



THE INSTITUTION OF ENGINEERS, MALAYSIA

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"TALK ON THE SEVERN BARRAGE – EUROPE’S LARGEST PROPOSED MARINE RENEWABLE ENERGY PROJECT: HYDRO-ENVIRONMENTAL STUDIES".

(Organised by Water Resources Technical Division, IEM)

Date : 28th May 2014 (Wednesday)
Time : 5.00 – 07.30 pm
Venue : Tan Sri Chin Fung Kee Auditorium, 3rd Floor,
Wisma IEM, Petaling Jaya
Speaker : Professor Roger A. Falconer

SYNOPSIS

The presentation will review the main Severn Tidal Power EIA research studies undertaken by the Hydro-environmental Research Centre, at Cardiff University, particularly with regard to the proposed Severn Barrage, Europe’s largest marine renewable energy project and now in the hands of the private sector. Emphasis will focus on research assessing the potential hydro-environmental impact in the estuary for various tidal power options and the implications for morphological and flood risk assessment. An outline will also be given of research undertaken by Cardiff University, in collaboration with Aberystwyth University, on light penetration and bacterial-sediment interactions on the water quality in the estuary, together with the likely impact of a barrage on the estuary’s response to climate change and sea level rise. The results will show that two-way power generation – not previously considered in much detail – offers the opportunity to provide almost as much power as ebb tide generation only, reduce the peak disturbance to the grid, minimise many of the perceived environmental impacts and offer even enhanced benefits in terms of flood risk and recreational opportunities in the estuary, particularly upstream of a barrage. Future research studies by Cardiff university will focus more on studying nutrient fluxes in the estuary, pre- and post- any barrage, together with investigating the scope for operating a barrage in such a way that the basin could be used to reduce carbon levels by controlled eutrophication.

Biodata of Speaker

Roger A. Falconer is CH2M HILL Professor of Water Management, Director of the Hydro-environmental Research Centre in the School of Engineering at Cardiff University. He was previously Professor of Water Engineering and Head of the Department of Civil Engineering at the University of Bradford. He manages a range of research contracts on hydro-environmental modelling and has published over 400 papers and technical reports in the field. He is a Fellow of the Royal Academy of Engineering (RAEng), the Learned Society of Wales, the Institution of Civil Engineers and is currently President of the International Association for Hydro-Environment Engineering and Research. His computer models have been used extensively in over 100 Environmental Impact Assessment studies worldwide and he consults regularly on major UK and international projects. He was a member of the Government’s Expert Panel for the Severn Tidal Power Feasibility Project and a member of the Expert Panel and Regional Committee of Hafren Power.

ANNOUNCEMENT TO NOTE

1. Talk is **STRICTLY** for IEM members only (pre-registration is **NOT** required). **Telephone and/or fax reservation will NOT be entertained.**
2. Non Members may also attend the talk and will be charged a registration fee of RM 50 and an Administrative fee or RM 10.
3. For affiliate members, there will be no registration fee, However, They are requested to produce their Membership Card as a proof of Membership, for the list of affiliate, Please refer www.myiem.org.my/content/memorandum_of_understanding469.aspx
4. IEM members are required to produce your **membership cards** for confirmation of attendance (CPD purpose).
5. Latecomers will not be allowed to enter if the lecture hall is full nor be entitled to CPD.

IEM members who fail to produce their membership cards will be charged a fee of RM20.00

FUNDS FOR IEM NEW BUILDING (WISMA IEM)

Kindly be informed that participants will be charged **RM10.00** administrative fee for talks organized by IEM. The fee will be used for overhead costs, building maintenance expenses as well as to support the purchase of Wisma IEM. However, students are exempted. Your understanding is much appreciated.

**BEM Approved CPD/PDP: 2 Hours
IEM14/HQ/152/T**

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Signature:

The talk is organised in conjunction with the Signing Ceremony for the Memorandum of Understanding (MOU) between the **Institution of Engineers, Malaysia (IEM)** and **the International Association for Hydro-Environment Engineering and Research (IAHR)**.

Tentative Program:

Time	Program
5:00 pm	Arrival of Guests
5:30 pm	Welcoming Speech Dato Ir. Lim Chow Hock, President of IEM
5:45 pm	Invited Technical Talk – “The Severn Barrage – Europe’s Largest Proposed Marine Renewable Energy Project: Hydro-Environmental Studies” Professor Roger A. Falconer, President of IAHR
6.30 pm	Introduction of IAHR Dr. Chris George, Executive Director of IAHR
6:45 pm	Lauching of IAHR Malaysia Chapter
7:00 pm	Signing Ceremony of IEM-IAHR's MOU

Introduction of IAHR

The International Association for Hydro-Environment Engineering and Research (IAHR), founded in 1935, is a worldwide independent organisation of engineers and water specialists working in fields related to the hydro-environmental sciences and their practical application. Activities range from river and maritime hydraulics to water resources development and eco-hydraulics, and ice engineering through to hydro-informatics and continuing education and training. IAHR stimulates and promotes both research and its practical application, and by so doing strives to contribute to sustainable development, the optimisation of world water resources management and industrial flow processes. IAHR accomplishes its goals by a wide variety of member activities including: working groups, research agenda, congresses, specialty conferences, workshops and short courses; IAHR publishes several leading peer-reviewed journals including the Journal of Hydraulic Research, the Journal of River Basin Management and the Journal of Hydro-Environment Research. IAHR has recently launched the practice-oriented Journal of Water Engineering and Research (JAWER) in partnership with the World Council of Civil Engineers. IAHR also publishes monographs and congress proceedings as well as the Hydrolink magazine which includes short articles on current developments in the world of hydro-environment engineering. IAHR collaborates with leading national and international organisations, and in international programmes such as UNESCO, WMO, UN Water, GWP, and ICSU. For more information, visit homepage at www.iahr.org

Dato’ Ir. Hj. Hanapi b. Mohamad Noor
Chairman
Water Resources Technical Division, IEM