

## EVENING TALK ON GEOSYNTHETICS FOR SUSTAINABLE DEVELOPMENT: CALCULATING EMBODIED CARBON OF CONSTRUCTION SOLUTIONS

(Organised by the Geotechnical Engineering Technical Division, IEM)

BEM Approved CPD/PDP Hours: 2.0 Ref No: IEM17/HQ/167/T

Day/Date: Friday, 28<sup>th</sup> April 2017

Time : 5:30 pm – 7:30 pm

Venue: Tan Sri Ir. Prof. Chin Fung Kee Auditorium, Wisma IEM, PJ

Presenter: Prof. Neil Dixon

### Abstract:

Our planet is experiencing unprecedented change: Population is increasing, resources are being depleted and the climate is changing. The global challenge is to provide an acceptable standard of living for all without using up natural resources and causing irreparable damage to the planet's climate. The new United Nations programme *Transforming our world: the 2030 Agenda for Sustainable Development* came into effect in January 2016. This establishes 17 Sustainable Development Goals, which will guide the decisions taken by nations and organisations over the next 15 years. These include: ensuring availability and sustainable management of water and sanitation for all; building resilient infrastructure to promote inclusive and sustainable industrialization; making cities and human settlements inclusive, safe, resilient and sustainable; and ensuring sustainable consumption and production patterns. Each country and region faces specific challenges in pursuit of sustainable development. A key driver for changing behaviour is climate change.

Against this backdrop of international agreements and goals, the geosynthetics industry has the potential to play a prominent role in providing solutions that help to deliver the vision of global sustainable development. The lecture will discuss the drivers for change in the way infrastructure is delivered and will challenge the geosynthetics industry to play a key role in reducing carbon emissions and dealing with the consequence of climate change. As an example, it will detail a framework for calculating embodied carbon of construction solutions that incorporate geosynthetics and in comparison to other solutions, and highlight the common pitfalls of such analyses.

### Profile of Speaker:



**Prof. Neil Dixon** is Professor of Geotechnical Engineering in the School of Civil and Building Engineering at Loughborough University, UK, and he just completed 3 years academic leader for the cross University research challenge of Changing Environments and Infrastructure. He has been a university academic for over 28 years and has 35 years of experience in geotechnical engineering research and practice. He has authored over 175 refereed publications in the areas of geosynthetic applications, sustainable construction, landfill barrier design guidance, slope failure mechanisms, pore-water pressure regimes in slopes, in situ measurement of soil/waste properties, slope stability assessment, instrumentation development, slope process modelling and impacts of climate change. Prof. Dixon was an elected Council Member of the International Geosynthetics Society for 8 years and is a past Chairman of the International Geosynthetics Society, UK Chapter. Prof. Dixon currently leads development of the acoustic emission landslide monitoring method using Slope ALARMS sensors. He heads the UK Climate Impact Forecasting For Slopes (CLIFFS) Network, is part of the Infrastructure Slopes: Sustainable Management and Resilience Assessment (iSMART) UK research consortia, and was a member of the Future Resilient Transport Networks (FUTURENET) project team. Prof. Dixon has been awarded multiple prizes for publications and innovation.

**Ir. Yee Thien Seng**

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

### ANNOUNCEMENTS TO NOTE

- **Non-IEM members** may also attend the talk but will need to pay a registration fee of **RM50** and an administrative fee of **RM15**. GST is inclusive.
- Limited seats are available on a "first come first served" basis (maximum 100 participants). **To secure your seat, kindly register online at [www.myiem.org.my](http://www.myiem.org.my).**

### ADMINISTRATIVE FEE

- Kindly be informed that an administrative fee of **RM15** is payable for talks organized by IEM. GST is inclusive.
- IEM Student Members are however exempted.

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