

PROGRAM OVERVIEW

OMAE 2025

44th International Conference on Ocean, Offshore and Arctic Engineering
June 22-27, 2025 | Vancouver, British Columbia, Canada



Conference Wi-fi @ Vancouver Convention Centre - East

SSID: OMAE2025

Password: OMAE2025

Password is case sensitive

OOAE DIVISION WELCOME

WELCOME FROM THE OOAE DIVISION CHAIR

The OMAE Conference, annually organized by the OOAE Division of the American Society of Mechanical Engineers, uninterrupted reissued over more than four decades, has undoubtedly consolidated itself as the main international forum for Ocean, Offshore and Arctic Engineering. Bringing together participants from academia, industry and research institutions, the OMAE thematic has been continuously updated, year after year, unveiling substantial and essential developments in the field and recently pointing out to emerging topics associated with the sustainable use of the Ocean's resources and the so needed generation of renewable energy.

On behalf of the OOAE Division, serving this year as its Executive Committee Chair, I have the privilege of inviting you to participate in the 44th edition of our conference, the OMAE2025, which will take place in Vancouver, Canada, returning to the Americas after visiting three continents, Europe, Oceania and Asia, in the post-pandemic period.

With the tireless and diligent work of the Technical Program Committee, the Local Organizing Committee and the various volunteer members groups, and with the decisive support of ASME's OOAE Division staff, we are delighted to offer authors and attendants an exciting and innovative technical program.

Welcome to the 44th International Conference on Ocean, Offshore and Arctic Engineering - OMAE 2025.

We look forward to seeing you in the beautiful city of Vancouver!

Celso Pesce

OOAE Division Chair
Professor of Mechanical Sciences, University of São Paulo



WELCOME FROM THE TECHNICAL PROGRAM CHAIRS

Welcome to the 44th Ocean, Offshore and Arctic Engineering Conference (OMAE) in Vancouver, Canada, hosted by the OOAE Division of ASME. OMAE provides a platform for academia, industry and other shareholders to present, absorb and discuss scientific papers. Therewith we seek to support developments of ideas and pathways for practical applications for a smart, sustainable, and safe use of oceans.

We seek to encourage you, the valued authors, to address the mitigation of an adaptation to climate change in all its facets and topics. In this regard and in addition to our traditionally and well established symposia we open two new special topics / special symposia:

- Ocean Thermal Energy Conversion
- Smart & Sustainable Maritime Systems

Both are recent and fast developing fields and contribute directly to the global goals of sustainability and environmental protection, while using edge cutting research and technology.

Therewith we seek to acknowledge new developments and topics that shape the future of both the maritime world and OMAE.

We looking forward to seeing you and your exciting contributions at OMAE in Vancouver!



Franz von Bock und Polach

Professor of Ship Structural Design, Hamburg
University of Technology (TUHH)



Ye Li, Ph.D

Fellow SNAME, Fellow ASME, Fellow RINA
Professor of Ocean Technology and Ocean Renewable
Department of Ocean Science and Engineering
Southern University of Science and Technology

Opening Ceremony

ASME Welcome - Timothy Graves

OOAE Division Welcome - Celso Pesce

Conference Chair Introduction

First Nations Welcome and Blessing

Welcome from the Premier - David Eby

Conference Highlights

Keynote - Jim Carr

Keynote - Robert Allan

Coffee Break (30 minutes at 10:00am)

Awards Presentation Awardees are to sit in the first 3 rows to the far right by stage.

OMAE 2026 Preview - Tokyo Japan

AI and Marine Sustainability: Opportunities, Challenges and Current Trends

AFTERNOON LECTURE SERIES

MONDAY

1715 - 1815
BALLROOM A/B

The High-fidelity Simulation of Multi-physics Marine Turbulent Flows



Krishnan Mahesh

Richard B Couch Professor of Naval Architecture and Marine Engineering
University of Michigan

TUESDAY

1700 - 1800
BALLROOM B

Analytical Guidance and Potential Pathways Relevant to Maritime-Energy Issues



Ronald W. Yeung, Ph.D.

American Bureau of Shipping
Endowed Chair in Ocean Engineering, Distinguished Emeritus

WEDNESDAY

1700 - 1800
BALLROOM B

Next Generation System and Environmental Monitoring: Engineered Performance from the Intersection of Biology, Computation, and Autonomy



Prof. Kristi Morgansen

Boeing-Egtdedt Endowed Chair for Excellence in Engineering
University of Washington

THURSDAY

1530 - 1700
EAST MR 8

Acoustic Ecology of Marine Mammals in the Era of Blue Economy: Managing Ocean Noise



Prof. Christine Erbe

John Curtin Distinguished Professor
Curtin University

AI AND MARINE SUSTAINABILITY: OPPORTUNITIES, CHALLENGES AND CURRENT TRENDS

MODERATOR



Dr. Adrien Desjardins
Moderator

Seaspan Chair in Robotics for
Marine Vessels at the University
of British Columbia

PANELIST



Eric VanDerHorn

Manager, Digital Research team
American Bureau of Shipping (ABS)
ABS Wavesight

PANELIST



Rajeev K. Jaiman

Professor
UBC Mechanical Engineering
NSERC/Seaspan Research Chair

PANELIST



Jennifer Busler

Senior Manager of Innovation at
Seaspan Shipyards

ARCTIC PANEL

TIME: 15:30 – 17:00
LOCATION: VCC - EAST | EAST BALLROOM A

SUSTAINABLE ARCTIC ENGINEERING: CHALLENGES AND OPPORTUNITIES

MODERATOR



Sören Ehlers

Prof. DSc. (Tech.)

Professor, Hamburg University
of Technology and Director, DLR
Institute of Maritime Energy
Systems

PANELIST



Franz von Bock und Polach

Professor of Ship Structural Design,
Hamburg University of Technology (TUHH)

PANELIST



Jessica Fetterman

Chief Engineer, Seaspan Shipyards

PANELIST



Dan McGreer

Adjunct Professor, Naval Architecture
and Marine Engineering, UBC



Shoubhik Sinha

Technology Director, Elomatic Marine &
Offshore



Nils Reimer

Project Manager, Ice and
Ocean Engineering, HSVA
(Hamburg Ship Model Basin)



Samuli Hänninen

Technology Manager, ABB Marine & Ports

Social Events

Welcome Reception

Sunday, June 22 | 17:00 - 19:00

Pan Pacific Hotel Lobby

From the Ground Floor of VCC-East take escalators up.

All attendees must wear their conference badge at all times. Please stop at registration to pick up your conference badge!

Robotics Networking Luncheon

Wednesday, June 25 | 12:30 - 13:30 | VCC - East | Ballroom C

Join us for a dynamic gathering designed to bring together researchers, industry professionals, and students in the field of robotics. The Robotics Networking Luncheon offers a unique opportunity to connect over lunch with like-minded attendees, share insights, and spark new collaborations across disciplines and sectors. Please note: Attendees are encouraged to stop by Exhibition Hall A to pickup their lunch prior the event start.

Conference Wide Reception

Wednesday, June 25 | 19:00 - 22:30

Vancouver Aquarium

845 Avison Way, Vancouver, BC
V6G 3E2



Scan

TRANSIT WILL NOT BE PROVIDED FOR THIS EVENT

10 minutes via car/uber/taxi
12 minutes via bike

24 minutes via public transit
38 minutes Walk by waterfront

Take the #19 bus to Stanley Park, which runs along West Pender Street. A limited number of buses will transport those who need travel assistance. Priority will be given to those in need. Please inquire at the registration desk.

Farewell Reception

Thursday, June 26 | 17:00 - 18:00 | VCC - East | Ballroom C

Come join us as we bid farewell to Vancouver and hello to Tokyo, the host of our OMAE 2026 Conference! Abstract Acceptance opens 1 week following OMAE 2025!

Tours (\$)

Cost: \$65 USD

Length of time: 3.5 - 4 hours

Monday | June 23 | 0800 - 1300 Vancouver City Highlights Tour

Via bus, but does include walking. Wear comfortable shoes.
Limited Seating: Reserve your seats early.

Experience the unique history and unfolding beauty as you drive through the modern streets of Vancouver. You'll see renowned sights through Gastown, Chinatown, Granville Island, and Stanley Park. We can't wait for you to soak up the sights, and find local treasures that will leave you wanting more.

Attendees will meet Monday morning at Registration and check-in with a volunteer with a Yellow shirt on. Attendees will walk from there approximately 2 minutes to meet the tour bus.

Visit: Stanley Park Totem Poles, and Granville Island.

While on your Vancouver bus tour, see these iconic sights and neighbourhoods along the way including:
Chinatown - Vancouver's cultural diversity in Canada's largest Chinatown.
Gastown - Historic original downtown core where Vancouver began.
Canada Place - Architecturally stunning cruise terminal and convention centre.
English Bay - Downtown Vancouver's beautiful beachfront community featuring sandy beaches and palm trees.



THANK YOU TO OUR SPONSORS AND EXHIBITORS

Bronze Sponsor



Conference App Sponsor



J.O.M.A.E.

Journal of Offshore Mechanics and Arctic Engineering

EXHIBITORS



CanadianPond



**OMA 2026
TOKYO**



ROBERT ALLAN
Naval Architects & Marine Engineers

VENUE | FLOOR PLANS

Venue:

Vancouver Convention Centre - East
999 Canada Pl, Vancouver, BC V6C 3T4

VCC-East | Convention Level (Floor 1)



VCC-East | Meeting Level (Floor 2)



The Call for Abstracts for OMAE 2026 opens on July 7, 2025. Make sure you submit your abstract before October 13, 2025, for a chance to showcase your research on a global stage.

OMAE 2026

45th International Ocean Offshore and Arctic Engineering Conference

Grand Nikko Tokyo Daiba | Grand Tokyo, Japan

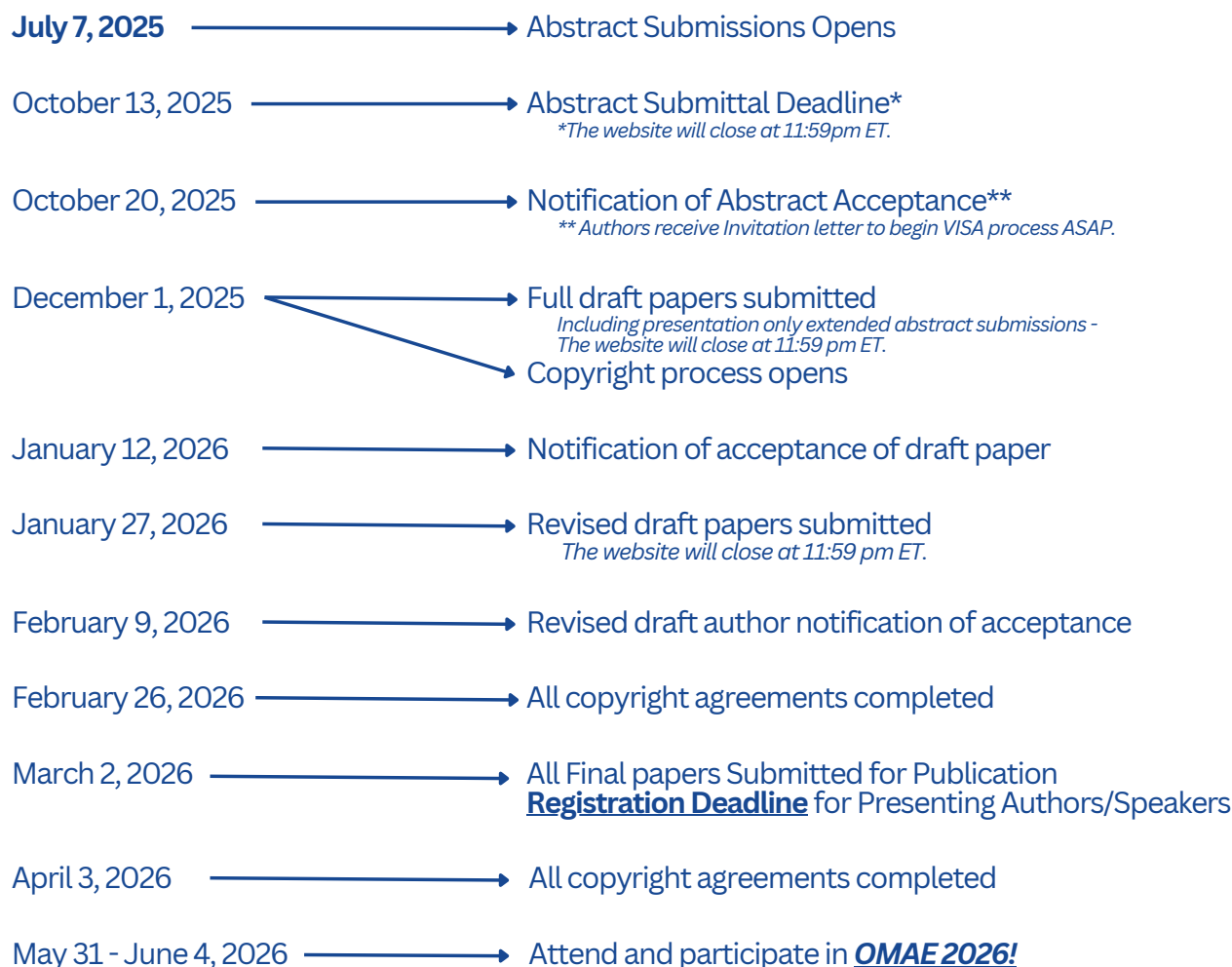
June 7 - 12, 2026

We will be accepting abstracts on the following topics:

- Offshore Technology
- Structures, Safety and Reliability
- Materials Technology
- Subsea Technology
- Ocean Space Utilization
- Ocean Engineering
- Polar and Arctic Sciences and Technology
- CFD, FSI and AI
- Ocean Renewable Energy
- Offshore Geotechnics
- Petroleum Technology
- Blue Economy

International authors: Due to long visa wait times, early abstract submissions are recommended to help expedite your letter of invitation upon paper acceptance.

