

Supported by:



**Title: Masterclass in Offshore Wind Farm Development
1-day Course**

Date/Time: Tuesday, 25th June 2019 / 09:00 hrs to 17:00 hrs

**Venue: Mercure Singapore Bugis,
122 Middle Road, Singapore 188973**

Over the past two decades power generation from Offshore Wind has grown at an incredible rate; leaving other marine renewable energy resources in its wake. In the coming decade the Offshore Wind industry expects to install more than 15,000 wind turbines, with the UK, Germany, and China accounting for 40% of all foundation installations. Floating wind turbines look set to finally see commercial deployment, following several successful prototype offshore wind turbines installed with floating foundations, including: Hywind (Norway), WindFloat (Portugal), Forward - Fukushima Pilot (Japan), and Seatwirl (Sweden), all of which are currently operational.

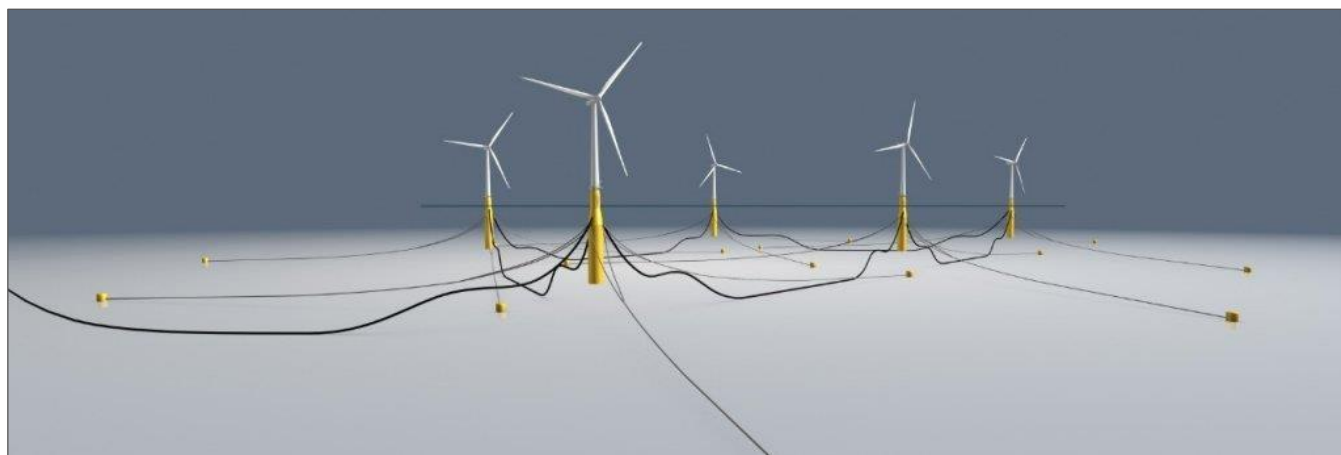
Course Synopsis

This one-day course is aimed at those looking for key insights into the Offshore Wind market and Offshore Wind Farm (OWF) developments. Emerging trends are examined in the context of socio-economic drivers using examples of technological innovations. The key design, installation and operational considerations that drive the development of fixed and floating offshore wind farms will be explored including a closer look at the Hywind Scotland Project, the world's first commercial floating wind farm. In addition, considerations concerning other essential OWF components such as the Inter Array Cables (IAC), Offshore Substation (OSS) and Export cables (EC) are presented. Finally, the pertinent challenges with OWF installation are addressed. The course concludes with insights into the World's present and future energy trends, with a focus on Asia, before an open Q&A session.



Course Programme

- 0900 – 0930 Introduction
Welcome/HSE/Admin/Housekeeping/Introductions & Icebreaker.
Learning objectives.
- 0930 – 1030 Market Overview & Analysis: World & Asia
Emerging trends and market projections. Offshore wind technologies and innovations.
- 1030 – 1045 Morning Break
- 1045 – 1230 Fixed Offshore Wind Farms
WTG Foundations, Inter-Array Cables & Turbines. Insights into commercialised concepts and technological innovations currently in the pipeline.
Case study: East Anglia ONE OWF (UK)
- 1230 – 1330 Lunch
- 1330 – 1500 Floating Offshore Winds Farms
Floating substructure concepts and design challenges. Considerations for operations & maintenance.
Case study: Hywind Scotland (UK)
- 1500 – 1515 Afternoon Break
- 1515 – 1600 Offshore Substations
Topside & substructure concepts and technical comparisons. Key design and O&M considerations.
- 1600 – 1645 Installation Vessels
Vessels, preferred installation methods & examples. Installation challenges.
- 1645 – 1700 Wrap-up & Q&A



Speaker's biography: Dr. Riz Sheikh PhD DIC MEng ACGI CEng CMarEng MIMarEST
Metocean Specialist, Metocean Hub Ltd.



Dr Rizwan Sheikh (Riz) is a Metocean Specialist with close to 20 years “hands-on” experience. He received a First-Class Master of Engineering Degree from Imperial College in 1996, for which he was awarded the Sir Bruce White Prize for outstanding achievement in Fluid Mechanics. He subsequently went on to complete a doctoral thesis in Applied Hydrodynamics in 2004 under the supervision of Professor Christopher Swan of Imperial College London. More recently in 2016 Riz successfully completed the University of Stanford course on Machine Learning.

Over the course of Riz's career he's supported numerous major Oil & Gas projects when serving as a Technical Authority in Shell and Petronas Carigali. He's provided a full range of consultancy services and conducted R&D for BMT, DNV-GL (formerly Nobel Denton) and Fugro as well as published several conference and journal publications. In May 2017 Riz incorporated Metocean Hub Limited through which he supports the installation of the East Anglia ONE OWF as well as providing consultancy services to a wide range of organisations as well as serving as Expert Witness for Metocean related matters. Riz is currently the Course Lead for the IMarEST Metocean Awareness Course and regularly delivers customized industry courses on Metocean Engineering & Data Science to clients in the offshore sector.

Registration Form

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Delegate Information

Company Name: _____

Contact Name: _____ Job Title: _____

Company Address: _____

Tel: _____ Email: _____

Registration Options

IMarEST Member rate **S\$ 680**

IMarEST Non-Member rate **S\$ 760**

Payment Method

Please invoice Cheque Bank transfer

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For full details on terms and conditions including cancellation policy please visit:
www.imarest.org/events

Delegates will receive one year's complimentary affiliate IMarEST membership.

Email the completed form to: jenny.seow@imarest.org or send by post to:

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