

UNIVERSITY OF
BIRMINGHAM

Midland Geotechnical Society

Meeting Notice

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Honorary Secretary:
Scott O'Neill-Gwilliams
scott.oneill@aecom.com

Tel: 0121 2148194

Meeting Venue

Lectures start 7pm

Haworth Lecture Theatre 101,
Chemistry, University of
Birmingham B15 2TT

Refreshments are available prior to the meeting in the Shell lounge, Department of Mechanical and Civil Engineering, from 6:15 onwards.

Monday 6th March 2017

56th Rankine Lecture

Prof Richard Jardine, Imperial College London

Geotechnics & Energy

Geotechnical Engineering has matured sufficiently to contribute to some of society's grand challenges. This 56th Rankine Lecture considers the pressing problem of ensuring vital energy supplies while also recognising, mitigating and dealing with the climate consequences of fossil fuel consumption.

The Lecture's three main sections report recent geotechnical research relating to these wide ranging topics, illustrating some aspects of each with specific examples from the Speaker's portfolio. The first focuses on research to support offshore hydrocarbon production, considering platform foundations on the continental shelf and large landslide geohazards in deeper water.

The second considers research into climate change impacts in warming permafrost regions and engineering to raise flood defences founded on difficult organic soils. The final section reports on current research that is having a major impact on offshore wind turbine foundations and hence renewable energy economics.

The Lecture emphasises that integrating geology and rigorous analysis with advanced laboratory and field experiments is the key to resolving the complex geotechnical problems raised; careful full-scale field monitoring is also essential to checking reliability in practice. A collaborative approach is vital to such multi-faceted research and the contributions of the Speaker's International and British co-workers are recognised throughout the Lecture.

About The Speaker: Richard Jardine is Professor of Geomechanics and Deputy Head of Civil and Environmental Engineering, where he undertakes research, administration and both undergraduate and post graduate teaching. His earlier assignments include being a College Consul for Engineering and the Business School (2012-15), leading the Geotechnics group (2005-2011) and Panel membership for the UK's national Research Assessment Exercises in 2008 and 2014. He was elected Fellow of the UK's Institution of Civil Engineers in 2001, the Royal Academy of Engineers in 2002 and the City and Guilds Institute in 2008.

This lecture has been supported by sponsorship from:

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