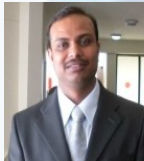


## The Faculty...



**Prof. Ikuo Towhata** is an Emirates Professor at the University of Tokyo, Japan. He is vice president Vice President for Asia, ISSMGE and Vice President of Japan Association for Earthquake Engineering. Geotechnical Society. His field of interests are: Deformation characteristics of cohesionless soils. Dynamic analysis of earth structures during earthquakes; Permanent displacement of ground caused by seismic liquefaction; Soil improvement by densification and grouting; Microscopic Observation of Granular Behavior of Sand Subjected to Shear; Dynamics of landslide and debris flow; Mechanical Properties of Municipal Waste Ground; Seismic performance-based design of geotechnical structures; Mitigation of rainfall-induced slope instability.



**Dr. Sireesh Saride** is an Associate Professor of Civil Engineering at Indian Institute of Technology Hyderabad. His expertise and research interests are in the areas of dynamic behavior of soils, pavement geotechnics, geosynthetics and ground improvement. He earned his B.Tech (2000) from Jawaharlal Nehru Technological University and his masters integrated with PhD from Indian Institute of Science, Bangalore, India in 2006. Prior to joining IIT Hyderabad in 2010 as an Assistant Professor, he pursued his post-doctoral research at the University of Texas at Arlington, during 2006-2010. Dr. Sireesh has published more than 100 referred journal, conference articles and technical reports. He is currently serving as an Associate Editor for the Journal of Ground Improvement (ICE) and Journal of Materials in Civil Engineering, ASCE.

## About IIT Hyderabad

Inventions and innovations are key words on which the foundation of IITH is based. One of India's eight new IITs – IITH started functioning in August 2008. Currently it has about 2000 students in total and offers undergraduate programs in eight disciplines, M.Sc in Chemistry and Physics, M.Tech in eight disciplines and PhD in 12 disciplines. Research is a culture among the faculty and students of IITH. This is evident from the several research projects that are ongoing at IITH. On top of the gamut of sponsored projects from various funding agencies, IITH has active collaboration with industry as well.

IITH also has an innovative academic program where the students are offered fractional credits and the first semester undergraduates are allowed to do a project of their choice. IITH always strives to offer an innovative environment where one is not afraid to experiment with high-risk ideas.

<http://www.iith.ac.in/>



## Contact

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A 10 days Course on

# Advances in Geotechnical Earthquake Engineering

**December 18-29, 2017**

Sponsored by



*Indian Institute of Technology Hyderabad*

## Course Overview

Earthquakes are not very new to India, however, a detailed research with great emphasis has been initiated after experiencing a massive earthquake near Bhuj in 2001. To date, India has been affected by several severe earthquakes (> 35) which claimed several thousands of lives and impinged a great loss to the nation. A real challenge is to predict earthquakes in advance so that the damage could be reduced, but no established scheme of frame work is available in this direction. It is necessary to understand the behavior of soils under such events to design and build the infrastructure to limit the danger. Overall, this course would create such a knowledge among the participants, prepare them to analyze such vulnerabilities of the ground and attempt to design earthquake resistant soil-structures.

## Course Objectives

- Exposing participants to the geotechnical aspects of earthquake engineering,
- Providing basic and advanced analytical tools to predict liquefaction,
- Providing exposure to practical problems and their solutions, through case studies,
- Providing exposure and hands on experience on experimental studies,
- Enhancing the capability of participants to design soil systems such as embankments and slopes under seismic conditions

## Course Content

Introduction to Geotechnical Earthquake Engineering – Fundamentals of earthquake, shaking and dynamic behavior of ground, Seismology, plate tectonics, effects of earthquake, Dynamic response analysis. Introduction to Liquefaction – Hazards, process, effects, Mechanism of onset of liquefaction, Assessment of liquefaction potential, Behavior of soils under cyclic undrained loading, In-situ test methods on liquefaction potential of subsoils, Post-liquefaction behavior of sandy soils, Mitigation of liquefaction induced damage, Seismic behavior of Slopes, Seismic behavior of Embankments. Introduction to landslides – Earthquake and rainfall induced landslides, effects, Case studies on landslides across the world, lessons learnt from past activities. Shear tests on landslide mechanism, Advanced test methods for landslide prediction.

## Registration Details

**Industry/ Research Organizations: Rs. 10,000**

**Faculty from academic institutions: Rs. 5,000**

**Undergraduate/graduate students: Rs. 2,000**

- The above fee includes the tuition fee, all instructional materials, and other essential facilities during class hours. Student participants will be provided with accommodation in IITH hostels for a nominal fee, subject to the availability of hostel rooms.
- All payments should be made in the form of a demand draft in favor of "IIT Hyderabad," payable at State Bank of India, Hyderabad.
- An additional fee of Rs. 2,000/- needs to be paid in the beginning of the course for lunch and refreshments on all 10 days.

### Important Dates

- Last date for receiving application : 15 Oct 2017\*
- Intimation to the participant : 30 Oct 2017\*
- Course dates : 18-29 December 2017

\*The maximum number of participants is limited to 50.

## Registration Form

# Advances in Geotechnical Earthquake Engineering

**December 18-29, 2017**

Please detach and send this form along with the demand draft and a proof of the present affiliation to Dr. Sireesh Saride, IIT Hyderabad.

Name: \_\_\_\_\_

Date of birth: \_\_\_\_\_

Designation: \_\_\_\_\_

Organization: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Phone: \_\_\_\_\_

Email: \_\_\_\_\_

Registration Fee Enclosed (tick one):

☐ Rs 10,000

☐ Rs 5,000<sup>#</sup>

☐ Rs. 2,000<sup>#</sup>

☐ USD 500

Draft No: \_\_\_\_\_

<sup>#</sup> Enclose a copy of your employee ID /student ID.