2026 Publication Schedule



MONDAY, 6/23/2025

6/23/2025

1:30 PM to 3:00 PM - East Meeting Room 18

Chair: **Owen Oakley - Retired**

Chair: **Celso Pesce - USP**

Presentations:

Hydroelastic Dynamics and Vibration Characteristics of Partially-Submerged Hull Panels, {157104}, 1:30 PM - 1:52 PM
Technical Paper Publication

Ishan Neogi - University of British Columbia

Vaibhav Joshi - Birla Institute of Technology and Science Pilani, K K Birla Goa Campus, Goa, India

Rajeev Jaiman - University of British Columbia

Jasmin Jelovica - University of British Columbia

Properties and Capabilities of a Physical and Numerical Wave Tank, {156468}, 1:52 PM - 2:14 PM
Technical Paper Publication

Jesper van der Meij - Norwegian University of Science and Technology

Simon Empeyrou Arruhat - Norwegian University of Science and Technology

Henry Piehl - Norwegian University of Science in Technology

Vertical Distribution of Weakly Neutrally Buoyant Floating Macro- and Megaplastic Marine Litter Using Direct Forcing / Immersed Boundary Method and Large Eddy Simulation, {157246}, 2:14 PM - 2:36 PM
Technical Paper Publication

Andriarimina Rakotonirina - The Ocean Cleanup

Bruno Sainte-Rose - The Ocean Cleanup

Hans Bihs - Norwegian University of Science and Technology

A New Approach for Wave-Structure Interaction Modeling Using the Shock Absorbing Non-Hydrostatic Solver REEF3D::NHFLOW, {157485}, 2:36 PM - 2:58 PM
Technical Paper Publication

Hans Bihs - NTNU

Ahmet Soydan - NTNU

Fabian Knoblauch - NTNU

Widar Weizhi Wang - NTNU

6/23/2025

1:30 PM to 3:00 PM - East Meeting Room 19

Chair: **Ergun kuru - Univ Of Alberta**

Chair: **Eric Cayeux - NORCE**

Presentations:

Simulator Based Testing and Validation of a Drilling Optimization System, {157253}, 1:30 PM - 1:52 PM
Technical Paper Publication

Benoit Daireaux - NORCE

Maria Dahle Johansen - Sekal AS

Deepak Singh - Sekal AS

Helmer André Friis - Sekal AS

Enhancing Early Mud Loss Detection in Drilling Operations in Real Time: A Digital Twin Approach Using ASM Data Along Wired Drill Pipe, {157307}, 1:52 PM - 2:14 PM
Technical Presentation Only

Behzad Elahifar - Norwegian University of Science and Technology

Sigbjørn Sangesland - Norwegian University of Science and Technology

Real-Time Well Engineering: A Powerful Enabler of Drilling Systems Automation Behind the Scenes, {157425}, 2:14 PM - 2:36 PM
Technical Paper Publication

Pedro Arevalo - Baker Hughes

Roland May - Baker Hughes

Roger Aragall - Baker Hughes
Alexander Starostin - Baker Hughes
Thomas Dahl - Baker Hughes
John Macpherson - Baker Hughes

6/23/2025

1:30 PM to 3:00 PM - East Meeting Room 6

Chair: **Sören Ehlers** -

Presentations:

Theoretical Analysis of Nonlinear Flexural-Gravity Waves Interacting With Shear Currents in Polar Seas, {157728}, 1:30 PM - 1:52 PM
Technical Paper Publication

Hung Yu Huang - National Sun Yat-sen University
Hung Chu Hsu - National Sun Yat-sen University

Comparative Analysis of Ice Datasets to Inform Decision Support Models for Winter Navigation, {156595}, 1:52 PM - 2:14 PM
Technical Paper Publication

Victor Garcia - Universitat Politècnica de Catalunya
Cong Liu - Aalto University
Marek Muchow - Aalto University
Mashrura Musharraf - Aalto University

Propeller Ice Interaction – Theory and Practise, {153256}, 2:14 PM - 2:36 PM
Technical Paper Publication

Samuli Hanninen - ABB OY
Pentti Kujala - Taltech
Torsten Heideman - ABB OY
Tuomas Sipilä - ABB OY
Pirjo Määttä - ABB OY

Resilient Energy Systems for Arctic Offshore Wind: A Case Study for Icebreaking Offshore Wind Vessel, {155966}, 2:36 PM - 2:58 PM
Technical Paper Publication

Samuli Hanninen - ABB
Ahmad Arslan - ABB OY
Tomas Tengner - ABB AB
Torsten Heideman - ABB OY

6/23/2025

1:30 PM to 3:00 PM - East Meeting Room 15

Chair: **Krish Thiagarajan Sharman** -

Chair: **Masoud Hayatdavoodi** -

Chair: **Xiaofan Li** -

Presentations:

Inflate, Deflate, Generate Part I: Capturing Wave Energy Through a Submerged Deformable Volume, {156178}, 1:30 PM - 1:52 PM
Technical Paper Publication

Matthew Gschwend - Oregon State University
Nicholas Cruz - Oregon State University
Solomon Yim - Oregon State University
Joseph Piacenza - Oregon State University

Hydrodynamic Analysis of a Multibody Wave Energy Converter System With a Vertical Wall, {157303}, 1:52 PM - 2:14 PM
Technical Paper Publication

Gangqiang Li - Ecole Central de Nantes
Peter Stansby - University of Manchester

High-Fidelity Modelling of a Simplified Hinged-Raft WEC: A CFD Approach, {157670}, 2:14 PM - 2:36 PM
Technical Paper Publication

Nian Liu - University of Edinburgh, Mocean Energy
Gabriel Scarlett - Mocean Energy Ltd
Josh Davidson - Basque Center for Applied Mathematics
Christian Windt - Technical University of Braunschweig
David Forehand - The University of Edinburgh
Gavin Tabor - University of Exeter
Laibing Jia - University of Strathclyde

6/23/2025

1:30 PM to 3:00 PM - East Meeting Room 8

Chair: **Solomon Yim** -

Presentations:

A Method for Ship Piping Design Using Past Data and Expert Knowledge, {156403}, 1:30 PM - 1:52 PM

Technical Presentation Only

Min-Chul Kong - Seoul National University
Myung-Il Roh - Seoul National University
In-Su Han - Seoul National University
Seong-Won Choi - Seoul National University
Mijin Kim - HD Korea Shipbuilding & Offshore Engineering Co., Ltd.
Jeoungyoun Kim - HD Korea Shipbuilding & Offshore Engineering Co., Ltd.
Inseok Lee - HD Korea Shipbuilding & Offshore Engineering Co., Ltd.

Design and CFD Analysis of a Modular and Portable Unmanned Surface Vehicle for Rapid Environmental Response, {156176}, 1:52 PM - 2:14 PM

Technical Paper Publication

Rikki Ramos - Texas A&M University-Kingsville
Hua Li - Texas A&M University - Kingsville
Edgar Villanueva - Texas A&M University - Kingsville
Bailey Kolb - Texas A&M University - Kingsville
Joaquin Haces-Garcia - Texas A&M University - Kingsville
Nicole Escamilla - Texas A&M University - Kingsville
Monica Perez - Texas A&M University - Kingsville
Oscar Garcia - Water Mapping, LLC

Numerical Study on the Deep-Sea Implosion Under the Action of Porous Structures Based on Compressible Multiphase Flow Theory, {157269}, 2:14 PM - 2:36 PM

Technical Paper Publication

Shengxia Sun - Shanghai Jiao Tong University
Min Zhao - Shanghai Jiao Tong University
Xinyu Zhang - Shanghai Jiao Tong University
Tong Li - Shanghai Jiao Tong University

Reinforcement Learning-Based Controller With NMPC-Assisted Training for Autonomous Surface Vessels, {157355}, 2:36 PM - 2:58 PM

Technical Paper Publication

Charuka Amarappulige - Memorial University of Newfoundland
Syed Imtiaz - Memorial University of Newfoundland
Salim Ahmed - Memorial University of Newfoundland
Shameem Islam - Canada National Research Council
Hasanat Zaman - Canada National Research Council

6/23/2025

1:30 PM to 3:00 PM - East Meeting Room 5

Chair: **Marco Klein** - German Aerospace Center - Institute of Maritime Energy Systems

Presentations:

Predicting Route-Specific Energy Demand Under Realistic Environmental Behaviour, {155994}, 1:30 PM - 1:52 PM

Technical Paper Publication

Christian Emmersberger - Hamburg University of Technology

Tom Philipson - Hamburg University of Technology
Stefan Krüger - Hamburg University of Technology

A VPP Derivative Optimisation Method for Wind-Assisted Cargo Ships Based on RANSE-CFD, {156594}, 1:52 PM - 2:14 PM

Technical Paper Publication

Lars Schmitz - German Aerospace Center (DLR) - Institute of Maritime Energy Systems
Mark Leslie-Miller - Dykstra Naval Architects
Annika Fitz - German Aerospace Center (DLR) - Institute of Maritime Energy Systems
Sören Ehlers - German Aerospace Center (DLR) - Institute of Maritime Energy Systems
Marco Klein - German Aerospace Center (DLR) - Institute of Maritime Energy Systems

Case Study Based Investigation on Impact of Added Wave Resistance Models on Vessel Power Consumption and Routing, {156760}, 2:14 PM - 2:36 PM

Technical Paper Publication

Tobias Lampe - Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR) / German Aerospace Center
Thorben Schwedt - Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR) / German Aerospace Center
Dheeraj Gosala - Gosala, Dheeraj Bharadwaj <dheeraj.gosala@dlr.de>
Cedric Fallet - Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR) / German Aerospace Center
Sören Ehlers - Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR) / German Aerospace Center
Marco Klein - Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR) / German Aerospace Center

Comparative Study of Empirical, Physical and AI Models for Predicting Ship Fuel Consumption Under Real Hydrometeorological Conditions, {157192}, 2:36 PM - 2:58 PM

Technical Paper Publication

Mingyang Zhang - Aalto University
Nikolaos Tsoulakos - Laskaridis Shipping Co. Ltd.
Teemu Manderbacka - Aalto Universe
Heikki Remes - Aalto University

6/23/2025

1:30 PM to 3:00 PM - East Meeting Room 9

Chair: **Solomon Yim** -

Presentations:

A Data-Driven Approach to Offshore Wind Forecasting in the Celtic Sea, {154981}, 1:30 PM - 1:52 PM

Technical Paper Publication

Ajit Pillai - University of Exeter
Peter Jenkin - University of Exeter
Ian Ashton - University of Exeter
Edward Steele - UK Met Office
Marcus Juniper - UK Met Office
Jiaxin Chen - University of Plymouth

Auto-Docking for Leisure Boats Using Deep Reinforcement Learning With Action Masking, {156146}, 1:52 PM - 2:14 PM

Technical Paper Publication

Ji Young Seo - Seoul National University
Hujae Choi - Avikus Co., Ltd.
Bo Woo Nam - Seoul National University

Towards a Systematic Safety Evaluation Framework for Mass in Congested Waters, {156343}, 2:14 PM - 2:36 PM

Technical Paper Publication

Xi Chen - Technology Centre for Offshore and Marine, Singapore (TCOMS)
Ching Eng Tan - Technology Centre for Offshore and Marine, Singapore (TCOMS)

Optimization of Path Following for Autonomous Surface Vehicles Using Reinforcement and Imitation Learning, {156420}, 2:36 PM - 2:58 PM

Technical Paper Publication

Anurag Akula - Indian Institute of Technology Madras
Suresh Rajendran - Indian Institute of Technology Madras

6/23/2025

1:30 PM to 3:00 PM - East Meeting Room 14

Chair: **Amy Robertson** -

Chair: **Krish Thiagarajan Sharman** -

Presentations:

Sensitivity of Floating Wind Turbine Motions to Stable Boundary Layer Wind Profiles, {152892}, 1:30 PM - 1:52 PM

Technical Paper Publication

Lennart Vogt - University of Stavanger (UiS)

Jasna Bogunović Jakobsen - University of Stavanger (UiS)

Jacobus Bernardus De Vaal - SINTEF Ocean AS

The Influence of Aerodynamic Load Extraction on System Response in Real-Time Hybrid Test for Floating Wind Turbine: An Experimental Study, {157015}, 1:52 PM - 2:14 PM

Technical Paper Publication

Zhihao Jiang - State Key Laboratory of Ocean Engineering

Binrong Wen - State Key Laboratory of Ocean Engineering

Yuning Gao - State Key Laboratory of Ocean Engineering

Xinliang Tian - Shanghai Jiao Tong University

Gang Chen - State Key Laboratory

Wei Zhang - CPI Power Engineering Xinjiang Energy & Chemical Group, Bozhou Co., Ltd

Experimental Emulation of Shutdown and Start-Up Procedures in Wave Basin Tests of a 15MW Floating Offshore Wind Turbine, {157429}, 2:14 PM - 2:36 PM

Technical Paper Publication

Pedro C. de Mello - Universidade de São Paulo - Escola Politécnica - Dpto de Eng Naval.

Jordi Mas-Soler - Universidade de São Paulo - Escola Politécnica - Dpto de Eng Naval.

Renato M. Monaro - Universidade de São Paulo - Escola Politécnica - Dpto de Eng de Energia e Automação Elétrica

Alexandre N. Simos - Universidade de São Paulo - Escola Politécnica - Dpto de Eng Naval.

