



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

November 03rd, 2012

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. Geotechnical challenges can be tackled through analytical, numerical and / or experimental approaches. Since, each modeling approaches has certain advantages and limitations, it is important to understand various issues associated with each approach.

Keeping these challenges in mind, Department of Civil Engineering, IIT Kanpur is pleased to announce a QIP short-term course, with focus on various aspects and issues related to numerical and experimental modeling in Geotechnical Engineering practice along with the demonstration of different sophisticated software and equipments. In addition, concept of geotechnical centrifuge modeling will also be addressed. The short-term course is "**Numerical and Experimental Modeling in Geotechnical Engineering**" from **February 04 - 09, 2013**.

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 (IITs). We will also be organizing few lab sessions 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 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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Introduction

An intensive course on Numerical and Experimental Modeling in Geotechnical Engineering will be offered from Feb. 4- 9, 2013, 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 and research on the modeling aspects of numerical and experimental geotechnical studies.

Objectives

Geotechnical engineering is the branch of 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. Geotechnical challenges can be tackled through analytical, numerical and / or experimental approaches. Since, each modeling approaches has certain advantages and limitations, it is important to understand various issues associated with each approaches. In this course, various aspects and issues related to numerical and experimental modeling in Geotechnical Engineering practice will be emphasized along with the demonstration of different sophisticated software and equipments. In addition, concept of geotechnical centrifuge modeling will also be addressed.

Course Content

- Overview of geotechnical modeling
- Fundamentals of soil mechanics
- Concept of stress and strain
- Limit analysis
- Method of stress characteristics
- Finite element analysis
- Finite difference approach
- Advanced laboratory and field testing
- Field instrumentation
- Advanced tests to determine dynamic properties of soil (cyclic triaxial test, cross hole test etc.)
- Concepts of geotechnical centrifuge modeling techniques.

The course includes demonstration of various field and advanced laboratory tests. The course will also give brief overview of commercially available softwares for implementing these techniques.

Faculty

Faculty will be mainly from the Department of Civil Engineering, IIT Kanpur. A few external speakers with expertise in related areas will also be a part of the team.

Participants

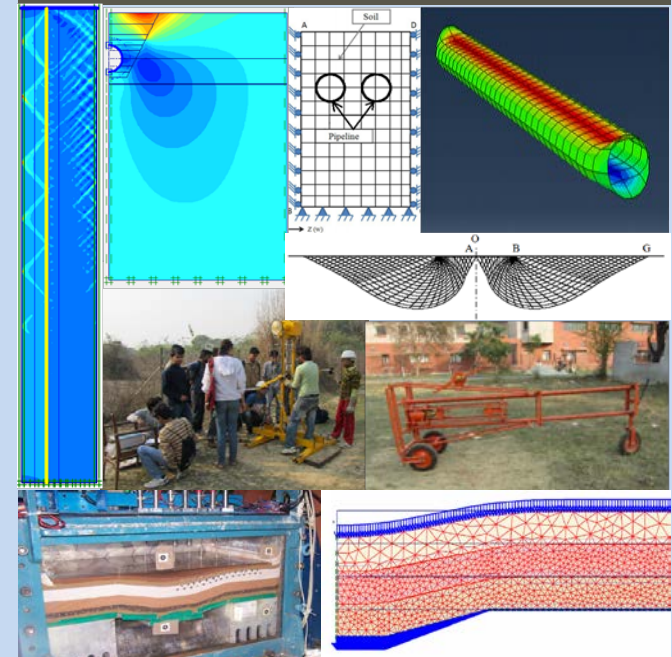
This course is limited to only 30 QIP-Sponsored participants. Hence, adhere to the deadlines as mentioned.

Venue

QIP Short term course on Numerical and Experimental Modeling in Geotechnical Engineering will be held at Indian Institute of Technology Kanpur.

QIP Short Term Course on Numerical and Experimental Modeling in Geotechnical Engineering

February 4 – 9, 2013



Coordinators:

Dr. Priyanka Ghosh
Dr. Rajesh Sathiyamoorthy

Organized by
Department of Civil Engineering
Indian Institute of Technology Kanpur
Kanpur – 208016, India.

Indian Institute of Technology Kanpur
QIP Short term course on
**Numerical and Experimental Modeling
in Geotechnical Engineering**

February 4 – 9, 2013

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 _____ Signature of _____
Head of the Department/ Organization Applicant

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 Engineering Geosciences. 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. Climate in the campus during February is generally cold with temperature ranging from 11-22 °C.

Course Fee

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 (Please send the draft after receiving the selection letter).

Important Dates

Last date for receiving applications: Nov. 26, 2012

Notification of acceptance: Dec. 3, 2012

Receipt of demand draft: Dec. 24, 2012

Accommodation details: Jan. 14, 2013

Address for correspondence

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