

# 3-Day Student Short Course on Site-Specific Geotechnical Investigations for Medium & High-Rise Buildings

3 - 5 November 2016 at IIIT Hyderabad

## ABOUT THE COURSE

The short course focuses mainly on the recent advancements made in **Site-Specific Geotechnical Investigations for Medium & High-Rise Buildings**. Engineering design of foundation for medium to high rise structure is a creative, iterative and open-ended process, subject to many constraints. The complexity and uncertainty involved with the natural geologic environment makes the design of foundation for structure unique. Earthquakes are the naturally occurring events, which are mostly responsible for the property damage all around the world. The damages due to earthquakes are referred to as Seismic hazards. Liquefaction, landslides, structural disasters are most common seismic hazards. Preventing seismic events is not possible, however evaluation of seismic risks and taking effective measures in foundation design of medium & high-rise structures is very much possible, for such emergencies. To fulfill the current day requirements, Civil Engineers need awareness and knowledge of the advancements made in **Site-Specific Geotechnical Investigations for Medium & High-Rise Buildings**. The workshop will cover the past case histories with respect to their application in practice.

## PROGRAM SCHEDULE

### Day 1: 3<sup>rd</sup> November 2016

Session 1: Geotechnical Investigations for Medium & High-Rise Buildings.  
Session 2: Site-Specific Ground Response Analysis.  
Session 3: Tutorial on Ground Response Analysis using **DEEPSOIL**.  
Session 4: Tutorial on Ground Response Analysis using Cyclic1D.

### Day 2: 4<sup>th</sup> November 2016

Session 1: Design of Foundation for Buildings.  
Session 2: Evaluation of Liquefaction Potential (IS 1893).  
Session 3: Tutorial on Design of Foundations using CyclicTP.  
Session 4: Tutorial on Liquefaction Potential Evaluation - SHAKE2000.

### Day 3: 5<sup>th</sup> November 2016

Session 1: SSI for Medium & High-Rise Buildings.  
Session 2: Design of Retaining Structures.  
Session 3: Tutorial on Design of Retaining Structures using Plaxis 2D.  
Session 4: Tutorial on Design of Critical Structures using Plaxis 3D.

## REGISTRATION FEE

► **Registration fee is Rs. 3,500/-.** For students it is Rs. 2,500/-.

- \* Registration Fee Includes cost of study material, tea & lunch.
- \* Last date for Registration is 30<sup>th</sup> October, 2016, after that Rs. 500/- extra will be charged.
- \* Number of seats are limited to 40.
- \* Accommodation @ Rs. 400/person/day will be provided upon request.
- \* For registration, send DD/cheque drawn in favour of IIIT Hyderabad to coordinator.
- \* For Online Registration Please Visit: <http://eerc.iiit.ac.in>

## WHO SHOULD ATTEND?

This short course is designed especially for **Undergraduate and Post Graduate Students** of Civil Engineering to acquaint with various advanced aspects of **Site-Specific Analysis of Medium & High-Rise Buildings**.

### Note:

- 1) Personal laptops are encouraged.
- 2) Scientific calculator is compulsory.

## ABOUT IIIT HYDERABAD

International Institute of Information Technology, Hyderabad is an autonomous, self-supporting research institution established in 1998 with seed support from the Government of Andhra Pradesh. Major goal of IIIT-H is to impart a uniquely broad and interdisciplinary IT education of the highest academic quality. This is achieved through an integrated curriculum that consists of a highly diverse set of IT courses, interdisciplinary IT research projects, day-to-day interaction with industry, preparation in entrepreneurship and personality development courses. For more details, visit: <http://iiit.ac.in/>

## About Geotechnical Engineering Laboratory, EERC

Geotechnical Engineering research laboratory addresses a wide range of problems posed by the spatial variability and complex material properties of soils and rocks. Geotechnical Engineering Laboratory is involved in research activities related to soil testing, soil modeling, numerical analyses, Geotechnical Site Characterization, Ground Response analysis, Liquefaction Potential Evaluation and Estimation of Dynamic Properties of geomaterials, Dynamic Soil Structure Interaction Effects, Soft soil behavior and slope stability including progressive failure. In order to ensure the construction of safe building infrastructure and to minimize the post disaster response IIIT-H established Earthquake Engineering Research Centre. EERC is conducting extensive research in the areas like seismotectonics of Indian plates, estimation of seismic hazard, collapse simulation and damage assessment earthquake risk mitigation through awareness and preparedness. For more details, visit: <http://gte.iiit.ac.in/>

## COURSE TEAM

- \* Dr. Supriya Mohanty (Co-ordinator)
- \* M.V.Ravi Kishore Reddy (09032158604)
- \* Chamal Surendra Reddy
- \* Ambarakonda Pooja

## ADDRESS FOR COMMUNICATION

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9.30-11.00 AM	11.00-11.30 AM	11.30-1.00 PM	1.00-2.00 PM	2.00-3.30 PM	3.30-4.00 PM	4.00-5.30 PM
Lecture	Tea Break	Lecture	Lunch	Lecture	Tea Break	Lecture

*Organized By*



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