



INDIAN INSTITUTE OF TECHNOLOGY KANPUR
DEPARTMENT OF CIVIL ENGINEERING
KANPUR-208016, INDIA

May 4th, 2016

Dear Sir/ Madam,

Geotechnical Engineering is the branch of Civil Engineering dealing with the analysis, design and construction of foundations, slopes, retaining structures and other systems that are made of or supported by soil or rock. Analysis and Design of Geostructures under dynamic loads is always been a great challenge to most of the Geotechnical Engineers. Moreover, behaviour of soils and rocks under dynamic loads by several sources such as earthquakes, blasting, operation of machinery, construction operations, mining, traffic, wind and wave actions is not yet established / understood completely. In recent years, there is a significant advancement in the field of soil dynamics in analytical, numerical and / or experimental approaches.

Keeping these challenges in mind, Department of Civil Engineering, IIT Kanpur is pleased to announce a short-term course on "**Recent Advancement in Soil Dynamics**" from **September 13 - 17, 2016**, focuses on various aspects and issues related to dynamic properties of soil, wave propagation, vibration screening and isolation, seismic microzonation, seismic hazard analysis, liquefaction analysis and design of machine foundation. In addition, concept of geotechnical centrifuge modeling will be addressed.

The emphasis in this course is on providing the participants with an up-to-date knowledge of the challenges and advances in these areas. The topics and other information are provided in the attached course flyer for your kind consideration. The faculty includes experts from academia (India and Abroad). We will also be organizing few lab sessions and hands on exposure on commercially available softwares for demonstrating various concepts as a part of this course. All successful candidates will be provided with certificates.

We request you to share this information with your colleagues and nominate your colleagues/ scientists/ engineers to attend the course. Please do not hesitate to contact any of us, if you need more information.

Thanks and best Regards

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IIT-KANPUR



IIT Kanpur, established in 1959, is one of the first Indian Institute of Technology. The Department of Civil Engineering at IIT Kanpur is producing since 1961, high quality technical manpower needed by industry, R & D organizations, and academic institutions. The Department offers B.Tech., B.Tech -M.Tech Dual degree, M.Tech. and Ph.D degrees in Civil Engineering with six specializations, i.e., Structural Engineering, Geotechnical Engineering, Hydraulics and Water Resources Engineering, Transportation Engineering, Geoinformatics, and Infrastructure Engineering & Management. The Geotechnical Engineering division has renowned faculty and labs with state of the art equipments. This division is actively engaged in research, consultancy and developmental activities besides imparting regular teaching.

How to reach IIT-Kanpur

The campus is located on the Grand Trunk Road at Kalyanpur, about 15 KM west of Kanpur city and measure close to 420 hectares. The campus has all the amenities for developing the personal, social and academic skills of the community. Kanpur city is well connected with all the major cities in the country by rail, road and air. Kanpur Central Railway station is well connected to most cities in North, East and Central India. IIT Kanpur is located at a distance of about 16 kilometers from the Kanpur Central Railway Station.

COURSE FEES

QIP Candidates: There is no course fee for the sponsored teachers from engineering colleges (only those approved by AICTE, New Delhi). They will be paid to and fro III AC class train fare via shortest route and free boarding and lodging in the guest house/hostel of IIT Kanpur.

For selected candidates: The selected candidates will be requested to send a refundable caution deposit of Rs. 1000/- to ensure their commitment for participation in this course. DD has to be taken in favor of "Continuing Education Programme, IIT Kanpur". This amount will be refundable to those who attend the course.

Industry: The course is opened for persons from industries and R&D organisations. The registration fee is Rs. 15,000/- which will include course material and working lunch. TA, DA and Accommodation are not included in the registration fee.

IMPORTANT DATES

Last date of receiving applications	June 10, 2016
Notification of acceptance	July 01, 2016
Receipt of demand drafts	August 01, 2016

