IGS TC-Soil Reinforcement Workshop in Barcelona Final Program

20 – 21 January 2020 | BarcelonaTech | Barcelona, Spain

20 JANUARY 2020 – MONDAY

Opening Session
9:00-10:00
Session Chair: Gerhard Bräu, Germany

Welcome remarks
Chungsik Yoo, IGS President, South Korea

Activities of the Spanish IGS Chapter (IGS-Spain)
(Representation of IGS-Spain)

Reliability based design and analysis of geosynthetic reinforced structures
10:00-13:00 (including 30 min coffee break)
Session Chair: Richard Bathurst, Canada

A simple approach for probabilistic internal stability analysis and design of reinforced soil walls
Richard Bathurst, GeoEngineering Centre at Queen’s-RMC, Canada

Reliability analysis of external stability of geosynthetics reinforced soil retaining walls
Pietro Rimoldi, Consultant, Italy

Reliability analysis of geogrid pullout capacity
Yoshihisa Miyata, National Defense Academy, Japan

First order reliability method for reinforced soil walls
Pietro Pezzano, Officine Maccaferri, Italy

Round table and open discussions, short presentations from the floor

Geosynthetic encased columns
14:00-18:00 (including 30 min coffee break)
Session Chair: Erol Güler, USA

Basic design principles of GECs
Dimiter Alexiew, Consultant, Germany

Materials of GECs and some important case studies
Oliver Detert, Huesker Synthetic GmbH, Germany

Installation Issues of GECs
Steffen Taetz, Züblin AG, Germany

Alternative Installation Issues and their effect on design
Björn Böhle, Keller Grundbau GmbH, Germany

Alternative design methods
Boštjan Pulko, University of Ljubljana, Slovenia

Earthquake behavior of GEC improved foundations
Erol Güler, George Mason University, USA

Round table and open discussions, short presentations from the floor
21 JANUARY 2020 – TUESDAY

**Serviceability Limit States: analyses, design, specification**
09:00-13:00 (including 30 min coffee break)
*Session Chair: Pietro Rimoldi, Italy*
*Session Co-Chair: John Sankey, USA*

- SLS in Eurocodes and Numerical models for SLS
  - Ivan Puig Damians, Universitat Politècnica de Catalunya – BarcelonaTech, Spain
- Semi-dynamic models for SLS in seismic conditions
  - Giovanni Biondi, University of Messina, Italy
- SLS in BS8006 and real case studies/problems under SLS criteria
  - Patricia Guerra Escobar, Geosynthetics Ltd, UK
- SLS in EBGEO, taking care of the strength-strain-characteristic of reinforcements
  - Lars Vollmert, NAUE GmbH & Co. KG, Germany
- SLS in the African contest
  - Edoardo Zannoni, Maccaferri SA (Pty) Ltd, South Africa
- SLS in the Asian contest
  - Mike Dobie, Tensar International Limited, Indonesia

Round table and open discussions, short presentations from the floor

**Advancements, Developments and State of the Practice for International Codes for design of Reinforced Soil Structures**
14:00-18:00 (including 30 min coffee break)
*Session Chair: Robert Lozano, USA*

- Introduction of speakers and structure of workshop
  - Robert Lozano, Geosynthetic product specialist
- AASHTO Migration from the Simplified Method to the Stiffness Method
  - Richard Bathurst, GeoEngineering Centre at Queen’s-RMC, Canada
  - Tony Allen, State Geotechnical Engineer, Olympia, Washington State, USA
- Recent updates to AASHTO LRFD for Reinforced Soil Structures
  - Keith Brabant, P.E., Vice President, Engineering Reinforced Earth Company
- Japanese technical standards on geo-structures for road applications and technical manual on geosynthetic-reinforced walls
  - Yoshi Miyata, National Defense Academy of Japan
- Examples of the strength, weakness and scope of the Chinese, Hong Kong and United Kingdom Codes of Practice for reinforced soil
  - Colin J F P Jones, Director of Electrokinetic Limited, UK
- Australian experience on codes and guidelines for soil reinforcement
  - Amir Shahkolahi, Global Synthetics Pty Ltd
- Reinforced Fills Covered by The Future Eurocode 7 – Concepts and Limitations
  - Nicolas Freitag, Terre Armée group
- The effects of the new Eurocode 7 reinforced ground chapters on the German EBGEO
  - Gerhard Bräu, Technical University of Munich – Zentrum Geotechnik
- ISSMGE TC218 and Outcome of Review Addressing 12 Current Codes on Reinforced Fill Structures
  - John Sankey, Chairman of the ISSMGE TC218 Committee on MSE Structures and Reinforced Soil Slopes

Round table and open discussions, short presentations from the floor