IAHR 2017 **37th IAHR WORLD CONGRESS**
13-18 August, 2017
Kuala Lumpur, Malaysia

Supported by Spain Water and IWHR, China

ONE DAY WORKSHOP ON

INTRODUCTION COASTAL PROCESSES & MANAGEMENT

12 August 2017
(Saturday)

Universiti Teknologi Malaysia, Kuala Lumpur

Organised By

HR Wallingford
Working with water

Nowadays, most of coastal area is threatened by the risk of coastal flooding and erosion. The risk will increases as existing man-made defences deteriorate and as a result of sea level rise due to climate change. The development and natural resources close to the sea are often under pressure. Therefore, constraints on public spending and a growing awareness to preserve the natural coastal environment are significant to ensure the coastal area is protected and its management is sustainable.

This one-day workshop by Dr. James Sutherland will introduce and discuss the methods used in designing and planning coastal engineering and management. It is important to understand wave/current dynamics and morphological processes before contemplating any development nearby the coastal area. These processes include wave generation and propagation, tides and transport of sediments resulting changes both on the seabed and on beaches. Predicting how the coastline will continue to change, with or without development, is a fundamental requirement for planning its management.

Overall, this course covers the theory and principles necessary for all those at the start of their coastal management and engineering careers.

WHO SHOULD ATTEND?

- Those who interested to broaden knowledge on coastal engineering and management especially people who just started to work on coastal management and engineering.
- This course also relevant for engineers, coastal landowners, regulators and operating authorities. Delegates will gain practical advice that can be directly implemented into the design methods for coastal engineering and management schemes.

COURSE CONTENT

- Coastal management planning - An overview of the history of coastal planning and management.
- Waves and tides - An introduction and requirements for coastal management (extremes and climates).
- Beach sediment transport/ morphology processes.
- Coastal management options - An introduction to type options, appropriate application and assessing the potential effects of such works, for example on the environment.

Dr. James Sutherland, PhD, BSc, Diploma Technical Director at HR Wallingford

Dr. James Sutherland is a Technical Director in the Coasts and Estuaries Group at HR Wallingford, as well as an internationally known specialist in coastal & marine processes with 25 years' experience. He has worked on projects in over 20 countries in Europe, the Middle East, Asia-Pacific and Africa.

Dr. James have successfully managed and delivered many projects ranging from small desk assessments through physical model studies to large and complex international research and consultancy projects at HR Wallingford.

He was a project manager for HR Wallingford's development of pyxis and FluidEarth (a software tools for integrated environmental modelling) from 2011 to 2014. He was also appointed as R&D coordinator for HR Wallingford in 2013. He has served on the steering committees of the EC projects COAST3D and CONSCIENCE and the EPSRC project "New Understanding and Prediction of the Storm Impacts on Gravel Beaches".

He is a vice chair of the IAHR Technical Committee on Coastal and Maritime Hydraulics and have shared the Halcrow prize (2004) and the David Hislop prize (2012) from the Institution of Civil Engineers. He is presently on the steering committees of the EC Horizon 2020 project HYDRALAB plus and the NERC project Integrating Coastal Sediment Systems.

Area of expertise:

- Near shore hydrodynamics.
- Sediment transport (including scour around coastal structures and coastal erosion)
- Beach management and wave forces on maritime structures
- Scour and forces on monopoles, sea water intakes and diffusers; cable and pipeline exposure offshore and at landfalls; and sediment ingress at sea water intakes.

Program

8.30 am - 8.50 am	Registration
8.50 am - 9.10 am	Opening Address
9.10 am - 10.30 am	**Slot 1 - Coastal Management Planning** - An overview of coastal planning and strategic management
10.30 am - 11.00 am	REFRESHMENTS
11.00 am - 12.45 pm	**Slot 2 - Waves and tides** - An introduction to wave generation/propagation and tidal fluctuation.
12.45 pm - 2.00 pm	**LUNCH**
2.00 pm - 3.30 pm	**Slot 3 - Beach sediment transport/ morphology processes.** - Morphology process on beaches
3.30 pm - 3.45 pm	**REFRESHMENTS**
3.45 pm - 5.00 pm	**Slot 4 - Coastal management options** - An introduction to type options, appropriate application and assessing the potential effects of such works, for example on the environment.
5.00 pm - 5.30 pm	Q & A session
	FINISH

Pre-Congress Event of the 37th IAHR World Congress

Organise by:

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