

# Offsite Events

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## Introductory Course on Ocean Renewable Energy: A Training Workshop for New Entrants into the Southeast Asia Marine and Offshore Energy Market

**Organizer:** Sustainable Energy Association of Singapore

Date: Thursday 7 June

Time: 9.00 am – 5.00 pm

Location: Pasig Room 14/F Lopez Bldg, Meralco Ortigas Center, Pasig City, Philippines

**Objective:** To equip the participants with adequate knowledge about ocean renewable energy, specifically tidal and wave energy. At the end of the training workshop, the participants are expected to:

1. *Understand the principles and concepts related to ocean renewable energy, specifically tidal and wave energy*
2. *Describe resource assessment, environment impact assessment, conversion technologies, and economics of ocean renewable energy.*
3. *Be well-oriented with ocean renewable energy industry including the supply chain involved in project planning, commissioning, operations and maintenance and decommissioning*
4. *Appreciate the opportunities of ocean renewable energy in Southeast Asia*
5. *Identify market entry challenges and potential risks of ocean renewable energy in Southeast Asia*

**Target audience:** Finance community, utilities, project developers, renewable energy engineers, renewable energy researchers

**Programme Outline:** The 1 day workshop will consist of 5 sessions covering various aspects of marine renewable energy that may be of interest to the target audience.

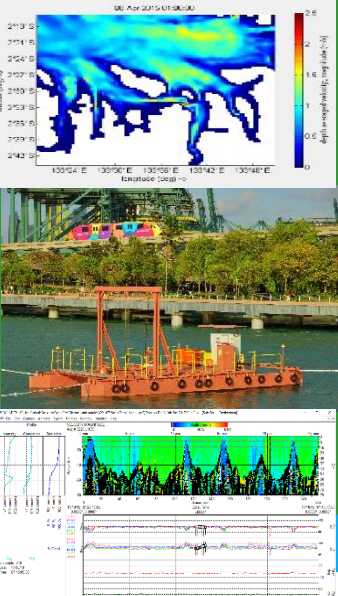
Session 1: Introduction to Ocean Renewable Energy (ORE) & the ORE Industry

Session 2: Market Opportunities & Challenges of Ocean Renewable Energy in Southeast Asia

Session 3: Experiences in Tidal Energy and Wave Energy Project Development

Session 4: Assessments for ORE: Resource, Environment, and Techno-Economics

Session 5: Investing on Ocean Renewable Energy Technologies & Projects



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The Southeast Asian (SEA) region has an ambitious target of tripling its renewable energy power generation by 2025. Marine renewable energy, as an emerging energy source, has not been as widely known as other renewable technologies such as hydro, geothermal, solar and wind.

Marine renewable energy is a classification of renewable energies whose sources originate from the marine environment. It includes tidal energy, wave energy, salinity gradient and ocean thermal energy conversion. Each kind has its own characteristics and require specific devices to harness the different types of energy. It is well suited to the SEA region due to the proximity of many countries to large bodies of ocean.

Given the growth in demand for power, marine renewable energy represents an attractive investment opportunity. Collaboration amongst industry, government, academe and supply chain stakeholders will be critical to more widespread adoption.

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## Target Audience

- Finance community
- Utilities
- Project developers
- Renewable Energy Engineers
- Renewable Energy Researchers

## Programme Outline

The 1 day workshop will consist of 5 sessions covering various aspects of marine renewable energy that may be of interest to the target audience.

- Session 1:** Introduction to Ocean Renewable Energy (ORE) & the ORE Industry
- Session 2:** Market Opportunities & Challenges of Ocean Renewable Energy in Southeast Asia
- Session 3:** Experiences in Tidal Energy and Wave Energy Project Development
- Session 4:** Assessments for ORE: Resource, Environment, and Techno-Economics
- Session 5:** Investing on Ocean Renewable Energy Technologies & Projects

Organised by:



In Partnership with:



Sponsored by:





## About SEAS

Launched in July 2006, the Sustainable Energy Association of Singapore (SEAS) is a non-profit organisation which represents the interests of companies involved in Renewable Energy, Carbon Trading, Energy Efficiency, Clean Development Mechanism, and Finance.

Sustainable Energy Centre of Excellence (SECOE) serves as a hub for the region and a focal point for policy makers, technology providers, project developers, and financiers to discuss, collaborate and establish appropriate policies for each country. This will ensure the ease of implementing RE in the various countries by bringing thought leaders as well as implementers in renewable energy and energy efficiency together for structured programs, trainings, roundtables as well as high level policy and technology dialogues.