Daniel Fonseca De Carvalho E Silva - Petroleo Brasileiro SA - Petrobras

Impact of Wind Farm Flow Control on Turbine Component Lifespan for Floating Offshore Wind Turbines, {156339}, 2:36 PM - 2:58 PM

Technical Presentation Only

jakob gebel - NTNU

Dirk Willem Van Binsbergen - Vrije Universiteit Brussel

Rebeca Marini - Vrije Universiteit Brussel

Amir Nejad - NTNU

Jan Helsen - Vrije Universiteit Brussel

6/23/2025

1:30 PM to 3:00 PM - East Meeting Room 12

Chair: **Anil Sablok - Technip Energies**

Chair: **R. Cengiz Ertekin - Univ. of Hawaii**

Presentations:

Case Study: Munin Unmanned Platform Walk-to-Work Landing Elevation Design Considerations, {152686}, 1:30 PM - 1:52 PM

Technical Paper Publication

Mohammad Hajiarab - Aker BP ASA

Martin Gutsch - Sintef AS

Halgeir Ludvigsen - Sintef AS

Jakob Ravnås - Aker BP ASA

Low-Draft, Low-Motion, and Cost-Effective SCR-Compatible Semi-Submersible Hull for the Central GOM, {156912}, 1:52 PM - 2:14 PM

Technical Paper Publication

Jun Zou - Floating and Green Energy Consulting, LLC

Sensitivity Analyses of Dominant Design Variables for Semi-Submersible Type Substructure of a 15MW Floating Offshore Wind Turbine, {156931}, 2:14 PM - 2:36 PM

Technical Paper Publication

Soobin Lee - INHA University, Ship and Offshore Structure Engineering Lab

Numerical Simulation of Rocket Launching From Floating Platform at Sea, {157071}, 2:36 PM - 2:58 PM

Technical Paper Publication

Sreelakshmi K Nair - IIT Madras

S Nallayarasu - IIT Madras

Effects of Turning Maneuvers on the Towing of Floating Offshore Wind Turbines, {157182}, 2:58 PM - 3:20 PM

Technical Presentation Only

Kuei Tien Lin - National Cheng Kung University

Ray-Yeng Yang - National Cheng Kung University

6/23/2025

1:30 PM to 3:00 PM - East Meeting Room 16

Chair: **Tomoki Ikoma - Nihon University**

Chair: **Motohiko Murai - Yokohama National University**

Presentations:

Experimental Research on Nonlinear Deflection Wave of the Floating Plate, {157161}, 1:30 PM - 1:52 PM

Technical Paper Publication

Chong Ma - National Maritime Research Institute

Kazuhiro Iijima - Graduate School of Engineering, Osaka University

Ananda Raiz Pambela - Graduate School of Engineering, Osaka University

Takahiro Ando - National Maritime Research Institute

Masayoshi Oka - National Maritime Research Institute

Exploring Pilot Digital Twin Solutions for a Floating City in the San Francisco Bay Area, {155271}, 1:52 PM - 2:14 PM

Technical Paper Publication

Wen-Huai Tsao - COWI North America

Christopher E. Kees - Louisiana State University

Brian Lindawson - COWI North America

Investigating the Ecological Impacts of Marine Debris on Fish Habitats Using High-Resolution Acoustic Cameras and AI-Driven Analysis, {155118}, 2:14 PM - 2:36 PM

Technical Paper Publication

Xiaoteng Zhou - The University of Tokyo

Yuanbo Wang - The University of Tokyo

Yutian Ding - The University of Tokyo

Jialu Wang - The University of Tokyo

Katsunori Mizuno - The University of Tokyo

Shigeru Tabeta - The University of Tokyo

Hydrodynamics and Scour Simulation on an Artificial Reef Applied in Offshore Wind Farm, {155380}, 2:36 PM - 2:58 PM

Technical Paper Publication

Jialu Wang - The University of Tokyo

Shigeru Tabeta - The University of Tokyo

Yutian Ding - The University of Tokyo

Xiaoteng Zhou - The University of Tokyo

Shinichiro Hirabayashi - The University of Tokyo

6/23/2025

1:30 PM to 3:00 PM - East Meeting Room 17

Chair: **Solomon Yim -**

Presentations:

Route Splitting and Seasonal Effects on the Lashing of Containerships, {156668}, 1:30 PM - 1:52 PM

Technical Presentation Only

Peter Kim - American Bureau of Shipping

Research on Aeroelastic Response of 15mw Wind Turbine Based on Stiffness Sensitivity Analysis, {157074}, 1:52 PM - 2:14 PM
Technical Presentation Only

qian hang - South University of Science and Technology of China
Li Ye - South University of Science and Technology of China
Gao Teng - South University of Science and Technology of China

Research on Simulation Model of Ship Personnel Flow Based on Topological Characterization of General Arrangement, {156878}, 2:14 PM - 2:36 PM

Technical Paper Publication

Tianli Xiao - Wuhan University of Technology
Hao Wang - Hanjiang National Laboratory
Shunhuai Chen - Wuhan University of Technology

Prediction of Extreme Vessel Responses Utilizing Artificial Intelligence, {156974}, 2:36 PM - 2:58 PM

Technical Paper Publication

Christopher Krause - Institute of Ship Design and Ship Safety
Stefan Krüger - Institute of Ship Design and Ship Safety

6/23/2025

1:30 PM to 3:00 PM - East Meeting Room 13

Presentations:

A Bayesian Approach to Significant Wave Height Modeling Using Measurement Data, {154473}, 1:30 PM - 1:52 PM

Technical Paper Publication

Qingqing Miao - National University of Singapore
Ying Min Low - National University of Singapore

Goodness-Of-Fit of Crest Height Distributions in Varying Sea States, {155516}, 1:52 PM - 2:14 PM

Technical Paper Publication

Erik Vanem - DNV
Odin Gramstad - DNV
Alexander Babanin - University of Melbourne
Riccardo De Bin - University of Oslo
Karsten Trulsen - University of Oslo

Modelling and Predicting Tropical Cyclone Intensity: Wave-Coupled Impacts on Both Sides of the Ocean Interface, {155881}, 2:14 PM - 2:36 PM

Technical Presentation Only

Alexander V. Babanin - The University of Melbourne
Xingkun Xu - The University of Melbourne

Long-Term Response Estimation of a Floating Offshore Wind Turbine With IFORM-Based Models, {156447}, 2:36 PM - 2:58 PM

Technical Paper Publication

Guanhua Zhao - Ocean University of China
Sheng Dong - Ocean University of China

6/23/2025

1:30 PM to 3:00 PM - East Meeting Room 10

Presentations:

Numerical Modelling of the Deeply Embedded Ring Anchor Under Combined Loading, {157367}, 1:30 PM - 1:52 PM

Technical Paper Publication

Ragini Gogoi - Triton Anchor
Anas Aldawwas - Qassim University
Charles Aubeny - Texas A&M University
Alejandro Martinez - University of California Davis

Don Degroot - University of Massachusetts Amherst
Sanjay Arwade - University of Massachusetts Amherst
Ryan Beemer - Virginia Tech

Post-Installation Consolidation of Helical Anchors in Clay, {156927}, 1:52 PM - 2:14 PM

Technical Paper Publication

Zeliang Li - The University of Melbourne
Yinghui Tian - University of Melbourne
Shubhrajit Maitra - The University of Melbourne
Mark Cassidy - The University of Melbourne
Christophe Gaudin - The University of Western Australia

Optimized Suction Anchor Design for 15-MW FOWTs in Deep Water, {157008}, 2:14 PM - 2:36 PM

Technical Paper Publication

Junho Lee - Deep Anchor Solutions Inc.
Song Qin - Texas A&M University
Charles Aubeny - Texas A&M University
Vishnu R. N. Rajasree - NTNU
Ericka Lozon - NREL
Matthew Hall - NREL
Michel Castagne - IFP Energies nouvelles
Alice Nassor - IFP Energies nouvelles

Numerical Investigation of a Novel Caisson-Plate Gravity Anchor Under Combined V-H-M Loading in Clay, {156796}, 2:36 PM - 2:58 PM

Technical Paper Publication

Hang Xu - Zhejiang University
Shengjie Rui - Norwegian Geotechnical Institute
Zhen Guo - Zhejiang University
Yue Zhao - Zhejiang University
Kanmin Shen - PowerChina Huadong Engineering Corporation Limited
Lizhong Wang - Zhejiang University

6/23/2025

1:30 PM to 3:00 PM - East Meeting Room 7

Presentations:

Enhancing Subsea Well Integrity Through Standardized Comparison of Analysis and Measurement Results, {157134}, 1:30 PM - 1:52 PM

Technical Paper Publication

Thomas Arnulf - 4Subsea AS
Harald Holden - 4Subsea
Hilde Vindenes - 4Subsea
Håkon Molven - 4Subsea
Wojciech Czuba - 4Subsea AS

Subsea Integrity Management: How to Be Proactive on Systems With Limited Feedback, {153207}, 1:52 PM - 2:14 PM

Technical Paper Publication

Audun S Kristoffersen - Harbour Energy

Decommissioning of Subsea Equipment – A Technical Approach Through the Multicriteria Analysis Methodology, {155412}, 2:14 PM - 2:36 PM

Technical Paper Publication

Fernanda Rodrigues Lago - Federal University of Rio de Janeiro (UFRJ)
Marco Diogo Montenegro Cordon - Federal University of Rio de Janeiro (UFRJ)
Gabriel Wellington De Almeida - Federal University of Rio de Janeiro (UFRJ)
Ilsan Paranhos Pasqualino - Federal University of Rio de Janeiro (UFRJ)
Marcelo Igor Lourenço De Souza - Federal University of Rio de Janeiro (UFRJ)
Eduardo Ribeiro Nicolosi - PETROBRAS - Petróleo Brasileiro S.A
Claudio Violante Ferreira - PETROBRAS - Petróleo Brasileiro S.A

6/23/2025

3:30 PM to 5:00 PM - East Meeting Room 19

Chair: **ergun kuru - Univ Of Alberta**

Presentations:

Advancing Sustainable Offshore Circular Economy in the Middle East: Pathways to Net-Zero and Role of Advanced Digital Technologies, {157553}, 3:30 PM - 3:52 PM

Technical Paper Publication

Chuangchuang Qi - Khalifa University
Abhijith Suboyin - Abu Dhabi National Oil Company L&S
Omar Baobaid - ADNOC L&S
Md Motiur Rahman - Khalifa University of Science and Technology
Jens Thomsen - Renewable ApS Denmark
Suhail Diaz - Wood PLC
Felipe Villasuso - London South Bank University

Towards More Accurate Prediction of Transport Properties of Hydrogen Over Wide Pressure/Temperature Conditions Using Entropy Scaling Theory and Volume-Translated Cubic Equations of State, {157556}, 3:52 PM - 4:14 PM

Technical Paper Publication

Changxu Wu - University of Alberta
Huazhou Li - University of Alberta

How to Accelerate Low Emission Technology Solutions for Uptake in the Oil and Gas Industry, {157785}, 4:14 PM - 4:36 PM

Technical Paper Publication

Stefania Gardarsdottir - SINTEF Energy
Ane Elisabet Lothe - SINTEF Industry
Per Bergmo - SINTEF Industry
Helene Berntsen Auflem - SINTEF Energy
Annika Torsvik - SINTEF Industry

Sustainable Management of Produced Water in Venezuela's Major Hydrocarbon Basins (Eastern Venezuela and Maracaibo Basins): Exploring Opportunities for Hydrogen Generation, Geothermal Energy and Mineral Extraction, {157812}, 4:36 PM - 4:38 PM

Technical Paper Publication

Fernancelys Rodriguez - Consultant
Fausto Posso Rivera - Universidad de Santander
Raifel Morales - PDVSA Petro San Felix
Hadi Belhaj - Khalifa University of Science and Technology
Iván Olaya López - Universidad de Santander
Ahmed Belhaj - University of Calgary

Innovative and Eco-Friendly Ice Air Jet for Surface Treatment in the Petroleum Industry: A Numerical and Experimental Study on Jet Performance and Sustainability, {157024}, 4:38 PM - 5:00 PM

Technical Paper Publication

Jingru Hu - China University of Petroleum-Beijing
Zhongwei Huang - China University of Petroleum, Beijing
Kang Cheng - China University of Petroleum, Beijing
Dong Yang - China University of Petroleum, Beijing
Jingbin Li - China University of Petroleum, Beijing
Hou Zhong - China University of Petroleum, Beijing
Shihao Zhang - China University of Petroleum, Beijing
Huan Li - China University of Petroleum, Beijing

6/23/2025

3:30 PM to 5:00 PM - East Meeting Room 18

Chair: **Owen Oakley - Retired**

Presentations:

The Peak Impact Force of Landslide-Induced Turbidity Current on Pipelines Above the Seabed, {156982}, 3:30 PM - 3:52 PM

Technical Paper Publication

Sana Ramezani - McGill University
Vincent H. Chu - McGill University

Influence of Pipeline Design and Flow Properties on Oil-Water Hydraulics: A Computational Fluid Dynamics Approach, {157321}, 3:52 PM - 4:14 PM

Technical Paper Publication

Zurwa Khan - Texas A&M University

Reza Tafreshi - Texas A&M University

Md Wahid - Texas A&M University at Qatar

Albertus Retnanto - Texas A&M University

Frequency Response and Oscillatory Patterns of Two Tandem Cylinders in Flow-Induced Oscillations: Effect of Large Turbulence Stimulation and Adaptive Damping, {157097}, 4:14 PM - 4:36 PM

Technical Paper Publication

Nipit Congpuong - University of Michigan

Salman Sadiq - University of Michigan

Hai Sun - Harbin Engineering University

Michael Bernitsas - University of Michigan

6/23/2025

3:30 PM to 5:00 PM - East Meeting Room 15

Chair: **Krish Thiagarajan Sharman -**

Chair: **Masoud Hayatdavoodi -**

Chair: **Daniel Gaebe -**

Presentations:

The Study of Power Take-Off System Sizing for Wave Energy Converter Array, {156560}, 3:30 PM - 3:52 PM

Technical Paper Publication

Jian Tan - Delft University of Technology

George Lavidas - Delft University of Technology

SPH Modeling of OWCs With Pneumatic PTO: Investigation on Chamber Models and Turbine Models, {156980}, 3:52 PM - 4:14 PM

Technical Paper Publication

Beatrice Mina - University School for Advanced Studies (IUSS) Pavia

Bonaventura Tagliafierro - Uppsala University

Iván Martínez-Estévez - Universidade de Vigo

Corrado Altomare - Universitat Politècnica de Catalunya - Barcelona Tech

Giovanni Malara - Università degli Studi Mediterranea di Reggio Calabria

Felice Arena - Università degli Studi Mediterranea di Reggio Calabria

Moncho Gómez-Gesteira - Universidade de Vigo

Electrical Power Potential of a Wave Energy Converter Using an Active Mechanical Motion Rectifier Power Take-Off, {157174}, 4:14 PM - 4:36 PM

Technical Paper Publication

Lisheng Yang - Department of Mechanical Engineering, University of Michigan, USA.

