

## Conference reports

### The 14<sup>th</sup> International Conference on New Challenges in Geotechnical Engineering (ICNCGE-2017) (Pakistan)



**ICNCGE-2017**



**14<sup>th</sup> International Conference on New Challenges in Geotechnical Engineering (ICNCGE-2017)**

**January 23-24, 2017, Lahore, Pakistan**

The **Pakistan Geotechnical Engineering Society (PGES)** under the aegis of International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE) organized the 14<sup>th</sup> International Conference on New Challenges in Geotechnical Engineering (ICNCGE-2017), which was held at **FAST National University of Computers and Emerging Sciences (FAST-NUCES), Lahore, Pakistan** on **January 23, 2017**.

Organized by **Pakistan Geotechnical Engineering Society**, the theme of this International Conference was “New Challenges in Geotechnical Engineering”. This broad theme was kept to attract the diversity of quality papers from around the globe to explore the fast-growing challenges in geotechnical engineering and to strengthen the association between the foreign and Pakistani experts to confront them. The conference, therefore, acted as a platform for exchange of technical ideas between Consultants, Contractors, Manufacturers and academicians to share their expertise in the realm of geotechnical engineering.

The Organizing Committee comprised of Engr. Amjad Agha as President PGES, Dr. Tahir Hayat as Chairman Organizing Committee, Engr. Sohail Kibria as Convener Fund-Raising Committee, Syed Badar-ul-Hussnain as Secretary Organizing Committee and Engr. Menal Zaheer as Coordinator ICNCGE-2017, put their enormous time and efforts in making this International conference a big success and to embark a new dimension in the field of geotechnical engineering. The other members of the Organizing Committee, Engr. Abdul Khaliq Khan as Vice President PGES, Dr. Tahir Masood as Secretary General PGES, Engr. Irfan Saeed as Finance Secretary, Dr. Izhar-ul-Haq as Senior member, Dr. Ammad Hassan as Convener research paper Review Committee, Engr. Umair Aqil as Convener Tour Management Committee and Dr. Shahid Ali, Engr. Asim Iqbal, Engr. Fahad Haseeb & Engr. Rosheen Sagheer as member of Organizing Committee served their role to excellence. Student Volunteers, namely, Arsalan Gujjar, Syed Shehroz Ali, Shah Nawaz, Maseera Khurshid, Nauman Malkani, Zeeshan, Haseeb, Ali Nawaz Cheema and Mzاهر Abbas of Civil Engineering department, FAST-NUCES along with Anoosh Zaheer of Geography department, University of Punjab had put their best efforts to make the conference successful.

The conference was very well attended by more than 300 participants including the esteemed international guests from Japan, Korea, Kazakhstan, Australia, Norway, Malaysia and Singapore, dignitaries, professionals, organizational members, manufacturers and students. The participants had brought together the best of ideas to meet the new challenges in geotechnical engineering on the platform of PGES. The presented papers were published in conference proceedings with a volume of 275 pages. The proceedings contain 34 research papers of which 21 papers were presented orally during the conference sessions and remaining 13 were presented in the poster session. The research papers were also published in an electronic form on DVD and were provided to all the participants.

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Photo 1. Group photograph of the Chief Guest, Keynote Speakers, Executive Committee and 14<sup>th</sup> ICNCGE-2017 the Organizing Committee

Under the main theme of “New Challenges in Geotechnical Engineering”, the following sixteen (16) sub-themes were covered in the conference:

1. Field Investigations/Testing
2. Geomatics Techniques
3. Laboratory Testing
4. Analysis and Design
5. Problematic Soils
6. Ground Improvement
7. Landslides Mitigation
8. Conservation of Archeological Sites
9. Deep Excavations
10. Hazard Zonification
11. Numerical Modeling
12. Geotechnical Construction
13. Performance and Monitoring
14. Environmental Geotechnical Engineering
15. Academia and Professional Practice
16. Case Histories.

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Dr. Amir Muhammad, Rector FAST National University of Computers and Emerging Sciences (FAST-NUCES) graced the opening ceremony of ICNCGE-2017 with his presence. President PGES, Engr. Amjad Agha welcomed the gathering by his opening address. The Chairman of the Conference Organizing Committee, Dr. Tahir Hayat gave a brief introduction about the conference. Dr. Tahir Hayat also acknowledged the sponsors for generously supporting PGES to keep geotechnical profession in the limelight in Pakistan.

Engr. Amjad Agha accentuated the participant's attention to the multiplicity and successful practices of geotechnical engineering.

