

# RINA WESTERN BULLETIN

## **Technical Meeting Notice**

Topic:

## Sustained Coastal Ocean Observations Using Autonomous Ocean Gliders

When: Wednesday, 27 February, 17:30 refreshments, 18:00 start Where: Engineers Australia - Auditorium, 712 Murray St. West Perth

Cost: Free

Registration: Not required for this event.

#### WA Section RINA Committee

Chairperson: Sammar Abbas

Vice Chair: TBA

Secretary: Matthew White Treasurer: Andy Phillips Members: Tim Gourlay Cheslav Balash

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Division

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#### **Presentation:**

**Sustained Coastal Ocean Observations Using Autonomous Ocean Gliders** 

# Prof. Charitha Pattiaratchi Professor of Coastal Oceanography at The University of Western Australia Oceans Graduate School and the Oceans Institute

#### Abstract

Coastal observations include a variety of tools, both traditional and novel, such as satellites, moored instruments, shore based systems and remotely operated vehicles. The Integrated Marine Observation System (IMOS) was set-up to undertake sustained observations of the oceans and coastal regions around Australia. The IMOS national facility for ocean gliders is hosted at UWA and an overview of ocean glider deployments around Australia will be presented. Ocean gliders are autonomous underwater vehicles designed to operate in water depths up to 1000 m and duration of several months. The gliders are programmed to provide data through satellite communication when it is at the surface and it is also possible to control the path of the glider during its mission. In this presentation, I will describe how ocean gliders operate, how the data collected by the vehicles contribute to science and the challengers of operating a fleet of gliders around Australia.





#### **About the Presenter**

Prof. Charitha Pattiaratchi is Professor of Coastal Oceanography at The University of Western Australia Oceans Graduate School and the Oceans Institute. He has pioneered the use of ocean gliders in Australia as the leader of the Integrated Marine Observation System (IMOS) since its inception 10 years ago. Over a career spanning more than 30 years, The research programs developed by Prof Pattiaratchi integrates ocean observation, numerical modelling and synthesis to define the role of physical processes in pathways of water and sediment (including morphological changes), weather and climate and ecosystem function in the coastal ocean (including estuaries and beaches) and the adjacent deep ocean.

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13-15 MAR 2019
PERTH CONVENTION AND EXHIBITION CENTRE

#### **AOG 2019**

RINA WA is proud to confirm our involvement in this year's AOG 2019. We will have a booth at the event and have organised a stream of presenters as part of the <u>AOG Knowledge Forum</u>. Speakers will present across the disciplines of Renewable Energy, Offshore Installation and Floating Systems, further details can be found below.

#### **RINA Booth**

The RINA booth will be located at Stand A18. A provisional floor plan can be found at the following link: <a href="https://aogexpo.com.au/wp-content/uploads/2019/01/AOG2019">https://aogexpo.com.au/wp-content/uploads/2019/01/AOG2019</a> Floorplan 220119.pdf

If you would like to be involved with staffing the stand, please contact the RINA committee and we will be in touch to work out availability and rostering.

#### **RINA Chief Executive**

Trevor Blakeley, RINA Chief Executive, from London will also attending AOG 2019. Trevor will be making appearances at the booth and at the Technical Forum.

#### **Technical Forum**

The RINA Technical Forum will be held on Friday the 15<sup>th</sup> of March in the <u>'Knowledge Forum'</u> at AOG 2019. The program of speakers shall be as follows:

Session 1: Floating Solutions	
9:30 am	Jeff Baker, Lloyds Register, "LNG bunkering technical and training challenges – an update"
10:00 am	Paul Steinmann, Veem, "Gyro stabilization systems for offshore vessels"
Session 2: Offshore Operations	
10:45 am	Fabrizio Pistani, Intermoor, "Quick disconnect of mooring lines"
11:15 am	David Field, ICON Engineering, "The CAN-Ductor system for offshore well foundations"
Session 3: Cleaner Energy	
12:00pm	Ian Sherrington, Waves Group UK, "Offshore wind farms"
12:30pm	Water Purio, LNG-MFI, "LNG as a marine and transport fuel and its role in the security of our country's energy supply"

#### **Poster Presentation Session**

To embrace local expertise and developments in Naval Architecture, RINA WA will also be hosting a series of short Electronic Poster Presentations in the form of an e-poster. The e-posters will be scheduled during the AOG session breaks and will be held at RINA's booth (A18).

Wednesday March 13	
12.00 pm	Jeff Baker, Lloyds Register. Talking your assets language - Digital Compliance Explained
12.20 pm	Kaja Bremer, ONA Engineers. Using neural networks to predict the response of a floating structure
Thursday March 14	
12.00	Piotr Sujkowski, INTECSEA. A State-of-the-Art Semisubmersible Design
12.20	Rasoul Hejazi, UWA. The Impact of second-order FPSO Motions on the Fatigue Performance of Large Diameter SCRs
12.40	Hugh Wolgamot. UWA. Design approach for fast estimates of greenwater risks on ship-shaped FPSOs during tropical cyclones

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#### **RINA NEWS & Events**

#### **Upcoming Technical Presentations**

RINA WA is always looking for interesting technical presentations and people to present them. If you have a topic or know of someone who does, please feel free to contact the WA section and we can look at getting it added to our event calendar.

#### <u>Australian Naval Architect</u>

Thank you to everyone who responded to the call for news, we had a great uptake and hope to see it all published in the next edition of the ANA.

### <u>LinkedIn</u>



Join for event updates and discussion.

Royal Institution of Naval Architects (RINA) – WA Section

#### RINA WA Section Library

The library is now located at Bentley Systems. Access to the library can be arranged by contacting:

Daniel Veen: <u>Daniel.Veen@bentley.com</u>
James Clarkson: <u>James.Clarkson@bentley.com</u>

Catalogue in Excel format is available at https://www.rina.org.uk/walibrary

#### Continuing Professional Development (CPD) Record

This is a reminder that all Fellows, Members and Associate-Members who are in or seeking active work must maintain and develop their competence and knowledge. This requirement is obligatory. The Institution reserves the right to monitor a member's CPD achievement through inspection of the CPD Record. More information on the CPD and recommendations on the format of the Record can be found on the website:

https://www.rina.org.uk/continuing\_professional\_development.html

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