Geophysics for Critical Infrastructure

Thursday 16th July 2015, BGS Keyworth

PROGRAMME

09.30	Registration, tea & coffee
10:00	Introduction and welcome: Helen Reeves, EGGS, and Oliver Kuras, NSGG
10:10	**Session 1a**: *Reducing uncertainty in ground models with near-surface geophysics*
10:10	**Keynote Address** **George Tuckwell (RSK Ltd): *Role of near-surface geophysics in the new BS5930 Standard***
10:40	Jim Whiteley (TerraDat) et al.: *Filling the gaps: mapping variations in material layer thickness for a proposed pipeline using near-surface geophysics*
11:00	Oliver Chrisp (AECOM) et al.: *Non-intrusive investigations of rail tunnels*
11:20	Refreshments and networking
11:40	**Session 2**: *Novel/unusual applications of near-surface geophysics in critical infrastructure projects*
11:40	Jonathan Chambers (BGS) et al.: *Proactive Infrastructure Monitoring and Evaluation (PRIME): automated time-lapse resistivity imaging for the assessment and management of infrastructure earthworks*
12:00	Anna Stork (University of Bristol) et al.: *Passive seismic monitoring of CO2 storage sites*
12:20	**Poster Session**
12:20	Jonathan Thomas (TerraDat) et al.: *Seismic surveys – Limitation and solutions for bedrock mapping and determining geo-mechanical properties for wind farm development and slope stability studies*
12:30	Timothy Grossey (RSK Ltd) et al.: *Case Studies: Critical Geophysics for Critical Infrastructure*
12:40	Sebastian Uhlemann (BGS) et al.: *Geoelectrical imaging of moisture dynamics in engineered slopes*
12:50	Oliver Chrisp (AECOM) et al.: *Geophysics for risk management on new infrastructure routes*
13:00	Buffet lunch and networking. **In parallel: Annual General Meeting of the Engineering Group**
14:00	**Session 1b**: *Reducing uncertainty in ground models with near surface geophysics*
14:00	Sarah Tallett-Williams (Imperial College) et al.: *A Review of Development of Shear Wave Ground Profiles for UK Strong Ground Motion Instrument Sites using Geophysical Methods*
14:20	Stephen Owen (RSK Ltd) et al.: *Pipeline routing – An Integrated Geophysical Survey using multiple techniques successfully incorporated into a Critical Infrastructure Project*
14:40	Bernd Kulessa (Swansea University) et al.: *3D electrical geophysics integrated into ground characterisation and monitoring informs permeable reactive barrier installation and brownfield site re-development*
15:00	Refreshments and networking
15:20	**Session 3**: *Integrating near-surface geophysical approaches with conventional geotechnics*
15:20	Mark Vardy (National Oceanography Centre) et al.: *Ground modelling through inversion of high-resolution marine geophysical data: A new approach to fully integrated offshore site characterisation*
15:40	John Reynolds (RIL) et al.: *Integrated interpretation of geotechnical and seismic data in the development of 3D Ground Models for offshore renewable energy projects*
16:00	Dan Roberts (AECOM) et al.: *Slab track remediation using integrated geophysical geotechnical approach for ground Investigation*
16:20	Discussion and wrap-up: Helen Reeves, EGGS, and Oliver Kuras, NSGG
16:30	Meeting close

Online registration required for all delegates: https://bgs.eventhq.co.uk/geophysics-for-critical-infrastructure.
Directions to Keyworth: http://www.bgs.ac.uk/contacts/sites/keyworth/home.html.
Further details on www.nsgg.org.uk/meetings.

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