

9-10 December, 2015

# Geotechnical Investigations and Ground Improvement with Geosynthetics for Structural and Construction Engineers

(2-days Training Program Sponsored by TATA TISCON)

## Course Content

- Site Reconnaissance
- Planning Investigations
- Laboratory and Field Testing and Code Provisions
- Non-destructive Testing Methods
- Geotechnical Investigations Report and Interpretation
- Improving the Ground using Geosynthetics
- Basic functions and selection of Geosynthetics
- Properties of Geosynthetics and Their Evaluation
- Case Studies and Design Examples

## Schedule of events

### 9 December, 2015

- Inauguration: 0900 hrs
- Pre-Lunch Session: 0930 – 1230 hrs
- Post-Lunch Session: 1330 – 1630 hrs

### 10 December, 2015

- Pre-Lunch Session: 0930 – 1230 hrs
- Post-Lunch Session: 1330 – 1530 hrs
- Concluding: 1530 – 1600 hrs



## Resource Persons

Dr S K Shukla, Edith Cowan University, Australia  
Dr A K Choudhay, NIT Jamshedpur  
Dr Harpal Singh, GNDEC Ludhiana  
Dr H S Rai, GNDEC Ludhiana  
Dr J N Jha, GNDEC Ludhiana  
Dr K S Gill, GNDEC Ludhiana  
Dr Jagbir Singh, GNDEC Ludhiana  
Dr Harvinder Singh, GNDEC Ludhiana  
Er K S Bedi, GNDEC Ludhiana

Indian Geotechnical Society-  
Ludhiana Chapter

*In association with*

Department of Civil Engineering,  
Guru Nanak Dev Engineering College,  
Ludhiana (Punjab)

### About the Training Program

The aim of the training program is to introduce the participants about the fundamental and contemporary topics related to geotechnical and other related investigations for design of structures/ buildings and the best geotechnical practices being followed across the globe. This program will help the practicing engineers in understanding how to assess and interpret the investigation reports to take the best decision regarding a safe and cost-effective design solution. It is also intended to introduce the use of geosynthetics in routine practice which is being used now-a-days extensively worldwide as they offer the most efficient and cost-effective solutions to several Civil engineering problems, especially in areas of low bearing capacity or where the settlement poses a major design constraint. Rational design methods, based on sound concepts and standardized test techniques for determining the technical properties of geosynthetics, are now available, thus placing the geosynthetics on a firm base. The continued growth in application of geosynthetics attests to the fact they have arrived as viable construction materials for their use in a sustainable and environmentally friendly manner. This versatile material finds a wonderful application in improving the bearing capacity of weak soils such as backfill soils and helps in controlling the foundation settlements. It is therefore felt that the practicing civil engineers must acquaint themselves with the latest developments in the testing techniques & reporting and get an exposure to the fundamentals of geosynthetics and their applications in routine design practice.

### Resource Persons

Dr S K Shukla, Edith Cowan University, Australia  
Dr A K Choudhay, NIT Jamshedpur  
& Faculty of Civil Engineering, GNDEC Ludhiana

### About the Department

Civil Engineering Department has been *accredited* since 2004 by National Board of Accreditation (NBA) and also by NAAC. It is running three full time PG programmes (Structural Engg., Geotechnical Engg., Environmental Science and Engineering) and one part-time PG programme (Soil Mechanics and Foundation Engineering) along with UG programme in Civil Engineering in two shifts. The department has the state of art facilities for R&D activities. The department is actively engaged in providing consultancy services to different government and private sectors in and around Punjab with an annual turnover of approximately Rs one crore. Recently, Civil Engineering Department has been identified and declared as **QIP Centre** for Ph.D by AICTE, New Delhi from the session 2011-2012 and is supported under **FIST** scheme of *DST, GOI* and **TEQIP-II** scheme of *GOI*.

### Sponsorships

IGS Ludhiana Chapter invites industry, government agencies and other well wishers to sponsor this training program. The names/logo of the sponsors will be displayed on the banners at the venue. All payments should be made by crossed cheque or DD in favour of IGS Ludhiana Chapter. Sponsorship categories include: Sponsor: Rs 25,000/- ; Co-sponsor: Rs 15,000/-

### About the College

Guru Nanak Dev Engineering College has been recently declared as an **autonomous college** by the UGC. It was established in 1956 by the Nankana Sahib Education Trust, founded in memory of the most sacred temple of Nankana Sahib, birth place of Guru Nanak Dev Ji. The main mission for establishing the college was '*Removal of Economic Backwardness through Technology*'. To fulfil this commitment, a unique admission criterion was adopted by the trust by reserving 70% seats for students from the rural areas. At present, 07 UG and 13 PG courses are being offered in engineering. College also offers MBA and MCA courses at PG level. The college has been declared **QIP centre** for Ph.D. by AICTE in Civil Engineering, Mechanical Engineering and Electrical Engineering from the session 2011-2012.