## About OceanPixel

OceanPixel Pte Ltd (OP) is a Singapore start-up company spun off from the Energy Research Institute at Nanyang Technological University (ERI@N) incorporated in September 2014.

Offering technical services, data catalogues and report products, we have various global involvements and currently handle projects in Singapore, Indonesia, and the Philippines with potential projects in other parts of Asia. Strategically partnering and collaborating with experts from the UK and, with access to marine renewable energy thought leaders in the South East Asia (SEA) region, OP has positioned itself to be the pioneer company dedicated to ocean renewable energy planning and development in SEA and beyond.

## About the Trainers

### Dr. Ralf Starzmann

Sales Director and Head of Hydrodynamics

Ralf Starzmann graduated as a mechanical engineer of the University of Stuttgart, Germany, in 2007. Until 2008 he worked with VOITH Hydro in their ocean energy department on wave and tidal energy devices. In 2008 he started as a Ph.D. student at the University of Siegen, Germany, specializing on the aero-acoustic analysis of the Wells turbine for ocean wave energy conversion. After completing his Ph.D. in 2012, he joined SCHOTTEL and is working on tidal energy related issues. Since 2015 Ralf is the Sales Director and Head of Hydrodynamics of SCHOTTEL HYDRO. Ralf is also a member of the German mirror committee for IEC TC 114.



### Dr. Michael Abundo

Managing Director, OceanPixel

Dr. Michael Abundo is a green techno-preneur who specializes in marine renewable energy sector. Michael is actively helping increase the uptake of marine renewable energy in South East Asia and he has been involved in pilot projects in the region for both wave and tidal energy 'localized' for tropical conditions. He has served as a faculty member and research laboratory head for the Instrumentation, Robotics, and Controls Laboratory at EEE Institute, University of the Philippines.



## Registration Form

- ☐ Yes! I would like to register for this programme.
- ☐ I am unable to attend but please put me on your mailing list.

	Early Bird (Registration with payment made on/before 4 May 2018)	Normal Fee	Group Fee	No. of Delegates	Fee Payable
<input type="checkbox"/>	USD 350	USD 450	USD 400		

\* Fees include refreshments, lunch and programme collateral.

\* Enjoy group discount for 4 or more delegates registered at the same time from the same organization and same billing source.

\* Please print and complete additional sheets where necessary.

## Participant's Details

- Name (\*Dr/Mr/Mrs/Ms): \_\_\_\_\_ NRIC: \_\_\_\_\_  
Designation: \_\_\_\_\_ HP No: \_\_\_\_\_ Email: \_\_\_\_\_
- Name (\*Dr/Mr/Mr/Ms): \_\_\_\_\_ NRIC: \_\_\_\_\_  
Designation: \_\_\_\_\_ HP No: \_\_\_\_\_ Email: \_\_\_\_\_
- Name (\*Dr/Mr/Mr/Ms): \_\_\_\_\_ NRIC: \_\_\_\_\_  
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- Name (\*Dr/Mr/Mr/Ms): \_\_\_\_\_ NRIC: \_\_\_\_\_  
Designation: \_\_\_\_\_ HP No: \_\_\_\_\_ Email: \_\_\_\_\_

## Organization's Details

Company Name: \_\_\_\_\_

Company Address: \_\_\_\_\_  
\_\_\_\_\_ Postal: \_\_\_\_\_

Contact Person's Name (\*Dr/Mr/Mr/Ms): \_\_\_\_\_

Tel: \_\_\_\_\_ Fax: \_\_\_\_\_

Email: \_\_\_\_\_

## Administrative Information

### Registration and Payment

Please complete the enclosed registration form and forward it together with your **cheque at least 7 days before the commencement of the programme to**

**Sustainable Energy  
Association of Singapore  
180 Kitchener Road  
Singapore Sustainability Academy, City  
Square Mall, #06-10, Singapore 208539**

Crossed cheque should be made payable to  
**"Sustainable Energy  
Association of Singapore"**

### Cancellation

SEAS reserves the right to change programme venue, cancel or reschedule the programme if necessary or warranted by circumstances beyond our control.

There will be no refund of fees for withdrawal. However, if the registration participant is unable to attend, a representative may be allowed to attend at no extra cost. Please inform us of the changes via email **7 days** before the commencement of the programme.

### Confirmation of Registration

Registration is confirmed only upon receipt of registration form and payment.

For more enquiries, please contact:

**Ms. Jowene Chan at:  
Tel: 6338 8578  
Email: jowene@seas.org.sg**