose program-> Apply Now

The short-listed candidates (who will receive an email about short-listing) can pay the registration fee online. Details of the fee to be paid by different categories of applicants are as follows:

Participants from Private

& Government agencies : Rs. 15,000/-Teachers from Engineering Colleges : Rs. 8,000/-M.Tech/Ph.D/MS Students : Rs. 2,000/-

(Registration fee does not include the cost of travel, food and accommodation)

Government /other agencies interested in sending group of engineers may directly contact to the coordinator.

# **SPONSPORSHIP**

Agencies interested in sponsoring the workshop can communicate their interest to the coordinator.

Sponsorship Type	Amount (Rs. Lakhs)	No of participants eligible for Registration fee waiver	Presentation duration
Gold	Rs. 1.00 + GST	3	15 minutes
Silver	Rs. 0.60 + GST	2	
Bronze	Rs. 0.30 + GST	1	1

Sponsors will have the opportunity to display banners at designated places at the workshop venue.

IIT Kharagpur was established under Institute of Technology Act 1961 and is exempted from paying Income Tax under Section 10(23C)(iiiab) of Income Tax Act, 1961. As a consequence the Institute is exempted under section 194J of the Income Tax Act, 1961. Hence No TDS (Tax Deduction at Source) should be made.

#### ACCOMMODATION

Arrangement will be made to accommodate a limited number of participants in the New Guest House (NGH), Visveswaraya Guest House (VGH) and other guest houses at IIT Kharagpur campus. The number of beds is limited to 50. The rooms will be allotted to the participants, mostly twin-sharing, on a first-come first-served basis and on a chargeable basis.

Those who registered for the course after remitting necessary registration fee should send a request mail for accommodation indicating choice of the room from the following.

#### **New Guest House (NGH)**

Twin sharing room (AC) per day : Rs. 750 & Suite Room : Rs. 2000

# Visveswaraya Guest House (VGH)

Twin sharing room (AC) per day : Rs. 300 & Non-A/C room : Rs. 250

# **VENUE FOR LECTURES**

Lectures will be held in the seminar room of the Civil Engineering Department, IIT Kharagpur.

# CONTACT

# Prof. M. Amaranatha Reddy

Professor, Department of Civil Engineering Indian Institute of Technology Kharagpur 721 302, West Bengal

Email : manreddy@iitkgp.ac.in

Phone : (03222) 283450 (0), 283451(R)

(or)

#### Dr. Kranthi Kumar Kuna

Assistant Professor, Department of Civil Engineering Indian Institute of Technology

Kharagpur 721 302, West Bengal Email :kranthi@civil.iitkgp.ac.in Phone : (03222) 282470 (0) Three-Day Workshop on

Developments in

Pavement Engineering

(DiPF)



# **COURSE COORDINATORS**

Prof. M. Amaranatha Reddy Prof. K. Sudhakar Reddy & Dr. Kranthi Kumar Kuna

# **Department of Civil Engineering**

Indian Institute of Technology Kharagpur -721 302, West Bengal.

## **ABOUT THE INSTITUTION**

The Indian Institute of Technology Kharagpur is the first IIT to be setup in India and is one of the highest ranked technical institutes in India. The Civil Engineering Department was established in the year 1951 and is one of the oldest departments of IIT Kharagpur. The Transportation Engineering Section of Civil Engineering department has made significant contributions over the last four decades in the areas of Pavement Materials, Design and Evaluation of different types of pavements.

The focus of the workshop is to discuss recent developments in pavement engineering with emphasis on design, evaluation and maintenance of pavements and design of different bituminous mixes. Besides the presentations to be made by the experts, it is also planned to demonstrate different design software, equipment and structural evaluation of pavement using Falling Weight Deflectometer (FWD).

## **COURSE CONTENT**

The following topics will be covered in the workshop.

#### Pavement Design:

- Developments in the design of flexible pavements and detailed discussion of IRC:37-2018 "Guidelines for the Design of flexible pavements"
- Developments in the design of rigid pavements and detailed discussion of IRC:58-2015 "Guidelines for the Design of Plain Jointed Rigid Pavements for Highways"
- Innovative pavement for high and low volume roads panel concrete, cell filled, cement grouted bituminous mixes, etc..

#### **Pavement Evaluation and Maintenance:**

- Principles of functional and structural evaluation of pavements
- IRC: 115-2014 "Guidelines for structural Evaluation and Strengthening of existing Flexible Pavement using Falling Weight Deflectometer (FWD) Technique" and way forward
- Quality control, repair and rehabilitation of bituminous and cement concrete pavements

#### Characterization of Binders and Mixes:

- Characterisation and specifications of modified and unmodified binders
- Design of hot and cold bituminous mixes
- Design of Stone Matrix Asphalt, Gap Graded Rubberised Bituminous Mixes and High Modulus Asphalt Mixes for durable High Volume Roads

## **Laboratory Demonstration:**

 Demonstration of advanced pavement engineering laboratory facilities for characterization of binders and bituminous mixes, fatigue characteristics of bound materials including cement concrete and structural evaluation of pavements using FWD

#### **FACULTY**

Resource persons will be from IIT Kharagpur and other agencies.

## LECTURE NOTES AND CERTIFICATE

Registered participants will be given soft copies of the PPTs and workshop participation certificate.

## **COURSE COORDINATORS**

#### Prof. M. Amaranatha Reddy

Email : manreddy@iitkgp.ac.in Phone : (03222) 283450 Mobile : 9434737788

#### Dr. Kranthi Kumar Kuna

Email: kranthi@iitkgp.ac.in Phone: (03222) 282470 Mobile: 9985729800

#### Prof. K. Sudhakar Reddy

Email : ksreddy@iitkgp.ac.in Phone : (03222) 283448 Mobile : 9434021517

# **Department of Civil Engineering**

Indian Institute of Technology Kharagpur 721 302, W.B

Fax : (03222) 282254 /255303

