The University of Hong Kong 14–19 December 2009

# THE CROUCHER FOUNDATION Advanced Study Institute on

Recent Developments in Nearshore Coastal Water Quality Research: Prediction, Hydro-biological Interactions and Management

# December 14 – 19, 2009 The University of Hong Kong

# 

Over the past decade, our ability to predict the environmental impact of major coastal pollution discharges has improved substantially. However, there are still many gaps in our understanding of near shore coastal water quality. In particular, the complicated interaction of non-point source pollution and surface runoff with wave and tide-induced currents in the littoral zone cannot be adequately described in existing 3D tidal hydrodynamics models. Other marine environmental research challenges include: nearshore hydrodynamics, fate and transport of endocrine disrupting compounds; beach water quality prediction; environmental impacts of seawater desalination; Lagrangian transport; ecological risk assessment and public engagement; real time data-driven models for coastal management.

The objective of the meeting is to update established engineers and scientists (from Hong Kong and the region) in academia, government, and industry of recent developments in the prediction and management of nearshore coastal water quality, with emphasis on fundamental research relating to the above aspects.

### **Key Themes**

- Nearshore hydrodynamics; mixing and transport
- Water quality modelling/hydro-biological interactions
- Beach water quality forecasting and management
- Environmental impacts of seawater desalination

#### Lecturers

- Professor Robert Dean, University of Florida, USA
- Professor Roger Falconer, University of Cardiff, UK
- Professor Peter Franks, Scripps Institution of Oceanography, UC San Diego, USA
- Professor Stanley Grant, University of California, Irvine, USA
- Professor Gerhard Jirka, University of Karlsruhe, Germany
- Professor David Kay, University of Wales, UK
- Professor Guus Stelling, Delft University of Technology, Netherlands





#### **Course Director**

Professor Joseph Hun-wei Lee (The University of Hong Kong)

#### **Organising Committee**

Professor Roger Falconer (The University of Cardiff, U.K.) Professor Gerhard Jirka (University of Karlsruhe, Germany) Professor Winston Lung (The University of Virginia, U.S.A.) Professor Paul Harrison (Hong Kong University of Science and Technology)

#### **ASI Organisation**

The ASI is intended to be a high-level teaching activity where the selected topics are treated in depth by lecturers of international standing, and new advances on the subject. There will be lectures followed by case studies and group discussions. A poster session will run throughout the ASI, and field visit to related laboratories / research sites are being planned. The ASI is primarily aimed for established scientist and researchers, and a limited number of postdoctoral fellows and doctoral students actively working on related research.

#### **Applications/Inquiries**

To maximize interaction between lecturers and course participants, the meeting is limited to 60 participants. Applicants should complete the attached form (please attach a one page CV stating the reasons for wishing to attend this ASI) and return to Course Director or ASI Secretariat on or before <u>September 30, 2009</u>.

For queries please contact the ASI Secretariat: Ms L. Hung, Department of Civil Engineering, The University of Hong Kong, Pokfulam Road, Hong Kong. Tel: (+852) 2859-2663 Fax: (+852) 2559-5337 Email: asi2009@hku.hk



# THE CROUCHER FOUNDATION

# Advanced Study Institute on Recent Developments in Nearshore Coastal Water Quality Research: Prediction, Hydro-biological Interactions and Management

December 14 – 19, 2009 The University of Hong Kong

## **REGISTRATION FORM**

To: Ms. L. Hung c/o Department of Civil Engineering The University of Hong Kong Tel.: (+852) 2859-2663 Fax No.: (+852) 2559-5337 Email: asi2009@hku.hk

From:	Name: (Mr./Ms./Mrs./Dr./Prof.)		
		(Surname)	(Given Name)
	Title:		
	Affiliation:		
	Address:		
	Tel.:		
	Email:		
	Form of presentation: Poster	Attend	only

Please state reasons for attending the ASI and attach a one page CV as appropriate.

For applicants from Mainland China, please tick the box if you require an invitation letter to apply for an entry visa into Hong Kong.