*“Geotechnical Engineering is a specialty within the broad spectrum of civil engineering technology that ranges from pure sciences at one extreme to technical application at the other. Geotechnical engineers in their practice draw from disciplines extending from earth sciences such as geology and seismology, to field inspection and construction control. There are three attributes for the successful practice of Geotechnical Engineering. These are i) knowledge of precedents ii) familiarity with soil mechanics and iii) working knowledge of geology”*

The opening ceremony was followed by the series of keynote lectures and technical sessions. The conference was comprised of the following three technical sessions:

- Dams, Hydropower and Deep Foundations (Technical Session-1)
- Geohazard, Slope stability and Rock Mechanics (Technical Session -2)
- Geo-Investigations and Testing (Technical Session -3)

Prof. Ikuo Towhata, Vice President for Asia (ISSMGE) gave the first Keynote Lecture (Technical Session-1). The lecture was titled as **“Long-term Slope Instability and Geotechnical Hazards in Fault Rupture Zones after Big Earthquakes”**. After the commanding opening of the technical session-1, six oral presentations were given by the presenting authors related to **“Dams, Hydropower and Deep Foundations”**.

After the first technical session, the delegates enjoyed the Conference lunch arranged by the organizers. A thematic technical exhibition was also arranged on the day of conference enabling participants to learn about the solutions offered by professionals towards the new challenges in geotechnical engineering. There were 15 exhibitors including; contractors, consulting firms, manufacturers and importers of engineering equipment. Delegates enjoyed the exhibition and the poster presentations during the lunch and high tea sessions.

The second Technical Session **“Geohazard, Slope stability and Rock Mechanics”** was held after the lunch in which Prof. Eun Chul Shin, Vice President of Korean Geotechnical Society delivered the second Keynote lecture titled **“Collapse of Tunnel During Construction of Underground Highway”** followed by six oral presentations related to the theme of technical session which helped the participants in developing better understanding of Geohazard, Slope stability and Rock Mechanics.



Photo 2. President PGES, Engr. Amjad Agha delivering the opening address



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At the end of Technical Session-2, Memorandum of Understanding (MOU) was signed between Fast National University of Computers and Emerging Sciences, Pakistan and Exploratory and Creative Educational Program for Future City Design, Incheon National University, South Korea. **Dr. Amjad Hussain Shah**, Director FAST-NUCES and **Prof. Eun Chul Shin**, Director of Creative Educational Program for Future City Design, Incheon National University, South Korea signed the memorandum to ensure the promotion and exchange of academic and research activities of mutual interests between both universities.



Photo 3. Keynote Speaker, Prof. Eun Chul Shin during his lecture on “Collapse of Tunnel during Construction of Underground Highway”



Photo 4. Prof. Eun Chul Shin and Dr. Amjad Hussain Shah shaking hands after signing of the MOU between Incheon National University, Korea and FAST-NUCES

Lastly, the invited guest from Australia, Mr. Robert Goldsmith shared his research and worldwide experience on “Challenges in geotechnical investigations at difficult and remote sites”.

To add the golden feather in the cap of success, the Organizing Committee also conducted a national level student competition amongst Bachelor’s students “B.E. Geotechnical Project of the Year-2017”. The two winner groups received the shields and certificates along with the cash prize of Rs. 10,000/- each.

In the closing session, words of farewell and gratitude to participants were expressed by Dr. Izhar-ul-Haq, President PGES, Engr. Amjad Agha distributed the shields amongst the organizing committee members and acknowledged them for their untiring efforts and hardwork.



Photo 5. Invited Guest Speaker, Mr. Robert Goldsmith sharing his expertise with the audience



Photo 6. Dr. Tahir Masood, Secretary General PGES & CEO Berkeley Associates, receiving his shield from the President PGES

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Overall, the day was full of nice discussions, meetings and greeting new friends, exchanging business cards, smiles and laughters. The fruitful exchange of ideas and discussions between all participants of ICNCGE-2017 was indeed a positive sign for confronting the New Challenges in Geotechnical Engineering.



Photo 7. Authors presenting their research paper in Technical Session-3 (Geoinvestigations and Testing)  
(L to R): Mr. Garry Peach, Engr. Sohail Kibria, Mr. Sulman Ali Sohail, Mr. Robert Goldsmith

This International Conference ended the next day after a sight-seeing tour to the historical walled city of Lahore at Delhi Gate and other old historical structures, which was organized for the interested delegates on January 24, 2017. The tourists visited **Shahi Hamam (Royal Baths)**, **Shahi Qila (Lahore Castle)**, **Badshahi Mosque**, **Wazir Khan Mosque** and **Sikh Gurdwara**, the heritage sites in Lahore, Pakistan. The delegates also visited the **Akbari Mandi (Akbari Old Market)**.

The food history of Lahore alone is enough to lure the people all over the world to taste the diverse spices of Lahore, that itself keeps the hearts of Lahoris alive and hence, make them stay true to the term “Zinda Dilan-e-Lahore” (*Lively Lahore*).



Photo 8. Visitors at the Wazir Khan Mosque, Walled City, Lahore

*Menal Zaheer*  
Coordinator of ICNCGE-2017