Jianuo Huang - University of Michigan

Steven Spencer - Sandia National Laboratories

Giorgio Bacelli - Sandia National Laboratories

Xiaofan Li - University of Michigan

Jia Mi - Stevens Institute of Technology

Muhammad Hajj - Stevens Institute of Technology

Lei Zuo - University of Michigan

ANALYSIS AND DESIGN OF MULTI-RESONANT WAVE ENERGY CONVERTER CONTROL UNDER IRREGULAR WAVE CONDITIONS, {157560}, 4:36 PM - 4:58 PM

Technical Presentation Only

Uzair Tahir - Swinburne University of Technology

Jingxin Zhang - Swinburne University of Technology

Richard Manasseh - Swinburne University of Technology

6/23/2025

3:30 PM to 5:00 PM - East Meeting Room 8

Chair: **Solomon Yim** -

Presentations:

Placing Artificial Reefs Around an Offshore Wind Monopile: Effects on Near-Bed Flow and Scour, {157716}, 3:30 PM - 3:52 PM
Technical Presentation Only

Jing Yuan - Tsinghua University

Experimental Study on the Effectiveness of V-Type Breakwaters Against Infragravity Waves on Reef-Fringed Coasts, {156428}, 3:52 PM - 4:14 PM

Technical Paper Publication

Gancheng Zhu - Institute of Hydraulics and Ocean Engineering, Ningbo University

Sen Gao - Dalian University of Technology

Bing Ren - Institute of Hydraulics and Ocean Engineering, Ningbo University

Pengzhi Lin - Sichuan University

Experimental Investigation of an Offshore Detached Submerged Breakwater Made of Geotextile Tubes for a Barrier Island Along East Coast of India, {157537}, 4:14 PM - 4:36 PM

Technical Paper Publication

Mounika Mallela - Indian Institute of Technology, Madras

Nilanjan Saha - Indian Institute of Technology Madras

Sundaravadivelu R - Indian Institute of Technology Madras

Ramana Murthy M V - National Center for Coastal Research

6/23/2025

3:30 PM to 5:00 PM - East Meeting Room 5

Chair: **Marco Klein** - German Aerospace Center - Institute of Maritime Energy Systems

Presentations:

Predictive Thermal Digital Twin Model for a Renewably Powered Offshore AUV Servicing Platform, {152581}, 3:30 PM - 3:52 PM

Technical Paper Publication

Ayden Soderblom - Massachusetts Institute of Technology

Sung Wook Paek - Massachusetts Institute of Technology

Abhishek Bhattacharjee - Massachusetts Institute of Technology

Olivier L. De Weck - Massachusetts Institute of Technology

Lithium-Ion Battery Degradation Forecasting Using Data-Driven Time Series Models, {156104}, 3:52 PM - 4:14 PM

Technical Paper Publication

Kishan Patel - German Aerospace Center (DLR)

Athira Pulickakudy Salin - Heinrich Heine University Düsseldorf

Merten Stender - Technische Universität Berlin

Moritz Braun - German Aerospace Center (DLR) - Institute of Maritime Energy Systems

Sören Ehlers - German Aerospace Center (DLR) - Institute for Maritime Energy Systems

Testing and Field Demonstration of a Novel Floating Offshore Energy Storage Concept, {155975}, 4:14 PM - 4:36 PM

Technical Paper Publication

Carlo Ruzzo - Università Mediterranea di Reggio Calabria

Lorenzo Gardoni - Sizable Energy srl

Vincenzo Fiamma - Università Mediterranea di Reggio Calabria

Ilmas Bayati - Sizable Energy srl

Manuele Aufiero - Sizable Energy srl

Felice Arena - Università Mediterranea di Reggio Calabria

Towards Goal-Based Design of Tank Ventilation Outlets for Methanol Powered Ships, {156723}, 4:36 PM - 4:58 PM

Technical Paper Publication

Florian Schmid - DLR Institute of Maritime Energy Systems

Johannes Beiker - DLR Institute of Maritime Energy Systems

Simon Prattke - DLR Institute of Maritime Energy Systems

Martin Bergström - DLR Institute of Maritime Energy Systems

Frank Roland - DLR Institute of Maritime Energy Systems

Sören Ehlers - DLR Institute of Maritime Energy Systems

6/23/2025

3:30 PM to 5:00 PM - East Meeting Room 9

Chair: **Solomon Yim** -

Presentations:

Multi-Step Significant Wave Height Forecasting Using an Artificial Intelligence Model Optimized by Dynamic Time Warping, {156458}, 3:30 PM - 3:52 PM

Technical Paper Publication

Junheng Pang - Ocean University of China

Sheng Dong - Ocean University of China

AI-Powered Down-Scale Wave Hydrodynamic Analysis for Coastal Marine Structures, {156465}, 3:52 PM - 4:14 PM

Technical Paper Publication

Widar Weizhi Wang - Norwegian University of Science and Technology

Konstantinos Christakos - Norwegian Meteorological Institute

Hans Bihs - Norwegian University of Science and Technology

A Methodological Approach to Short-Term Coastal Wave Prediction Using Combined Pre-Analysis and Machine Learning, {156549}, 4:14 PM - 4:36 PM

Technical Paper Publication

Sijia Wang - The University of Tokyo

Chang-Kyu Rheem - the University of Tokyo

PRIMRE: Marine Energy Information Organized by Interoperable Data Systems, {157407}, 4:36 PM - 4:58 PM

Technical Paper Publication

Jon Weers - The National Renewable Energy Lab (NREL)

Andrea Copping - Pacific Northwest National Laboratory

Cesar Castillo - Sandia National Laboratories

Jonathan Whiting - Pacific Northwest National Laboratory

Hayley Farr - Pacific Northwest National Laboratory

Kelley Ruehl - Sandia National Laboratories

Applications of LLMs in Offshore Engineering Consulting and Design: Opportunities, Challenges, and Solutions, {158330}, 4:58 PM - 5:00 PM

Technical Paper Publication

Yong He - IKM Ocean Design AS

Stian Laland Rasmussen - IKM Ocean Design AS

Anders Jakobsson - IKM Ocean Design AS

Per Nystrøm - IKM Ocean Design

6/23/2025

3:30 PM to 5:00 PM - East Meeting Room 14

Chair: **Amy Robertson** -

Chair: **Krish Thiagarajan Sharman** -

Presentations:

Pure Aerodynamic Load Extraction Method in dMatch for Floating Offshore Wind Turbine Model Testing, {155983}, 3:30 PM - 3:52 PM

Technical Paper Publication

Yuning Gao - Shanghai Jiao Tong University

Xinliang Tian - Shanghai Jiao Tong University

Binrong Wen - Shanghai Jiao Tong University

Xin Li - Shanghai Jiao Tong University

Yang Gao - Goldwind Sci & Tech Co.,Ltd.

Mindong Yang - China Energy Engineering Group Guangdong Electric Power Design Institute Co. , Ltd.

Calculation of Hydrodynamic Forces on Floating Offshore Wind Turbines Using an Optimized Morison Inertia Coefficient Method, {156028}, 3:52 PM - 4:14 PM

Technical Paper Publication

Yeonbin Lee - Hongik University
Eungsoo Kim - POSCO
Yoon Hyeok Bae - Hongik University

Effects of Yaw Rotation Correction on Hydrodynamic Loads and Dynamic Response of a Floating Wind Turbine, {155264}, 4:14 PM - 4:36 PM

Technical Paper Publication

Ali Bakhshandeh - DNV SERVICES UK LIMITED
Armando Alexandre - DNV Service UK

Low Fidelity Modeling for the Prediction of Long-Term Floating Offshore Wind Turbine Performance, {157366}, 4:36 PM - 4:58 PM

Technical Paper Publication

Jackson Hardin - University of Oxford
Federico Zilic De Arcos - University of Oxford
Thomas Adcock - University of Oxford
Emma Edwards - University of Oxford

6/23/2025

3:30 PM to 5:00 PM - East Meeting Room 12

Chair: **Anil Sablok - Technip Energies**

Chair: **R. Cengiz Ertekin - Univ. of Hawaii**

Presentations:

Impact Load Identification Based on Strain Measurements Using a Hierarchical Bayesian Framework, {157170}, 3:30 PM - 3:52 PM

Technical Paper Publication

Kelu Li - Shanghai Jiao Tong University
Longfei Xiao - Shanghai Jiao Tong University
Handi Wei - Shanghai Jiao Tong University
Yufeng Kou - Shanghai Jiao Tong University

Comparison Study of Shallow Water and Deepwater Dynamic Power Cable Systems for Floating Offshore Substation, {157466}, 3:52 PM - 4:14 PM

Technical Paper Publication

Hyoungchul Kim - Technip Energies
Sejin Kim - Genesis Energies
Thiago Miliente - Technip Energies
Bonjun Koo - Technip Energies
Yuho Rho - LS Cable & System
Chul Min Kim - LS Cable & System
Kwang Su Chae - LS Cable & Service

Using Pink Noise Data to Train Neural Networks for Estimating FPSO Resonant Frequency for Assessing Mooring Line Integrity, {157467}, 4:14 PM - 4:36 PM

Technical Paper Publication

Asdrubal Do Nascimento Queiroz Filho - University of Sao Paulo
Gustavo Augusto Casco Silva Rodrigues Alves - University of Sao Paulo
Felipe Biasuz Cordeiro - University of Sao Paulo
Rodrigo Augusto Barreira - Petrobras
Marcel Rodrigues De Barros - University of Sao Paulo
Eduardo Aoun Tannuri - University of Sao Paulo
Anna Helena Reali Costa - University of Sao Paulo
Edson Satoshi Gomi - University of São Paulo

6/23/2025

3:30 PM to 5:00 PM - East Meeting Room 16

Chair: **Tomoki Ikoma - Nihon University**

Chair: **Daisuke Kitazawa - The University of Tokyo**

Presentations:

Modelling Focused Breaking Wave Interactions With Pile-Net Aquaculture Structures (PNAS) Using REEF3D, {156218}, 3:30 PM - 3:52 PM

Technical Paper Publication

Gang Wang - Yellow Sea Fisheries Research Institute, Chinese Academy of Fishery Sciences
Zhaoqi Jiao - Yellow Sea Fisheries Research Institute, Chinese Academy of Fishery Sciences
Changtao Guan - Yellow Sea Fisheries Research Institute, Chinese Academy of Fishery Sciences
Ahmet Soydan - Norwegian University of Science and Technology
Widar Weizhi Wang - Norwegian University of Science and Technology
Hans Bihs - Norwegian University of Science and Technology

Integrated Nature-Inclusive Design of the Innovative Tri-Suction Pile Caisson Offshore Wind Turbine Foundation, {157381}, 3:52 PM - 4:14 PM

Technical Paper Publication

Antonios Emmanouil - Stichting Deltares
Karin Didderen - Waardenburg Ecology
Mascart Thibaud - DEME Group
Isabel Gerritsma - Stichting Deltares
Alrike Dreissen - Waardenburg Ecology
Luca Van Duren - Stichting Deltares
Erik Ter Horst - DEME Group

Multi-Spatial Measurement Points Based Structural Health Monitoring in the Tendons of an Offshore Aquaculture Farm's Fish Cage, {156607}, 4:14 PM - 4:36 PM

Technical Paper Publication

Christos Sakaris - NORCE - Norwegian Research Centre AS
Xueliang Wen - University in Stavanger
Rune Schlanbusch - NORCE - Norwegian Research Centre AS
Muk Chen Ong - University in Stavanger

Influence of Ocean Currents and Stocking Density on the Dissolved Oxygen Distribution Inside Gravity-Type Fish Cages, {156437}, 4:36 PM - 4:58 PM

Technical Paper Publication

Xueliang Wen - University of Stavanger
Muk Chen Ong - University of Stavanger
Guang Yin - University of Stavanger
Tord Ludvigsen - University of Stavanger
Frode Oppedal - Institute of Marine Research

6/23/2025

3:30 PM to 5:00 PM - East Meeting Room 17

Chair: **Solomon Yim** -

Presentations:

Design, Optimization, and Control of a Hydrofoil System for High-Performance Marine Vessels, {157359}, 3:30 PM - 3:52 PM

Technical Paper Publication

V Bharath Mohan - Indian Institute of Technology Madras
Suresh Rajendran - Indian Institute of Technology Madras

The Design of a Wing via Surrogate-Based Multi-Fidelity Bayesian Optimization, {157413}, 3:52 PM - 4:14 PM

Technical Paper Publication

Oğuz Susam - İstanbul Technical University
Ömer Gören - İstanbul Technical University

Effects of Second-Order Wave Load on Floating Offshore Wind Turbines Under Combined Wind and Wave Actions, {157746}, 4:14 PM - 4:36 PM

Technical Paper Publication

Lin Yang - Southern University of Science and Technology
Xingya Feng - Southern University of Science and Technology
Ye Li - Southern University of Science and Technology

Learning From and Practice on the Teaching Philosophies of Professor Sander Calisal in High Education, {158562}, 4:36 PM - 4:58 PM

Technical Paper Publication
Jianhong Wang - Nanjing University of Information Science & technology

Nonlinear Hydrodynamics of Extreme Waves With Different Generation Mechanisms, {158948}, 4:58 PM - 5:00 PM

Technical Paper Publication
Xingya Feng - Southern University of Science and Technology
Junnan Cui - Hainan University
Qian Wu - The Hong Kong Polytechnic University

6/23/2025

3:30 PM to 5:00 PM - East Meeting Room 13

Presentations:

Dynamic Stability Analysis of Small-Diameter Pipelines Using New Fourier-Type Hydrodynamic Force Coefficients, {155494}, 3:30 PM - 3:52 PM

Technical Paper Publication
Yang He - Offshore Oil Engineering Co., Ltd. Tianjin, P. R. China
Dang Zhao - Offshore Oil Engineering Co., Ltd. Tianjin, P. R. China
Mengyao Guan - South China University of Technology
Bin Lin - South China University of Technology
Bairen Chen - South China University of Technology
Yunfei Teng - Dalian University of Technology
Yan Qu - South China University of Technology
Liang Cheng - South China University of Technology

Slamming and Green Water Loads on a Cruise Ship Subjected to Extreme Seas, {157338}, 3:52 PM - 4:14 PM

Technical Paper Publication
Shan Wang - Centre for Marine Technology and Ocean Engineering (CENTEC), Instituto Superior Técnico
Maria Inês Pinto Rodrigues - Centre for Marine Technology and Ocean Engineering (CENTEC), Instituto Superior Técnico
Suresh Rajendran - Indian Institute of Technology Madras
Carlos Guedes Soares - Centre for Marine Technology and Ocean Engineering (CENTEC), Instituto Superior Técnico