### Geographical Location:

Longitude: 75°51'39.49" N

Latitude: 30°51'38.54" E

### About IGS-Ludhiana Chapter

Indian Geotechnical Society, New Delhi (IGS) has opened its 35th Chapter in Ludhiana with an aim to address the local civil engineering problems faced by the people of Punjab in general and geotechnical engineering problems in particular. It provides a platform to the engineers, scientists, industrialists and others who are actively associated with the geotechnical works to come together to interact, collect, synthesize and collate valuable information on the geotechnical engineering aspect of civil engineering for benefitting.

### Dates and Venue

The program will be held at Guru Nanak Dev Engineering College, Ludhiana (Punjab) on **9-10 December, 2015**.

### Who Should Participate

- Design & Govt department Engineers and Professionals
- Research Funding and Professional Bodies
- Academicians, Researchers and Students

### Accommodation

Limited accommodation is available in the College Guest House. Please note that the accommodation is not included in the registration fee and the delegates are responsible for their own accommodation.

### Travelling to Ludhiana

Ludhiana is an industrial hub of Punjab, well known for the cycle and hosiery industry. It is well connected to the rest of India by Rail, Air and Road. The local climate during the month of December will be cold with a temperature ranging between 5°C to 20°C.

**Nearest Railway Station:** Ludhiana Junction.

**Nearest Airports:** Ludhiana; Chandigarh; Amritsar

### Important Trains Halting at Ludhiana:

Shatabdi Express; Shalimar Express; Malwa Express; Amritsar Golden Temple Express; Pachim Express; Jhelam Express; New Delhi-Amritsar Express; Sachkhand Express; Dadar-Amritsar Express; Tata Hatia-Jammu Tawi Express.

### Registration Fees

Prospective delegates may submit their registration form online through e-mail at the following address.

[igs.ldh@gmail.com](mailto:igs.ldh@gmail.com)

The registration fee includes all refreshments, working lunch, teas / coffees, and a copy of the proceeding CD. The fee structure is shown below:

Students	Rs 1000/-
All other participants	Rs 2000/-

This fee can be paid by the way of Bank Draft payable at Ludhiana, in favour of *IGS-Ludhiana Chapter*, or in cash at spot on the day of registration.

**2-days Training Program on  
Geotechnical Investigations and Ground  
Improvement with Geosynthetics for  
Structural and Construction Engineers**

**(9-10 December, 2015)**

**Registration form**

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

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

Affiliating Institute: \_\_\_\_\_

Contact Detail: \_\_\_\_\_ (M); \_\_\_\_\_ (P)

e-mail: \_\_\_\_\_

Membership of IGS/ IGS-LC (Yes/No): \_\_\_\_\_; LM No. \_\_\_\_\_

**Registration fee:**

Amount (Rs) \_\_\_\_\_/- (Cash/ DD/ Multicity Cheque)

DD/Cheque No. \_\_\_\_\_; Dated \_\_\_\_\_

**Signature of applicant**

**Address for correspondence**

*Please send the registration form at*  
Harvinder Singh, Associate Professor  
Department of Civil Engineering,  
Guru Nanak Dev Engineering College,  
Gill Park, Gill Road, Ludhiana-141006,  
Punjab (INDIA).

Website: [gndec.ac.in/~igs/ldh/](http://gndec.ac.in/~igs/ldh/)

e-mail : [igs.ldh@gmail.com](mailto:igs.ldh@gmail.com);

[hs@gndec.ac.in](mailto:hs@gndec.ac.in)

Phone No.:+91-99148-00906

**Organising Committee**

**Patron**

Professor M S Saini  
Director,  
Guru Nanak Dev Engineering College, Ludhiana

**Advisors**

Professor A. Srirama Rao,  
President, IGS New Delhi  
Sh. Jai Bhagwan,  
Honorary Secretary, IGS New Delhi

Professor Harpal Singh

Professor H S Rai

Professor BS Walia

Professor Harjinder Singh  
Department of Civil Engineering,  
Guru Nanak Dev Engineering College, Ludhiana

**Chairman**

Professor J N Jha  
Head of Civil Engineering Department,  
Guru Nanak Dev Engineering College, Ludhiana

**Co-chairmen**

Dr K S Gill, Associate Professor  
Department of Civil Engineering,  
Guru Nanak Dev Engineering College, Ludhiana

**Organising Team/convenors**

Dr Jagbir Singh, Associate Professor  
(Stage management)

Dr Harvinder Singh, Associate Professor  
(Accounts and Registration)

Er Gurdeepak Singh, Associate Professor  
(Venue management)

Er K S Bedi, Associate Professor  
(Refreshment)

Er Puneetpal Singh, Assistant Professor  
(Transportation)

Er Prashant Garg, Assistant Professor  
(Accommodation)

Er Inderpreet Kaur, Assistant Professor  
(Venue decoration)  
Department of Civil Engineering,  
Guru Nanak Dev Engineering College, Ludhiana

**Location Map of Ludhiana and  
Famous tourist places....**

Darbar Sahib, Amritsar; Rock Garden and Lake, Chandigarh;  
Lodhi Fort, Ludhiana; Khalsa Heritage Complex Anandpur  
Sahib; Jallianwala Bagh; Durgiana Temple; Wagha Border;

