

## BGA Annual Conference 2020

Tuesday 21<sup>st</sup> July at 10:00-11:15

**ONLINE**



Due to the COVID-19 pandemic the British Geotechnical Association ANNUAL CONFERENCE 2020 cannot be held as a physical event. Instead it will be held as three ONLINE sessions on:

Tuesday July 7<sup>th</sup> July 10:00-11:15

Tuesday July 14<sup>th</sup> July 10:00-11:15

Tuesday July 21<sup>st</sup> July 10:00-11:15

This flyer provides details for the 21<sup>st</sup> July event.

### **Geotechnical challenges of offshore pipelines**

**Dr Indrasenan Thusyanthan, Atkins**

Offshore pipelines are fundamental lifelines for the supply of oil and gas around the world. This talk will present the geotechnical challenges faced during the design, installation and maintenance of offshore pipelines and will cover several aspects of geotechnics linked to offshore pipelines. The importance of understanding soil classification and its limitations, the fundamentals of pipe-soil interaction and upheaval buckling will be presented. Typical methods of offshore pipeline burial, ploughing and trenching, and the complexities in associated geotechnical assessment will be discussed. Challenges in operation and maintenance of offshore pipelines will be presented.

### **Lessons for geotechnical engineers from an expert witness**

**Neil Smith, Geotechnical Consultant**

The experience of being drawn into a contractual dispute which may 'turn legal' is always a painful process for defendants and is often very lengthy. There are also substantial financial implications even if the major part of the burden is borne by insurers. Firstly, the positions of the Company will be discussed, this is generally the party named in the dispute and carries Professional Indemnity Insurance (PII), so the Company's Insurer is also involved and will carry substantial influence in the way the dispute is handled and decided. Secondly, the employee involved will be discussed, who is likely to experience substantial stress and may be subjected to heavy scrutiny and criticism.

### **Harnessing sustainable energy from the ground: a geotechnical perspective**

**Dr David Taborda, Imperial College London**

The need to meet increasingly stricter sustainability targets in order to reduce carbon emissions has led to the development of technologies that focus on delivering low-carbon heating and cooling to buildings. A possible solution for this decarbonisation challenge is to use the ground as a thermal storage medium, with heat being extracted during the winter and excess heat being stored during the summer. This talk will focus on the design and performance of thermo-active geo-structures, which combine the traditional role of providing stability to above-ground structures with that of heat exchange eg. thermo-active pile foundations and retaining walls.

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In case of any query please contact BGA Co-ordinator

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## The Speakers

### Dr Indrasenan Thusyanthan, Atkins

Dr Thusyanthan is a Fellow of the Institution of Civil Engineers (FICE), Chartered Engineer (CEng) and Chartered Marine Engineer (CMarEng) with over 20 years of experience covering geotechnical designs, project management and research. He received a first class degree and PhD from the University of Cambridge, where he also served as a lecturer. His experienced spans across UK, Middle East, South East Asia and Australia. He was awarded the “Bill Curtin Medal” and the “Roscoe Prize in Soil Mechanics” from the ICE. He has authored over 60 journal and conference publications and is currently Chief Engineer in Atkins and Discipline Lead for numerical analysis for the ground engineering division.



### Neil Smith, Geotechnical Consultant

Neil Smith is a geotechnical consultant and has been working in the field for over 50 years, employed at different times by consulting and contracting firms. For over 20 years, he was a Director of a small specialist consultancy that succeeded in avoiding an insurance claim for the whole of that period. In the latter half of his career to date, he has mixed ‘real’ project work with expert witness and claims commissions. He has given expert advice to claimants and defendants, many of the latter being geotechnical specialists. He has also acted as a court-appointed joint expert and as the geotechnical expert on a three-person dispute review tribunal. He has seen dispute processes from all angles.



### Dr David Taborda, Imperial College London

David graduated in Civil Engineering from the University of Coimbra in 2004, joining Imperial College London in 2006 to undertake his doctoral studies involving the development of constitutive models with emphasis on modelling of liquefaction-related phenomena and completed his PhD in 2010. After working at GCG, David returned to Imperial College London as a Lecturer, being promoted to Senior Lecturer in 2017. David is leading research on Ground Source Energy systems, combining the development of efficient modelling strategies for thermo-active structures and experimental characterisation of temperature effects on geomaterials.



## Further Information

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