Compressive Strain Capacity Reliability of Hydrogen-Carrying Steel Pipelines in Permafrost, {157472}, 4:14 PM - 4:36 PM

Technical Paper Publication
Smitha Koduru - University of Alberta

Investigation on the Effect of Bimodal Sea States on Mooring Systems' Extreme Response Offshore Brazil, {157052}, 4:36 PM - 4:58 PM

Technical Paper Publication
Marina Leivas Simão - Federal University of Rio de Janeiro
Paulo Mauricio Videiro - Federal University of Rio de Janeiro
Luis Volnei Sudati Sagrilo - Federal University of Rio de Janeiro
Mauro Costa De Oliveira - CENPES/PETROBRAS

6/23/2025

3:30 PM to 5:00 PM - East Meeting Room 6

Presentations:

An Error Compensation Algorithm for Ship Structural Stress in Ice Fields Based on Temperature-Strain Coupling Tests, {156274}, 3:30 PM - 3:52 PM

Technical Paper Publication
Chenxi Xie - Shanghai Jiao Tong University
Angke Li - Shanghai Jiao Tong University
Yizhou Wu - Marine Design & Research Institute of China
Xuyang Huo - Shanghai Jiao Tong University
Hui Sun - Shanghai Zhongchuan Nerc-Std Co., Ltd.
Lijuan Xia - Shanghai Jiao Tong University

Research on Ice-Ship Collision Simulation in Floe Ice Fields Based on In-Situ Data Comparative Analysis, {156703}, 3:52 PM - 4:14 PM

Technical Paper Publication

Xuyang Huo - Shanghai Jiao Tong University
Longhui Xiao - Shanghai Jiao Tong University
Chenxi Xie - Shanghai Jiao Tong University
Angke Li - Shanghai Jiao Tong University
Hui Sun - Shanghai Zhongchuan Nerc-Std Co.,Ltd.
Lijuan Xia - Shanghai Jiao Tong University

A Study on the Hull Form Development and Numerical Analysis-Based Ice Capability Estimation Method for Arctic Container Ship, {156717}, 4:14 PM - 4:36 PM

Technical Paper Publication

Hyoungh Gil Park - Samsung Ship Model Basin, Samsung Heavy Industries Co.,Ltd.
Jinkyu Kim - Samsung Ship Model Basin, Samsung Heavy Industries Co.,Ltd.
Gisu Song - Korea Maritime & Ocean University, Division of Naval Architecture and Ocean Engineering
Hoyong Park - Ice Model Basin, Korea's Leading Ship and Offshore PLant Research Institute(KRISO)
Hee Jung Kim - Sasmsung Ship Model Basin, Samsung Heavy Industries Co.,Ltd.
Yong Chul Lee - Samsung Ship Model Basin, Samsung Heavy Industries Co., Ltd.
Hong Su Kim - Pangyo R&D Center, Samsung Heavy Industries Co., Ltd

A Longitudinal Study of the Open-Water Performance of an Ice-Class Vessel, {157356}, 4:36 PM - 4:58 PM

Technical Presentation Only

Anriette Bekker - Stellenbosch University
Barend Steyn - Stellenbosch University

6/23/2025

3:30 PM to 5:00 PM - East Meeting Room 10

Presentations:

Plasticity Analysis of Plate Anchor Keying Process Considering an Integrated Anchor-Chain System , {155938}, 3:30 PM - 3:52 PM

Technical Paper Publication

Hong Zhu - University of Melbourne
Shubhrajit Maitra - University of Melbourne
Yinghui Tian - University of Melbourne
Mark Cassidy - University of Melbourne

A New Interface Friction Simulation Method for Installation Analysis of Dynamic Installed Anchors, {158940}, 3:52 PM - 4:14 PM

Technical Paper Publication

Chao Tang - Shanghai Jiao Tong University
Xiaoni Wu - Shanghai Jiao Tong University
Jinjian Chen - Shanghai Jiao Tong University
Jian Shu - China Offshore Engineering & Technology Co., Ltd
Teng Wang - China University of Petroleum

Numerical Analysis of Installation Mechanisms for Floating Wind Turbine Helical Anchors in Sand, {156765}, 4:14 PM - 4:36 PM

Technical Paper Publication

Le Wang - Tianjin University
Linrui Zhang - Tianjin University
Libo Chen - University of Kassel
Xin Huang - South China University of Technology
Chunhui Zhang - Hebei University of Science and Technology
Zhichao Shen - South China University of Technology
Oliver Reul - University of Kassel
Yinghui Tian - The University of Melbourne

6/23/2025

3:30 PM to 5:00 PM - East Meeting Room 7

Presentations:

Flow Field Investigation for a Cable-Burying Jet Trenching Tool, {157354}, 3:30 PM - 3:52 PM

Technical Paper Publication

ANASTASIOS KOPANIDIS - Asso.subsea
Angelina Pytharoulou - Asso.subsea
Panagiotis Delizisis - Asso.subsea
Georgios Georgopoulos - Asso.subsea
Stylianios Gatsios - Asso.subsea
Katerina Prousanidou - Asso.subsea
Athanasios Manias - Asso.subsea

Seafloor Terrain Semantic Segmentation for Autonomous Deep-Sea Mining Operations, {155274}, 3:52 PM - 4:14 PM

Technical Paper Publication

Xinran Liu - Shanghai Jiao Tong University
Jianmin Yang - Shanghai Jiao Tong University
Wenhao Xu - Shanghai Jiao Tong University

Underwater Data Harvesting From a Bottom Landing Observatory Using AUVs With Underwater Optical Wireless Communication, {157149}, 4:14 PM - 4:36 PM

Technical Paper Publication

Masahiko Sasano - National Maritime Research Institute
Akihiro Okamoto - National Maritime Research Institute
Shogo Inaba - National Maritime Research Institute
Kanako Kobatake - National Maritime Research Institute
Kangsoo Kim - National Maritime Research Institute
Toshifumi Fujiwara - National Maritime Research Institute
Fumitaka Sugimoto - Japan Agency for Marine-Earth Science and Technology
Hiroshi Matsumoto - Japan Agency for Marine-Earth Science and Technology
Tetsuya Miwa - Japan Agency for Marine-Earth Science and Technology
Hiroyuki Yamamoto - Japan Agency for Marine-Earth Science and Technology

TUESDAY, 6/24/2025

6/24/2025

8:30 AM to 10:00 AM - East Meeting Room 13

Chair: **Jonas Ringsberg** -

Presentations:

FEM-Based Assessment of Steel-Lightweight Concrete-Steel Sandwich Composite Beams for FPSO Applications: Behavior, Failure, and Design, {156187}, 8:30 AM - 8:52 AM

Technical Paper Publication

Igor Fraga - Federal University of Rio de Janeiro (UFRJ)
Mariane Rita - Federal University of Rio de Janeiro (UFRJ)
Ana Beatriz Silva - Federal University of Rio de Janeiro (UFRJ)
Eduardo Fairbairn - Federal University of Rio de Janeiro (UFRJ)
Jose Claudio Telles - Federal University of Rio de Janeiro (UFRJ)
Alexandre Landesmann - Federal University of Rio de Janeiro (UFRJ)
Nicolau Rizzo - PETROBRAS

Numerical Methodology for Local Analysis of Sandwich Panels in FPSO Hull Structures, {156958}, 8:52 AM - 9:14 AM

Technical Paper Publication

Waldy Zuniga - Universidade Federal do Rio de Janeiro / Fundação COPPETEC / LACEO
Paulo Maurício Videiro - Universidade Federal do Rio de Janeiro / LACEO
Newton Bruno De Almeida Costa - Universidade Federal do Rio de Janeiro / LACEO
José Renato Mendes De Sousa - Universidade Federal do Rio de Janeiro / LACEO
Luis Volnei Sudati Sagrilo - Universidade Federal do Rio de Janeiro / LACEO
Nicolau Antonio Dos Santos Rizzo - PETROBRAS / CENPES

Global and Local Response of Submerged Floating Tunnels to Hydrodynamic Loads, {156361}, 9:14 AM - 9:36 AM

Technical Paper Publication

Stefano Corazza - Politecnico di Milano
Francesco Foti - Politecnico di Milano

Luca Martinelli - Politecnico di Milano
Vincent Denoël - University of Liège

A Stress-Corrosion Model to Simulate Degradation Process of Steel Structure in Marine Environment, {157176}, 9:36 AM - 9:58 AM
Technical Paper Publication

Youyuan Xiao - Kunming University of Science and Technology
Zhiliang Wang - Kunming University of Science and Technology
Miao Li - Charles Sturt University
Linfang Shen - Kunming University of Science and Technology

6/24/2025

8:30 AM to 10:00 AM - East Meeting Room 18

Chair: **Ergun kuru - Univ Of Alberta**

Presentations:

On the Sources of Errors in Rheological Measurements of Non-Newtonian Fluids and the Interpretation of Yield-Power Law Rheological Model Parameters, {156358}, 8:30 AM - 8:52 AM
Technical Paper Publication

Eric Cayeux - NORCE

The Yield Stress Concept in Drilling Fluids, {157289}, 8:52 AM - 9:14 AM

Technical Paper Publication

Arild Saasen - University of Stavanger
Jan David Ytrehus - SINTEF
Shatakshi Gupta - University of Illinois
Randy Ewoldt - University of Illinois

Investigating Transitional Flow Regimes in Annular Fluid Flow for Drilling Applications, {156054}, 9:14 AM - 9:36 AM

Technical Paper Publication

Roger Aragall - Baker Hughes Company
Gunther Brenner - Clausthal University of Technology
Roland May - Baker Hughes Company
Thomas Dahl - Baker Hughes Company

Helical Flow of Yield-Viscoplastic Fluids in Concentric Annuli, {157389}, 9:36 AM - 9:58 AM

Technical Paper Publication

Bjørnar Lund - SINTEF
Annika Torsvik - SINTEF
Roar Nybø - SINTEF
Arild Saasen - University of Stavanger

6/24/2025

8:30 AM to 10:00 AM - East Meeting Room 19

Chair: **ergun kuru - Univ Of Alberta**

Presentations:

Experimental Study on Anti-Scaling Effect of Anti-Scaling Agent in Nearwell Zone of Deep-Water Gas Wells, {156669}, 8:30 AM - 8:52 AM
Technical Paper Publication

Xiuan Sui - China university of petroleum(east china)
Zhiyuan Wang - China university of petroleum(east china)
Xiaoao Liu - CNPC Engineering Technology R&D Company Limited, Beijing, China
Yukun Guo - CNOOC China Limited, Zhanjiang Branch
Qingwen Kong - China university of petroleum(east china)
Baojiang Sun - China university of petroleum(east china)

Multi-Objective Optimization of Geothermal Well Clusters in Hydrothermal Systems, {156937}, 8:52 AM - 9:14 AM

Technical Paper Publication

Junlin Yi - College of petroleum Engineering

Shuang Li - College of petroleum Engineering
Gaosheng Wang - College of Carbon Neutral Energy
Qiliang Cui - College of petroleum Engineering
Xianzhi Song - College of petroleum Engineering
Mengmeng Zhou - College of Carbon Neutral Energy
Jialin Zhao - College of petroleum Engineering

Quantitative Characterization of Mineral Properties and Microstructures in Deep Coal-Rock, {157164}, 9:14 AM - 9:36 AM
Technical Paper Publication

Shixiang Fei - China University of Petroleum-(Beijing)
Zhoujun Luo - China University of Petroleum-(Beijing)
Qingjiu Zhang - Yumen Oilfield Company, CNPC
Bofeng Liu - Yumen Oilfield Company, CNPC
Guangfeng Liu - China University of Petroleum-(Beijing)
Leng Tian - China University of Petroleum-(Beijing)
Daoyong (Tony) Yang - University of Regina

Experimental Investigation on the Spontaneous Imbibition Behaviour of Shale Reservoirs, {157166}, 9:36 AM - 9:58 AM
Technical Paper Publication

Dayong Luo - PetroChina Qinghai Oilfield Company
Guangfeng Liu - China University of Petroleum-(Beijing)
Wenting Jia - PetroChina Qinghai Oilfield Company
Nana Zou - China University of Petroleum-(Beijing)
Yangbin Dang - PetroChina Qinghai Oilfield Company
Daoyong (Tony) Yang - University of Regina

6/24/2025

8:30 AM to 10:00 AM - East Meeting Room 7

Chair: **Zhimin Tan - Baker Hughes**

Presentations:

A Fracture Mechanics Study on Pressure Armour Wire in Flexible Pipes, {152967}, 8:30 AM - 8:52 AM
Technical Paper Publication

Mario Augusto Lopes de Castro - Lloyd's Register
Eduardo Pereira Motta - Lloyd's Register
Sean Murray - Lloyd's Register
Euan Trousdale - Lloyd's Register
Zhimin Tan - Baker Hughes Flexible Pipe Systems
Linfa Zhu - Baker Hughes Flexible Pipe Systems
Qi Yang - Baker Hughes Flexible Pipe Systems
Wenye Ye - Baker Hughes Flexible Pipe Systems

Finite Element Modelling of Residual Stresses in Flexible Pipe Pressure Armor C Profiles, {156622}, 8:52 AM - 9:14 AM
Technical Paper Publication

Rodrigo Provasi - University of São Paulo
Fernando Geremias Toni - University of São Paulo
Clovis De Arruda Martins - University of São Paulo
Roberto Ramos Junior - University of São Paulo
Georger Carneiro Campello - Petrobras
Rodolfo Figueira De Souza - Petrobras
Tiago Brun Coser - Petrobras

A Comparative Study Into the Fatigue Capacity of the Pressure and Tensile Armor Layers in Unbonded Flexible Pipes, {156779}, 9:14 AM - 9:36 AM

Technical Paper Publication

Nicolai Ytterdal Juul - NOV
Abhishek Gupta - NOV
Tommy Pedersen - NOV
Mads Peter Christiansen - NOV
Christian Bergenstorf Nielsen - NOV

A Case Study on Optimising Flexible Riser Fatigue Design, {155314}, 9:36 AM - 9:58 AM
Technical Paper Publication

Sean Husband - Atteris
Craig Booth - Atteris
Emilien Rulence - Atteris
Céline Lanoëlle - Atteris

6/24/2025

8:30 AM to 10:00 AM - East Meeting Room 16

Chair: **Owen Oakley - Retired**

Presentations:

Tanker Hull in Regular Waves: CFD Comparison to Existing Experiments, {156756}, 8:30 AM - 8:52 AM

Technical Paper Publication

Cedric Fallet - German Aerospace Center
Tobias Lampe - German Aerospace Center
Marco Klein - German Aerospace Center
Sören Ehlers - German Aerospace Center

Hydrodynamic Analysis of Wave Suppression Plate Based on Computational Fluid Dynamics, {156915}, 8:52 AM - 9:14 AM

Technical Paper Publication

Hao Wang - Wuhan University of Technology
Shunhuai Chen - Wuhan University of Technology
Ming Liu - Guangxi Zhongchuan Beibu Gulf Ship and Marine Engineering Design Co., Ltd
Zhengzhong Pan - Guangxi Zhongchuan Beibu Gulf Ship and Marine Engineering Design Co., Ltd.

