QIP Short Term Course on Numerical and Analytical Methods in Geomechanics

## 9<sup>th</sup> – 13<sup>rd</sup> December, 2019 at IIT (BHU)



# Organized by

Quality Improvement Program Center & Department of Civil Engineering Indian Institute of Technology (BHU) Varanasi-221005, (U.P.), India





# Coordinator

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## **ABOUT THE COURSE**

The aim of the short-term course is mainly to provide an idea for solving various geotechnical problems by using various numerical and analytical methods. The course will cover the fundamentals of constitutive models, different numerical methods as FEM, FDM, Limit Analysis and various analytical methods (Limit Equilibrium Method, Method of stress characteristics, Variational Method etc.). Faculties from renowned institutions of India will be invited for delivering lectures on these topics. Geotechnical Problems of different nature will be dealt through MATLAB and few other software. The required demonstration will be conducted.

### **ABOUT IIT (BHU)**

IIT (BHU), a public engineering institution is situated in the magnificent campus of Banaras Hindu University founded by the great visionary Pt. Madan Mohan Malaviya Ji in 1916. IT-BHU which was formed in 1969 by amalgamation of three colleges (BENCO, MINMET and TECHNO) has been converted into IIT (BHU) on 29th June, 2012. At present, IIT(BHU) has 15 departments and three inter-disciplinary schools. For more details, visit: http://iitbhu.ac.in/

#### ABOUT CIVIL ENGG. DEPT. & GEOTECHNICAL SECTION

The Civil and Municipal Engineering was established in 1949 in BENCO. In 1975, the department was rechristened to the present name Civil Engineering Department (CED). At present, CED runs seven sections. One of the most vibrant section is the Geotechnical Engineering division. There are 5 faculties, 18 Ph.D. and 15 MTech. students in this division. The section is carrying out the research activities in many dimensions of soil mechanics and foundations. The faculties cater various challenging consultancy and sponsored research projects for the various tasks given by Government and other Private organizations.

#### HOW TO REACH THE CAMPUS

Varanasi is well-connected and accessible to major Indian cities. Closest railway stations are Varanasi Junction which is about 8 Kms from the campus, Pandit Deen Dayal Upadhyaya (formerly called Mughalsarai) which is about 20 Kms from the campus, and Manduadih which is at a distance of 7 Kms from the campus. The Babatpur airport is situated about 35 Kms from the campus. There are daily domestic flights to and from Varanasi to several cities in India. The most convenient mode of transport within the city is Auto-Rickshaw and E- Rickshaw. AC cabs are also available by Ola/Uber/Varanasi Cab.

## **ABOUT VARANASI**

Varanasi, one of the seven holiest cities, is also known by the name of Kashi and Banaras. The city of Varanasi is located on the banks of the holy river Ganga and is famous for its culture, temples. It is the oldest city of the world ageing more than 3000 years, and is regarded as the city of Moksha for Hindus since centuries. The city is reputed for handi-crafts and fine-quality silks, artistic brass and copper wares. It is indeed a vibrant city with multiple dimensions of knowledge and is also a popular tourist attraction for both Indians and foreigners. Sarnath, located about 10 Kms from Varanasi is famous for the Buddhist temples, museum, excavation sites and bears the testimony of amalgamation of Indian culture with other neighboring countries.

## **REGISTRATION PROCESS**

Faculty members from AICTE recognized Institutions are eligible to attend the course. Registration for the course can be done by filling up the registration form, and posting it along with a demand draft of INR 2000/in favor of "Registrar, IIT(BHU), Varanasi" to the following address:

Dr. Manash Chakraborty Dept. of Civil Engg., IIT (BHU) Varanasi-221005, (U.P.), India

Please also email (<u>namg.stc@gmail.com</u>) a scanned copy of the registration form and the demand draft:. This amount charged is caution deposit, and will be refunded at the end of the short-term course, only if the participant attends the course. <u>No refund will</u> be given to the absentees.

#### **IMPORTANT DATES**

Last date for receiving applications: 20.11.19 Intimation to the applicants: 25.11.2019 Date of the course: 09.12.2019 – 13.12.2019

Selected participants must bring with them a passport-size photograph and a letter of nomination from the Head of their Institution stating that they are being deputed for the course.

Only to-and-fro travel cost (by AC 3-tier/ sleeper class) by the shortest route from the place of work to the venue of the course will be reimbursed. Local travel expenses will not be reimbursed.

#### **REGISTRATION FORM FOR**

QIP Sponsored Short Term Course on Numerical and Analytical Methods in Geomechanics (9<sup>th</sup> – 13<sup>rd</sup> Dec., 2019)

Name:	••
(block letters):	
Designation:	••
5	
Organization:	•••
Address:	•
PIN:	•••
Mobile No.:	••
E-mail:	••
Highest Academic Qualification:	••
Specialization:	••
<b>F</b>	
Experience (in years):	
(a) Teaching:	••
(b) Industrial:	
(b) Industrial	••
Refundable Security Denosit Details.	
Refundable Security Deposit Details.	
DD No.:Amount:	
Bank:	••
Date Signature of the Applicant	

### **SPONSORSHIP**

Prof./Dr./Mr./Ms./Mrs./

is

an employee of our institute and his/her application is hereby sponsored for the course. The applicant will be permitted to attend the short term course on "Numerical and Analytical Methods in Geomechanics" at IIT(BHU), Varanasi, to be held during December 9-13, 2019, if selected.

Signature with date of Sponsoring Authority: Designation: Official Seal :

### **GENERAL INFORMATION**

Limited accommodation is available at the guest house of IIT (BHU) on sharing basis only. However, family accommodation will not be provided. Guest house rooms will be allotted purely on first-cum-first served basis upon receipt of request from the participants regarding their requirement for accommodation. Participants are encouraged to bring their personal laptops. Scientific calculator is compulsory.

*Note: Minimum temperature in the second week of December in Varanasi is typically between 10°-15° C.*