



# The Institution of Engineers, Malaysia

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## 56<sup>th</sup> Rankine Lecture on Geotechnics and Energy

Organised by the Geotechnical Engineering Technical Division, IEM  
BEM Approved CPD/PDP Hours: 2 Ref No: IEM16/HQ/176/L

**Speaker: Professor Richard Jardine**

**Date/Day: 26 July 2016 (Tuesday) Time: 5.30 pm – 7.30 pm**

**Venue: Tan Sri Prof. Chin Fung Kee Auditorium, 3rd Floor, Wisma IEM, PJ**

### SYNOPSIS

Geotechnical Engineering has matured sufficiently to contribute to some of society's grand challenges. This 56<sup>th</sup> Rankine Lecture considers the geotechnical engineering related pressing problems 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 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.

### PROFILE OF SPEAKER



**Richard Jardine** is Professor of Geomechanics at Imperial College London, where he has been a member of staff since 1981, taking his Chair in 1998. He acted as Head of Geotechnics until 2011, Consul for Engineering and the Business School until 2015 and is currently Deputy Head of Civil and Environmental Engineering.

His research covers offshore geotechnics, soil characterisation, field instrumentation, soft ground engineering, geohazards and climate change impact. He has also consulted on many major onshore and offshore projects and has been an Associate of Geotechnical Consulting Group since 1985. He is a Fellow of the Royal Academy of Engineering, the ICE and the City and Guilds Institute. He has worked as a visiting professor in Singapore, Japan and China and where he is currently a Ministry of Education distinguished overseas scholar at Zhejiang (ZJU) and Wenzhou Universities. He has published over 200 papers and won 17 UK and International research prizes. His named talks include the Geotechnique, Coulomb, Zeng, Bishop and Sowers Lectures.

Ir. Yee Thien Seng

**Chairman**  
**Geotechnical Engineering Technical Division, IEM**

### ANNOUNCEMENTS TO NOTE

1. Preferential admission to talk shall be accorded to IEM members (**pre-registration and online registration are NOT required**). **Telephone and/or fax reservation will NOT be entertained.**
2. **Non members** may also attend the talk but will need to pay a registration fee of **RM 50** and an administrative fee of **RM 15**. GST is inclusive.
3. For members of affiliated organisations, there will be no registration fee payable. However, they are requested to produce their membership card as proof of membership. For the list of affiliated organisations, please refer to IEM website at [www.myiem.org.my](http://www.myiem.org.my) under International / MoU.
4. Limited seats are available on a "first come first served" basis (maximum 100 participants).
5. IEM members are required to produce membership cards for confirmation of attendance (CPD purpose).
6. Latecomers will not be allowed to enter if the lecture hall is full nor be entitled to CPD.
7. **IEM members who fail to produce their membership cards will be charged a fee of RM 25. GST is inclusive.**

### ADMINISTRATIVE FEE

1. Kindly be informed that an administrative fee of RM 15 is payable for talks organised by IEM. GST is inclusive
2. The fee would be used to cover overhead costs, building maintenance expenses as well as to contribute to Wisma IEM Building Fund.
3. All contributions will be deeply appreciated by IEM.
4. Student Members are however exempted.

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