Numerical Study on Hydrodynamic Interaction Between Two Parallel Ships Advancing in Waves Taking Surge Into Consideration, {157065}, 9:14 AM - 9:36 AM

Technical Paper Publication

Jiawei Yu - Huazhong University of Science and Technology
Meng Meng - Huazhong University of Science and Technology
Yueming Jiang - Huazhong University of Science and Technology
Chaobang Yao - Huazhong University of Science and Technology
Zhiguo Zhang - Huazhong University of Science and Technology

Numerical Study on the Sloshing Moment of a Rectangular Liquid Tank Induced by Forced Roll Excitation Based on the SPH Method, {157308}, 9:36 AM - 9:58 AM

Technical Paper Publication

Hao Yu - Huazhong University of Science and Technology
Chaobang Yao - Huazhong University of Science and Technology
Jiawei Yu - Huazhong University of Science and Technology
Guohua Dong - Huazhong University of Science and Technology

6/24/2025

8:30 AM to 10:00 AM - East Meeting Room 6

Chair: **Sören Ehlers -**

Presentations:

The Numerical Study for the Prediction of Available Net Thrust on an Arctic Vessel, {156955}, 8:30 AM - 8:52 AM

Technical Paper Publication

Haneul Kim - National Korea Maritime and Ocean University
Yongjun Kim - Hanwha Ocean
Hyounggil Park - Samsung Heavy Industries, Co., LTD
Jinkyu Kim - Samsung Heavy Industries, Co., LTD
Gisu Song - Korea Maritime & Ocean University

Automated Processing of LIDAR Point Clouds for Sea Ice Analysis, {157271}, 8:52 AM - 9:14 AM

Technical Paper Publication

Anna Halleraker Vihovde - NTNU
Oskar Gjesdal Veggeland - NTNU

Ekaterina Kim - NTNU
Roger Skjetne - NTNU

Advancing Sustainable Icebreaking: Alternative Fuels and Operational Efficiency for a Northern Baltic Sea Case, {157777}, 9:14 AM - 9:36 AM

Technical Paper Publication

Roomet Leiger - Tallinn University of Technology
Pentti Kujala - Tallinn University of Technology
Ulla Tapaninen - Tallinn University of Technology
Kristine Carjova - Tallinn University of Technology

Improvement of Polar Operational Limit Assessment Risk Indexing System Based on a Probabilistic Method, {158324}, 9:36 AM - 9:58 AM

Technical Paper Publication

Boyang Jiao - Shanghai Jiao Tong University
Fang Li - Shanghai Jiao Tong University
Chihyun Sung - Lloyd's Register Asia
Rob Tustin - Lloyd's Register Classification Society (China) Co., Ltd
Pentti Kujala - Shanghai Jiao Tong University

6/24/2025

8:30 AM to 10:00 AM - East Meeting Room 15

Chair: **Krish Thiagarajan Sharman** -

Chair: **Masoud Hayatdavoodi** -

Chair: **Xiaofan Li** -

Presentations:

Streamlined Experimental Approach to System Identification of WEC Dynamics and Excitation Characteristics, {156997}, 8:30 AM - 8:52 AM

Technical Paper Publication

Daniel Gaebele - Sandia National Laboratories
Ryan Coe - Sandia National Laboratories
Giorgio Bacelli - Sandia National Laboratories
Dominic Forbush - Sandia National Laboratories
Bret Bosma - Oregon State University
Courtney Beringer - Oregon State University
Bryson Robertson - Oregon State University
Pedro Lomonaco - Oregon State University

An Updated Mooring Cost Modeling Tool Set With Application to a Reference Model Wave Energy Converter, {156384}, 8:52 AM - 9:14 AM

Technical Paper Publication

Ryan Davies - National Renewable Energy Laboratory
Elena Baca - National Renewable Energy Laboratory
Matthew Hall - National Renewable Energy Laboratory

Investigation on the Effects of Stiffness Model on the Fatigue Damage of the Moorings for a Wave Energy Converter, {157318}, 9:14 AM - 9:36 AM

Technical Paper Publication

Felipe José Vidal - Centre for Marine Technology and Ocean Engineering (CENTEC), Instituto Superior Técnico
Shan Wang - Centre for Marine Technology and Ocean Engineering (CENTEC), Instituto Superior Técnico
Carlos Guedes Soares - Centre for Marine Technology and Ocean Engineering (CENTEC), Instituto Superior Técnico

Position Estimation of a Wave Energy Converter Using Limited Sensor Data, {157552}, 9:36 AM - 9:58 AM

Technical Paper Publication

Nataliia Sergiienko - University of Adelaide
Mathieu Cocho - Carnegie Clean Energy
Arie Paap - Carnegie Clean Energy

6/24/2025

8:30 AM to 10:00 AM - East Meeting Room 8

Chair: **Solomon Yim** -

Presentations:

Research on Dynamic Response Analysis and Tmd Control of Moored Floating Bridge Under Wave Load, {156598}, 8:30 AM - 8:52 AM
Technical Presentation Only

Chenchen Zhou - Harbin Institute of Technology

Anxin Guo - Harbin Institute of Technology

Jialei Yan - Harbin Institute of Technology

Experimental Study on Wave Attenuation by Buoyant and Flexible Vegetation for Sustainable Coastal Protection, {157335}, 8:52 AM - 9:14 AM

Technical Presentation Only

Saeideh Baghanian - Queen's University Belfast

Pal Schmitt - Queen's University Belfast

Gerard Hamill - Queen's University Belfast

David Green - University of Aberdeen

Christian Wilson - Agri-Food and Biosciences Institute (Northern Ireland)

Adam Mellor - Agri-Food and Biosciences Institute (Northern Ireland)

Aerodynamic Optimization of In-Line and Parallel Layouts for Symmetric Cambered Wingsail Installation, {155321}, 9:14 AM - 9:36 AM

Technical Paper Publication

Stephan Van Reen - Chalmers University of Technology

Heng Zhu - Chalmers University of Technology

Jianfeng Lin - Institute of Mechanics, Chinese Academy of Sciences

Jiqiang Niu - Southwest Jiaotong University

Peter Sharpe - Massachusetts Institute of Technology

Hua-Dong Yao - Chalmers University of Technology

Accuracy Improvement of Directional Wave Spectrum Estimation Around Sea-Going Vessel, {155393}, 9:36 AM - 9:58 AM

Technical Paper Publication

Jae-Hyeon Son - Multidisciplinary Structural Mechanics Laboratory, INHA University

Yooil Kim - Multidisciplinary Structural Mechanics Laboratory, INHA University

6/24/2025

8:30 AM to 10:00 AM - East Meeting Room 10

Chair: **Solomon Yim** -

Presentations:

Launching of a Heavy Structure by Float-Off With a Semisubmersible Barge, {157608}, 8:30 AM - 8:52 AM

Technical Presentation Only

Mateusz Graczyk - BOA Management AS

Development of Integrated Evaluation Model for Ship Berthing Risk, {152663}, 8:52 AM - 9:14 AM

Technical Paper Publication

Sang-Won Lee - National Korea Maritime and Ocean University

Hak-Chan Kim - National Korea Maritime and Ocean University

Ik-Soon Cho - National Korea Maritime and Ocean University

Research on the Design and Engineering Application of Export Single Point Mooring System in Ultra-Shallow Water - A Case Study of Pile-Based Column Export Style Single Point Mooring System, {156096}, 9:14 AM - 9:36 AM

Technical Paper Publication

Zhiyuan Ji - Offshore Oil Engineering Co.Ltd

Wei Chen - Offshore Oil Engineering Co.Ltd

Huailiang Li - Offshore Oil Engineering Co.Ltd

Bo Liu - Offshore Oil Engineering Co.Ltd

Junjie Lei - Offshore Oil Engineering Co.Ltd

Vessel Detection Based on Ocean Satellite Data Using U-Net, {156144}, 9:36 AM - 9:58 AM

Technical Paper Publication

Hak-Chan Kim - National Korea Maritime & Ocean University

Hyeong-Tak Lee - Korea Institute of Ocean Science & Technology
Sang-Won Lee - National Korea Maritime & Ocean University
Ik-Soon Cho - National Korea Maritime & Ocean University

6/24/2025

8:30 AM to 10:00 AM - East Meeting Room 17

Chair: **Solomon Yim** -

Presentations:

Sensitivity Analysis of Catenary Line Design for Multi-Point Mooring System, {158563}, 8:30 AM - 8:52 AM
Technical Presentation Only
chuanzheng chen - Institute of Acoustics, Chinese Academy of Sciences

A Simplified Finite Element Model With Periodic Boundary Conditions for the Collapse Analysis of Flexible Pipes, {156722}, 8:52 AM - 9:14 AM
Technical Paper Publication
Weihaoye - Sun Yat-sen University
Xiaotian Li - Sun Yat-sen University

Mooring System Influence on the Response of Floating Breakwaters, {157067}, 9:14 AM - 9:36 AM
Technical Paper Publication
Emerson Andrade - UFRJ
Antonio Fernandes - UFRJ
Joel Sales Junior - UFRJ

Insights on the Fatigue-Limit-State Assessments of HVDC Cable Bundles, {157521}, 9:36 AM - 9:58 AM
Technical Paper Publication
Terry Griffiths - Aurora Offshore Engineering Ltd.
Yunfei Teng - Aurora Offshore Engineering Ltd.
Jack Jorgensen - Aurora Offshore Engineering Ltd.
Fabrizio Pistani - Aurora Offshore Engineering Ltd.
Daniel Carneiro - Aurora Offshore Engineering Ltd.
Tongming Zhou - The University of Western Australia
Hongwei An - The University of Western Australia
Liang Cheng - School of Marine Science and Engineering, South China University of Technology

6/24/2025

8:30 AM to 10:00 AM - East Meeting Room 5

Chair: **Marco Klein - German Aerospace Center - Institute of Maritime Energy Systems**

Presentations:

The Effect of Icebreaker Assistance on the Attained Carbon Intensity Indicator of a Merchant Ship Operating in the Northern Baltic Sea, {156948}, 8:30 AM - 8:52 AM
Technical Paper Publication
Ivan Mazanikov - Aker Arctic Technology
Rob Hindley - Aker Arctic Technology

Design and Optimization of a Hybrid Energy System for an Ice-Class Research Vessel, {156801}, 8:52 AM - 9:14 AM
Technical Paper Publication
Dheeraj Gosala - German Aerospace Center (DLR) - Institute of Maritime Energy Systems
Tobias Lampe - German Aerospace Center (DLR) - Institute of Maritime Energy Systems
Gesa Ziemer - German Aerospace Center (DLR) - Institute of Maritime Energy Systems
Sören Ehlers - German Aerospace Center (DLR) - Institute of Maritime Energy Systems

Identifying Opportunities for Uncrewed Vessel Technology in Offshore Wind Projects Using Automatic Identification System (AIS) Data, {156708}, 9:14 AM - 9:36 AM
Technical Paper Publication
Paul Newman - University of Exeter

Ian Ashton - University of Exeter
Phillip Thies - University of Exeter
Nassif Berrabah - EDF UK Research & Development
Ajit Pillai - University of Exeter

Optimization of Oscillation Dynamics in a VDS Deployment, {156739}, 9:36 AM - 9:58 AM

Technical Paper Publication

Jonas Feuerhahn - Hamburg University of Technology
Stefan Krüger - Hamburg University of Technology

6/24/2025

8:30 AM to 10:00 AM - East Meeting Room 14

Chair: **Amy Robertson** -

Chair: **Krish Thiagarajan Sharman** -

Presentations:

WindFloat FC: A Four-Column Floating Wind Turbine Foundation - Part I - Global Sizing and Global Performance Analysis, {157428}, 8:30 AM - 8:52 AM

Technical Paper Publication

Bradley Ling - Principle Power Inc.
Nicolas Germain - Principle Power France
Bruce Martin - Principle Power Inc.
Yannick Debruyne - Principle Power Portugal
Daewoong Son - Principle Power Inc.
Surya Banumurthy - Principle Power Inc.
Cyril Godreau - Principle Power Portugal
Seth Price - Principle Power Inc.
Antoine Peiffer - Principle Power Inc.