ADDRESS FOR CORRESPONDENCE

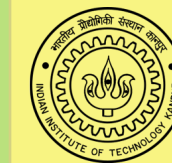
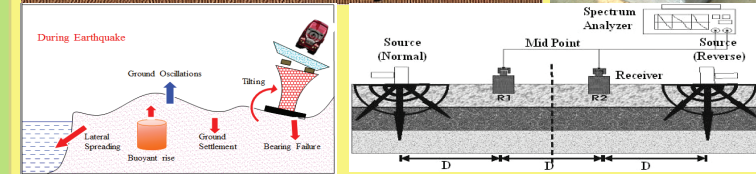
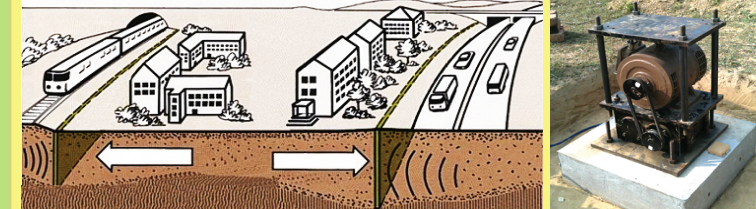
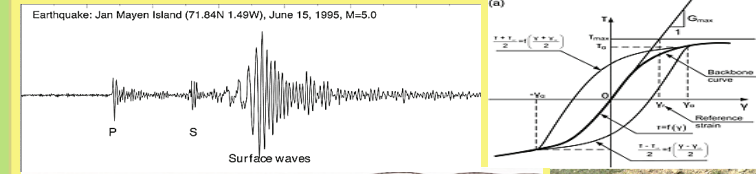
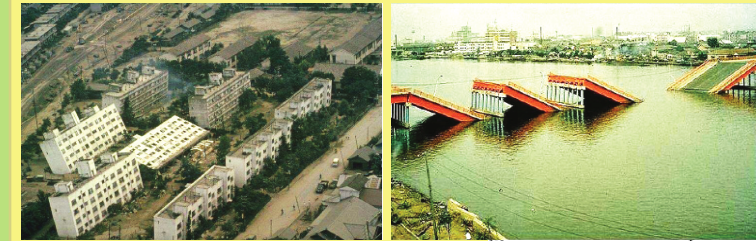
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 Department of Civil Engineering,
 IIT Kanpur, Kanpur 208016, India.
 Email: priyog@iitk.ac.in / hsrajesh@iitk.ac.in
 Contact No. 0512-259-7022/6054

Short Term Course

on

Recent Advancement in SOIL DYNAMICS

September 13 – 17, 2016



Coordinators:

Dr. Priyanka Ghosh
Dr. Rajesh Sathiyamoorthy

Organized By:

Department of Civil Engineering,
Indian Institute of Technology Kanpur,
Kanpur – 208016, Uttar Pradesh India.

Introduction

An intensive course on “Recent Advancement in Soil Dynamics” will be offered from September 13 - 17, 2016, under the Continuing Education Programme of Indian Institute of Technology Kanpur. It is sponsored by Quality Improvement Programme, All India Council of Technical Education, New Delhi. This programme will be specifically useful for persons who are concerned with teaching, research and designing geo-structures in the area of soil dynamics.

Objectives

Soil dynamics is the branch of geotechnical engineering that deals with the behaviour of soils and rocks under dynamic loads by several sources such as earthquakes, blasting, operation of machinery, construction operations, mining, traffic, wind and wave actions. This course will prepare the participants with the advanced knowledge developed recently in understanding the response of soil and rock subjected to various types of dynamic or cyclic time-dependent loading conditions. This advanced course material will be very useful for researchers, teachers, scientists and practitioners.

Venue

Short term course on “Recent Advancement in Soil Dynamics” will be held at Indian Institute of Technology Kanpur.

Participants

This course is limited to 30 QIP candidates and 10 Industry participants. Hence, kindly adhere to the deadlines as mentioned.

COURSE CONTENT

- Overview of Single and Multi DOF System
 - Wave Propagation
 - Geophysical Survey
 - Dynamic properties of Soil
 - Design of Machine Foundations
 - Vibration Screening & Isolation
 - Liquefaction
 - Seismic Microzonation
 - Sysmic Hazard Analysis
 - Geotechnical Centrifuge modelling techniques
- ◆ Demonstration of various laboratory tests for estimating dynamic properties of soil.
 - ◆ Hands-on exposure on commercially available softwares .

FACULTY

Faculty will be mainly from the **Department of Civil Engineering, IIT Kanpur**. Following external speakers with expertise in related areas will also be delivering the lectures.

- ➔ **Prof. Ikuo Towhata**, Professor Emeritus, University of Tokyo, Japan; **VP (Asia) ISSMGE**.
- ➔ **Prof. Deepankar Choudhury**, IIT Bombay, India.

Indian Institute of Technology Kanpur



Short term course on
**Recent Advancement in
Soil Dynamics**
September 13 – 17, 2016

Name: _____

Position: _____

Department: _____

Institution / _____

Organisation _____

Address: _____

Email: _____ Tel No.: _____

Educational details:

Degree	Year	University
_____	_____	_____
_____	_____	_____
_____	_____	_____

Area of Research Interest: _____

Accommodation required or not: _____

Payment details:

Candidates should send the DD in favor of “Continuing Education Programme, IIT Kanpur” only when they get the selection letter.

Demand draft no. _____ dated _____

Amount in Rs. _____ drawn at _____

Signature of _____
Head of the Department/ Organization

Signature of _____
Applicant