THE HONG KONG POLYTECHNIC UNIVERSITY
香港理工大學

DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING
土木及環境工程學系
CEE

Environmental Fluid Mechanics of Wind and Ocean Energy

Prof. Ye LI

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ABSTRACT

Wind and ocean energy have been recognized as promising alternative energy resources during the past decade, although considerable fluid mechanics issues underlying have not been resolved. In this talk, I begin with sketching these issues based on the physics of fluid underlying them and describe the formulation of new methods, and the requirement of new testing method as well as the demand of new facility. After that, I will illustrate them with three example. The first one is the design and testing of tidal current turbines. The second one is the development of site measurement techniques and numerical methods for the interaction between atmospheric boundary layer and wind turbines. The last one is about the development of laboratory testing method and numerical method for floating point absorber wave energy converters in resonance stage. I will demonstrate the importance, challenges and new opportunities in the relevant field.

Date: **26 June 2019 (Wednesday)**
Time: **3:30 - 4:30 pm**
Venue: **Room Y407, 4/F, Block Y,**
The Hong Kong Polytechnic University,
181 Chatham Road South,
Hunghom, Kowloon, Hong Kong

SPEAKER'S BIOGRAPHY

Prof. Ye Li is a Professor at School of Naval Architecture, Ocean and Civil Engineering Shanghai Jiaotong University (SJTU), Founding Director of SJTU Multiple function towing tank, Fellow of ASME, Associate Fellow of AIAA and senior member of IEEE. He is internationally recognized for his expertise in offshore technology and for his extensive works in theoretical, numerical and experimental studies on marine hydrodynamics. He has been an associate editor of ASME Journal of Offshore Mechanics and Arctic Engineering, Renewable Energy, Renewable Energy and Sustainable Energy Review, American Institution of Physics(AIP) Journal of Renewable and Sustainable Energy. He has published about 100 papers in journals and conferences. Prior to joining SJTU, as a senior scientist, he led the ocean modeling effort at U.S. National Renewable Energy Laboratory(NREL) of DOE. Prof. Li received his PhD from Mechanical Engineering Department at UBC in 2007.

***** All Interested Are Welcome *****

For further information, please contact Dr HF Duan at Tel. 3400-8449 or hf.duan@polyu.edu.hk.
Certificates of attendance will be provided to participants if they attend the whole lecture.