Numerical Analysis on the Pitch Motion Response of a Semi-Submersible Floating Wind Platform, {157001}, 8:52 AM - 9:14 AM

Technical Paper Publication

Lulu Liu - University of Western Australia
Ian Milne - University of Western Australia
Hugh Wolgamot - University of Western Australia
Wenhua Zhao - University of Western Australia

Numerical Study on the Performance of a Semi-Submersible Floating Wind Turbine With Active Ballasting System, {157036}, 9:14 AM - 9:36 AM

Technical Paper Publication

Wei Meng - Harbin Engineering University
Jiacan Lyu - Harbin Engineering University
Yao Zhang - University College London
Huanfeng Song - China Ship Scientific Research Center

Synergising Floating Wind and Hydrogen Production and Storage: Insights From the HyFloat Concept, {157614}, 9:36 AM - 9:58 AM

Technical Paper Publication

Claudio Alexis Rodriguez Castillo - University of Strathclyde
Saishuai Dai - University of Strathclyde
Maurizio Collu - University of Strathclyde
Feargal Brennan - University of Strathclyde

6/24/2025

8:30 AM to 10:00 AM - East Meeting Room 12

Chair: **Zhiming Yuan** - *University of Strathclyde*

Chair: **R. Cengiz Ertekin** - *Univ. of Hawaii*

Presentations:

A Practical Assessment Method in Prediction Minimum Propulsion Power to Ensure Safe Navigation of FLNGs and FPSOs in Adverse Condition, {156558}, 8:30 AM - 8:52 AM

Technical Paper Publication

*Hye-Jong Son - Samsung Heavy Industries
Joo-Sung Kim - Samsung Heavy Industries
Hee-Dong Lee - Samsung Heavy Industries
Yong-Chul Lee - Samsung Heavy Industries*

Optimizing Fatigue Life Predictions for Floating Offshore Wind Turbines: Impact of Binning and Data Duration, {157262}, 8:52 AM - 9:14 AM

Technical Paper Publication

*Prokopios Vlachogiannis - IDCORE/EDF
Christophe Peyrard - EDF/LNHE/LHSV
Ajit Pillai - University of Exeter
David Ingram - University of Edinburgh
Maurizio Collu - University of Strathclyde*

Numerical Study on Form Factor Determination for Trimarans With Different Outrigger Layouts, {157254}, 9:14 AM - 9:36 AM

Technical Paper Publication

*Shangming Wang - University of Stavanger
Minh Jimmy Le - University of Stavanger
Guang Yin - University of Stavanger
Muk Chen Ong - University of Stavanger*

6/24/2025

8:30 AM to 10:00 AM - East Meeting Room 9

Chair: **Tomoki Ikoma - Nihon University**

Chair: **Tomoya Inoue - JAMSTEC**

Chair: **Ryota Wada - University of Tokyo**

Presentations:

Enhancing Autonomous Recognition in Deep-Sea Environments With AI-Based Target Detection and 3D Depth Estimation, {155491}, 8:30 AM - 8:52 AM

Technical Paper Publication

*Kazuya Iwashita - Japan Agency for Marine-Earth Science and Technology
Hitoshi Kakami - Japan Agency for Marine-Earth Science and Technology
Yosaku Maeda - Japan Agency for Marine-Earth Science and Technology
Masato Ishii - Japan Agency for Marine-Earth Science and Technology
Takeshi Yamamoto - IVIS, Inc.*

Obstacle Detection and Avoidance Method Using Object Detection Model and Stereo Vision, {156199}, 8:52 AM - 9:14 AM

Technical Paper Publication

*Hitoshi Kakami - Japan Agency for Marine-Earth Science and Technology
Yosaku Maeda - Japan Agency for Marine-Earth Science and Technology
Kazuya Iwashita - Japan Agency for Marine-Earth Science and Technology
Tomoya Inoue - Japan Agency for Marine-Earth Science and Technology
Takahiro Taneichi - Osaka University
Hiroaki Koike - Osaka University Graduate School of Engineering
Yuhei Noborio - Osaka University Graduate School of Engineering
Atsuo Maki - Osaka University Graduate School of Engineering*

Deep Seabed Images Produced by the Underwater UV Laser Scanner Mounted on an Underwater Vehicle in Deep-Water Tests, {156720}, 9:14 AM - 9:36 AM

Technical Paper Publication

Shojiro Ishibashi - JAMSTEC (Japan Agency for Marine-Earth and Science Technology)

Evaluation of Acoustic Positioning of Underwater Vehicle From Seabed Lander System in an Ocean Experiment, {157519}, 9:36 AM - 9:58 AM

Technical Paper Publication

*Yoshitaka Watanabe - JAMSTEC
Yosaku Maeda - JAMSTEC
Hitoshi Kakami - JAMSTEC*

6/24/2025

10:30 AM to 12:00 PM - East Meeting Room 16

Chair: **Owen Oakley - Retired**

Chair: **Bayard Holmes - Red Wing Engineering**

Chair: **Tim Bunnik - MARIN**

Chair: **Stephen Cosgrove - Altair**

Chair: **Yadong Zeng - Altair**

Chair: **Celso Pesce - USP**

Presentations:

A Study on the Hydrodynamic Interactions Between Demi-Hulls on Roll Damping of a Catamaran Type Crew Transfer Vessel Using RANS Simulations, {156334}, 10:30 AM - 10:52 AM

Technical Paper Publication

Motoki Araki - National Maritime Research Institute, Japan

Kunihide Ohashi - National Maritime Research Institute, Japan

Assessment of Fully Eulerian Phase-Field Framework for Ship Hydrodynamics With Ice Interaction, {157199}, 10:52 AM - 11:14 AM

Technical Paper Publication

Sabiha Bhuiyan - University of British Columbia

Biswajeet Rath - University of British Columbia

Xiaoyu Mao - University of British Columbia

Rajeev Jaiman - University of British Columbia

Numerical Study on Hydrodynamic Performance of Three-Dimensional Oscillating Foil Under Calm Water and Wave Conditions, {157294}, 11:14 AM - 11:36 AM

Technical Paper Publication

Yueming Jiang - Huazhong University of Science and Technology

Chaobang Yao - Huazhong University of Science and Technology

Guohua Dong - Huazhong University of Science and Technology

Jiawei Yu - Huazhong University of Science and Technology

Jun Jiao - China Special Vehicle Research Institute

Towards a Ship Simulator Using Advanced Multi-Sensor Fusion for Maritime Navigation and Environmental Awareness, {157648}, 11:36 AM - 11:58 AM

Technical Paper Publication

Jothish S - INDIAN INSTITUTE OF TECHNOLOGY MADRAS

Mukesh Sk - INDIAN INSTITUTE OF TECHNOLOGY MADRAS

Athira Muraleedharan Nambiar - SRM Institute of Science and Technology,

Suresh Rajendran - IIT Madras

6/24/2025

10:30 AM to 12:00 PM - East Meeting Room 13

Chair: **Jonas Ringsberg -**

Presentations:

Fatigue Crack Initiation in Welded Joints of Subsea Pipelines Considering Grain Size and Surface Roughness, {157042}, 10:30 AM - 10:52 AM

Technical Paper Publication

Zhihao Song - Tianjin University

Jun Liu - Shanghai Jiaotong University

Nian-Zhong Chen - Tianjin University

Study of Radial Crushing for the Interlocking Layer of a Flexible Riser With Four V-Shape Shoes, {157476}, 10:52 AM - 11:14 AM

Technical Paper Publication

José Luis Quispe - Federal University of Rio de Janeiro

Luis Antonio Flores - Federal University of Rio de Janeiro
Adriely Martins - Federal University of Rio de Janeiro
Geovana Drumond - Federal University of Rio de Janeiro
Marcelo Lourenço - Federal University of Rio de Janeiro
Lucas Ferreira - CENPES/PETROBRAS
Anderson Barata - CENPES/PETROBRAS
Alexandre Cordeiro - CENPES/PETROBRAS

Optimization of Welding Sequences and Deformation Minimization Using Stiffness Condensation for Weld Joints, {156396}, 11:14 AM - 11:36 AM

Technical Presentation Only

Taewoo Kim - Korea Maritime and Ocean University
Seunghwan Boo - Korea Maritime and Ocean University
Gwangsan Chun - Mokpo National University

A Method for Improving Sloshing Assessment in Membrane-Type Cargo Tanks Considering Structural Nonlinearity, {157197}, 11:36 AM - 11:58 AM

Technical Presentation Only

Myung-Il Roh - Seoul National University
Minkyu Park - HD Hyundai Heavy Industries
Mun-Gwan Choi - HD Hyundai Heavy Industries
Seongbo Park - HD Hyundai Heavy Industries
Yong-Tai Kim - HD Hyundai Heavy Industries
Hoonkyu Oh - HD Hyundai Heavy Industries
Byungki Choi - HD Hyundai Heavy Industries
Dong-Woo Kim - HD Hyundai Heavy Industries

6/24/2025

10:30 AM to 12:00 PM - East Meeting Room 18

Chair: **ergun kuru - Univ Of Alberta**

Presentations:

Rheological Modeling of Sustainable Drilling Fluid Optimized for Electromagnetic Geophysical Exploration, {155358}, 10:30 AM - 10:52 AM

Technical Paper Publication

Leila Abbasian - Memorial University of Newfoundland
Oluwatimilehin M. Akindele - Memorial University of Newfoundland
Abdelsalam N. A. Abugharara - Memorial University of Newfoundland
Stephen D. Butt - Memorial University of Newfoundland

Enhancing Thermal Stability of Inhibitive WBM: Fluid Design for HPHT and Geothermal Drilling, {156494}, 10:52 AM - 11:14 AM

Technical Paper Publication

Abdulrahman Altashah - The University of Tulsa
Evren Ozbayoglu - Tulsa University
Silvio Baldino - The University of Tulsa
I. Hakki Gucuyener - GEOS Drilling Fluids & Waste Management

CO2 Hydrate Inhibition in Drilling Fluids Using Mono-Ethylene Glycol, {156972}, 11:14 AM - 11:36 AM

Technical Paper Publication

Elie Ngouamba - SINTEF
Blandine Feneuil - SINTEF
Jan Ole Skogestad - SINTEF
Harald Linga - SINTEF
Sven Inge Ødegård - eDrilling AS

Evaluating the Feasibility of Using CO2 As a Drilling Fluid for Mars Exploration Operations, {156970}, 11:36 AM - 11:58 AM

Technical Paper Publication

Saeed Bin Tamim - Akita University
Shigemi Naganawa - Akita University

6/24/2025

10:30 AM to 12:00 PM - East Meeting Room 19

Chair: **ergun kuru - Univ Of Alberta**

Presentations:

Experimental Investigation on Microscopic Oil-Sweeping Behaviour of Novel Injection-Soaking-Production via Fractures (ISPF) in a Tight Sandstone Oil Reservoir, {157168}, 10:30 AM - 10:52 AM

Technical Paper Publication

Hongguang Shi - China University of Petroleum (Beijing)

Guangfeng Liu - China University of Petroleum (Beijing)

Shouhu Wang - PetroChina Changqing Oilfield Company

Yuanyuan Du - PetroChina Changqing Oilfield Company

Juntao Wang - PetroChina Changqing Oilfield Company

Daoyong (Tony) Yang - University of Regina

Experimental Evaluation on Feasibility of Water Huff-N-Puff Processes in a Naturally Fractured Oil Reservoir With Low Permeability, {157173}, 10:52 AM - 11:14 AM

Technical Paper Publication

Lingzhi Yang - China University of Petroleum (Beijing)

Hongguang Shi - China University of Petroleum (Beijing)

Guangfeng Liu - China University of Petroleum (Beijing)

Xiaming Wei - China University of Petroleum (Beijing)

Xinwei Liao - China University of Petroleum (Beijing)

Daoyong (Tony) Yang - University of Regina

Gas Invasion Rule and Characterization Method Under Multi-Field Coupling in Deepwater and Deep-Formation Fractured Gas Reservoirs, {156433}, 11:14 AM - 11:36 AM

Technical Paper Publication

Hui Liu - CNPC Engineering Technology R&D Company Limited

Xiang Gao - CNPC Engineering Technology R&D Company Limited

Jing Yu - CNPC Engineering Technology R&D Company Limited

Gang Chen - China University of Petroleum (East China) Qingdao

Xueqi Liu - China University of Petroleum (East China) Qingdao

Zhiyuan Wang - China University of Petroleum (East China) Qingdao

Research on Foam Flow and Flooding Characteristics of Fractured Vuggy Reservoirs, {157264}, 11:36 AM - 11:58 AM

Technical Paper Publication

Zhengxiao Xu - Changzhou University

Faqiang Dang - China University of Petroleum

Tong Yu - Shanghai Police College, East China University of Political Science and Law

Kang Yang - Research Institute of Shaanxi Yanchang Petroleum (Group) Co., Ltd. Shaanxi Key Laboratory of CO2

Sequestration and Enhanced Oil Recovery

Lei Tao - Changzhou University

6/24/2025

10:30 AM to 12:00 PM - East Meeting Room 7

Chair: **Zhimin Tan - Baker Hughes**

Presentations:

Integration of AI Neural Network in Predicting Service Life of Flexible Pipe Tensile Armor at Crack Initiation Stage Under SCC-CO2 Environment, {155138}, 10:30 AM - 10:52 AM

Technical Paper Publication

Wenye Ye - Baker Hughes

Qi Yang - Baker Hughes

Marcelo Ribeiro - Baker Hughes

Carlos Ribeiro - Baker Hughes

Linfa Zhu - Baker Hughes

Alberto Alvino - Baker Hughes

Zhimin Tan - Baker Hughes

Fatigue Performance of Unbonded Flexible Pipes With Advanced Material Layers, {157463}, 10:52 AM - 11:14 AM

Technical Paper Publication

Marcelo Miyazaki - TechnipFMC
Pedro Henrique Barboza - TechnipFMC
Kristof Vraniskoski - TechnipFMC
Miguel Felipe Batista - TechnipFMC
Anh-Tuan Do - TechnipFMC
Camila Belford Jobim - TechnipFMC
Alexandre Damiens - TechnipFMC

Finite Element Analysis of Thermoplastic Composite Pipes Under Installation Loads, {157299}, 11:14 AM - 11:36 AM

Technical Paper Publication

Inês Freitas - UFRJ - Federal University of Rio de Janeiro
José De Sousa - UFRJ - Federal University of Rio de Janeiro
Alexandre Cunha - UFRJ - Federal University of Rio de Janeiro
Winston E Gama - Petrobras
Charlton De Souza - Petrobras

Dynamic Flexible Riser Ancillary Equipment - North Sea Asset Integrity Management Experience and Lessons Learned, {156150}, 11:36 AM - 11:58 AM

Technical Presentation Only

Damir Tadjiev - DT Engineering Consulting

6/24/2025

10:30 AM to 12:00 PM - East Meeting Room 15

Chair: **Krish Thiagarajan Sharman -**

Chair: **Kelley Ruehl -**

Chair: **Nhu Nguyen -**

Presentations:

The Albany M4 Project: The First Open-Access Wave Energy Deployment, {156312}, 10:30 AM - 10:52 AM

Technical Paper Publication

Christophe Gaudin - The University of Western Australia, Oceans Institute
Hugh Wolgamot - The University of Western Australia
Adi Kurniawan - The University of Western Australia
Wiebke Ebeling - The University of Western Australia
Nuwantha Fernando - RMIT University
Peter Stansby - University of Manchester
Judith Apsley - University of Manchester
Chris Shearer - BMT
Brad Saunders - BMT
Guy Mccauley - The University of Western Australia
Matt Hatcher - The University of Western Australia

Comparison of an Array of Floating Oscillating Water Column Point Absorbers With Compliant and Catenary Shared Mooring Systems, {157072}, 10:52 AM - 11:14 AM

Technical Paper Publication

Giulia Creazola - UFRJ
Emerson Andrade - UFRJ
Antonio Fernandes - UFRJ
Joel Sales Junior - UFRJ

A Floating Unit for Wave Power Driven Desalination of Seawater: The Hydrodynamics of the Ocean Oasis Buoy, {157405}, 11:14 AM - 11:36 AM

Technical Paper Publication

Thomas B Johannessen - Ocean Oasis AS
Øystein Lande - Ocean Oasis AS
Per Erlend T. Voie - Ocean Oasis AS

6/24/2025

10:30 AM to 12:00 PM - East Meeting Room 8

Chair: **Solomon Yim** -

Presentations:

Experimental Study on the Effect of Marine Growth on Wave-Structure Interaction of Thin Plates, {156269}, 10:30 AM - 10:52 AM
Technical Paper Publication

Sukruth Satheesh - Deutsches Zentrum für Luft- und Raumfahrt

Christian Windt - TU Braunschweig

Henri Busch - TU Braunschweig

Marco Klein - Deutsches Zentrum für Luft- und Raumfahrt

Nils Goseberg - TU Braunschweig

Motions and Loads on a Moored Floating Ocean Structure in Large Waves and Strong Currents, {156591}, 10:52 AM - 11:14 AM
Technical Paper Publication

M Hasanat Zaman - National Research Council Canada

Ayhan Akinturk - National Research Council Canada

An Efficient Numerical Model for Evaluation of the Whipping Influence on Fatigue Life of Structural Details of Floating Structures, {156618}, 11:14 AM - 11:36 AM
Technical Paper Publication

Nikola Vladimir - University of Zagreb, Faculty of Mechanical Engineering and Naval Architecture

Ivo Senjanovic - University of Zagreb, Faculty of Mechanical Engineering and Naval Architecture

Guilherme Salazar - Petrobras, SRGE/ESUP

Dilnei Schmidt - Petrobras, SRGE/ESUP

Hangul Kang - Hyundai Heavy Industries

Ganesan Alagar - Seatrium (SG) Pte Ltd.

Jin Zhu Ge - Seatrium (SG) Pte Ltd

Andro Bakica - University of Split, Faculty of Maritime Studies

Sime Malenica - Bureau Veritas Marine & Offshore

An Efficient Method of Defining the Tail of a Distribution: Application to Wave-In-Deck Loading, {156728}, 11:36 AM - 11:58 AM
Technical Paper Publication

Chong Huo - Imperial College London

Li Ma - Imperial College London

Ioannis Karpadakis - Imperial College London

6/24/2025

10:30 AM to 12:00 PM - East Meeting Room 5

Chair: **Marco Klein - German Aerospace Center - Institute of Maritime Energy Systems**

Presentations:

Proposal for a Conceptual Model for a Public Policy on Ship Dismantling Based on Multicriteria Analysis: Brazilian Case, {155155}, 10:30 AM - 10:52 AM

Technical Paper Publication

Andre Ricardo Mendonca Pinheiro - Universidade Federal do Rio de Janeiro - Departamento de Engenharia Naval e Oceânica

Jean-David Job Emmanuel Marie Caprace - Universidade Federal do Rio de Janeiro

Newton Narciso Narciso Pereira - Universidade Federal Fluminense

Analysis of Extreme Weather Factors for Ship Contact Accidents In Ports Over the Past 25 Years, {156975}, 10:52 AM - 11:14 AM
Technical Paper Publication

Gabriel Chikelu - Aalto University

Mingyang Zhang - Aalto University

Sunil Basnet - Aalto University

Meriam Chaal - Aalto University

Osiris Valdez Banda - Aalto University

Data-Driven Phase-Resolved Sea Surface Reconstruction From Synthetic X-Band Radar Data, {156721}, 11:14 AM - 11:36 AM
Technical Paper Publication

Mathies Wedler - German Aerospace Center (DLR), Institute of Maritime Energy Systems

Nicolas Desmars - German Aerospace Center (DLR), Institute of Maritime Energy Systems

Merten Stender - Technische Universität Berlin, Cyber-Physical Systems in Mechanical Engineering

Sören Ehlers - German Aerospace Center (DLR), Institute of Maritime Energy Systems

6/24/2025

10:30 AM to 12:00 PM - East Meeting Room 17

Chair: **Solomon Yim** -

Presentations:

Hydrodynamic Analysis and Optimisation of a Subsea Towed Docking Station in Variable Sea States, {155087}, 10:30 AM - 10:52 AM
Technical Paper Publication

Dirk Hinrich Hops - University of Rostock

Sprenger Florian - University of Rostock

Belamri Djamel - Trier University of Applied Sciences

Christian Kahnert - Flensburg University of Applied Sciences

Development of Cooperative Formation Control System for Multiple Cruising AUVs With Acoustic Positioning Between AUVs, {156538}, 10:52 AM - 11:14 AM

Technical Paper Publication

Takumi Sato - National Maritime Research Institute

Kangsoo Kim - National Maritime Research Institute

Akihiro Okamoto - National Maritime Research Institute

Shogo Inaba - National Maritime Research Institute

Jun Umeda - National Maritime Research Institute

Toshifumi Fujiwara - National Maritime Research Institute

Experimental Study on the Dynamic Stiffness of Full-Scale Polyester Ropes With Damage Levels, {157585}, 11:14 AM - 11:36 AM

Technical Paper Publication

Da Li - CNOOC Research Institute Ltd.

Yongyue Xie - 河海大学

Yushun Lian - 河海大学

Xinshu Zhang - State Key Laboratory of Ocean Engineering, Shanghai Jiao Tong University

Solomon Yim - Oregon State University

6/24/2025

10:30 AM to 12:00 PM - East Meeting Room 10

Chair: **Solomon Yim** -

Presentations:

Assessing the Workability of Heavy Lift Vessels in Complex Sea States Using Response-Based Approach, {157278}, 10:30 AM - 10:52 AM
Technical Paper Publication

Rita Morice Gomez - Deme

Samson O. Alufa - Deme

Benjamin Baert - Deme

Dynamic Collision Avoidance for Maritime Navigation Using UKF Based Predictive Probability and Velocity Obstacle Framework, {157408}, 10:52 AM - 11:14 AM

Technical Paper Publication

Farhana Akter - Memorial University of Newfoundland

Syed Imtiaz - Memorial University of Newfoundland

Salim Ahmed - Memorial University of Newfoundland

Mohammed Shameem Islam - Ocean, Coastal and River Engineering Research Centre, NRC

M. Hasanat Zaman - Canada National Research Council

Motion Response Research of a Floating-Crane in Wave Environment During Platform Installation, {155446}, 11:14 AM - 11:36 AM

Technical Paper Publication

Guohong Zhou - China Yantai Salvage,

Yaoguang Li - China Yantai Salvage

Zhang Wei - China Yantai salvage

Zikai Xu - China Yantai Salvage

6/24/2025

10:30 AM to 12:00 PM - East Meeting Room 12

Chair: **Masoud Hayatdavoodi - University of Dundee**

Chair: **R. Cengiz Ertekin - Univ. of Hawaii**

Presentations:

Free-Hanging Riser Fatigue Improvement Using High Strength Steel, {152423}, 10:30 AM - 10:52 AM

Technical Paper Publication

Andre Ramiro Amorim - Subsea7

Fernanda Cristina De Moraes Takafuji - Subsea7

Peyman Asgari - Subsea7

Vincent Loentgen - Subsea7

Peter Tanscheit - Subsea7

Design and Simulation of the Wreck-Salvage Clamp, {156092}, 10:52 AM - 11:14 AM

Technical Paper Publication

Zhang Wei - China Yantai salvage

Yalong Ye - China Yantai Salvage,

Jingwei Jiang - Shandong Future Robot Co., LTD

Zhidong Shang - China Yantai Salvage

Hongle Cai - Shandong Future Robot Co., LTD

Jingjing Liu - China Yantai Slave Technology Center

The Response of a Weathervaning Vessel in Cyclonic Conditions: A New Tool, {157183}, 11:14 AM - 11:36 AM

Technical Paper Publication

Michael Binsar Lubis - The University of Western Australia

Yuriy Drobyshevski - NavTec Pty Ltd

Mehrdad Kimiaei - The University of Western Australia

James Whelan - The University of Western Australia

Michael Morris-Thomas - The University of Western Australia

6/24/2025

10:30 AM to 12:00 PM - East Meeting Room 9

Chair: **Tomoki Ikoma - Nihon University**

Chair: **Daisuke Kitazawa - The University of Tokyo**

Chair: **Muk Chen Ong - University of Stavanger**

Presentations:

A Numerical Hydrodynamic Analysis on Loads and Deformation of a Floating Closed Flexible Fish Cage, {157270}, 10:30 AM - 10:52 AM

Technical Paper Publication

Shuchuang Dong - Tokyo University of Marine Science and Technology

Zhiyue Duan - Tokyo University of Marine Science and Technology

Daisuke Shiode - Tokyo University of Marine Science and Technology

Ryusuke Miyamoto - Tokyo University of Marine Science and Technology

Daisuke Kitazawa - Institute of Industrial Science, The University of Tokyo

Numerical Study of Mooring Force and Motion Response in Closed Fish Cage Systems for Marine Aquaculture, {157238}, 10:52 AM - 11:14 AM

Technical Paper Publication

Jinxin Zhou - The University of Tokyo

Shuchuang Dong - Tokyo University of Marine Science and Technology

Hongxia Gao - The University of Tokyo

Daisuke Kitazawa - The University of Japan

A Novel Model for Measuring Tensions Between the Floater and Bag of a Closed Flexible Fish Cage, {155266}, 11:14 AM - 11:36 AM

Technical Paper Publication

Kangnian Wang - The University of Tokyo
Yunzhou Han - The University of Tokyo
Shenyi Bai - The University of Tokyo
Jinxin Zhou - The University of Tokyo
Daisuke Kitazawa - The University of Tokyo

Experimental and Numerical Study on the Effects of Configuration on Motion Responses of Spar-Type Floating Structure and Aquaculture Net Cage Under Regular Waves, {155958}, 11:36 AM - 11:58 AM

Technical Paper Publication

Shenyi Bai - The University of Tokyo
Genki Yano - Yokohama National University
Shuchuang Dong - Tokyo University of Marine Science and Technology
Qiao Li - Yokohama National University
Jinxin Zhou - The University of Tokyo
Motohiko Murai - Yokohama National University
Daisuke Kitazawa - The University of Tokyo

6/24/2025

10:30 AM to 12:00 PM - East Meeting Room 14

Chair: **Krish Thiagarajan Sharman** -

Chair: **Ajit Pillai** -

Presentations:

Wave-Current Loading on a Lazy Wave Dynamic Power Cable, {157578}, 10:30 AM - 10:52 AM

Technical Paper Publication

Rameeza Moideen - The University of Edinburgh
Vengatesan Venugopal - University of Edinburgh
John Chaplin - University of Southampton
Alistair Borthwick - University of Edinburgh

Irregular Wave-Current Motion Response of a Lazy Wave Power Cable, {157575}, 10:52 AM - 11:14 AM

Technical Paper Publication

Rameeza Moideen - The University of Edinburgh
Vengatesan Venugopal - University of Edinburgh
John Chaplin - University of Southampton
Alistair Borthwick - University of Edinburgh

Vortex-Induced Vibrations of Lazy-Wave Cables by Using Multiple Wake Oscillators, {156165}, 11:14 AM - 11:36 AM

Technical Paper Publication

Rameez Badhurshah - Newcastle University
Narakorn Srinil - Newcastle University

Dynamic Response of Inter-Array Cable Subject to Internal Solitary Waves, {155096}, 11:36 AM - 11:58 AM

Technical Paper Publication

Hassan Yousef - Kongsberg Maritime AS
Henan Li - Kongsberg Maritime AS
João Pedro - Kongsberg Maritime AS
Kenji Shimizu - RPS
Paul Gundersen - Equinor / COWI
Rasmus Kulseng - Equinor
Timothy Kendon - Equinor

6/24/2025

10:30 AM to 12:00 PM - East Meeting Room 6

Presentations:

Full-Scale FEM Simulations of Single Ice Floe Impacts on a Non Ice-Strengthened Ship Structure Using the MCNS Model, {154586}, 10:30 AM - 10:52 AM

Technical Paper Publication

Franciska Müller - Hamburg University of Technology, Institute for Ship Structural Design and Analysis
Jan Willem Van Bergen - Ministry of Defense, Command Materiel & IT (COMMIT), Maritime Systems department (AMS)
Mark A. Rodriguez - Naval Surface Warfare Center Carderock Division
Sander Dragt - TNO, Department of Naval & Offshore Structures
Franz Von Bock Und Polach - Hamburg University of Technology, Institute for Ship Structural Design and Analysis
Sören Ehlers - German Aerospace Center (DLR), Institute of Maritime Energy Systems

A Potential Application of DEM-CFD Coupling Method for Brash Ice Model Testing, {156576}, 10:52 AM - 11:14 AM

Technical Paper Publication

Hanyang Gong - Aker Arctic Technology Inc
Malith Prasanna - Aalto University

Reconstructing Beam Bending Strength of Arctic Second Year Ice From Small Disk Bending Tests, {156762}, 11:14 AM - 11:36 AM

Technical Paper Publication

Franz Von Bock Und Polach - TUHH
Jan Kubiczek - TUHH

SPH Modeling of Water Flow Over Ice, {157437}, 11:36 AM - 11:58 AM

Technical Paper Publication

Soroosh Afzali - Arctic Reflections
Fonger Ypma - Arctic Reflections
Tom Meijeraan - Arctic Reflections
Cody Owen - Arctic Reflections

6/24/2025

1:30 PM to 3:00 PM - East Meeting Room 16

Chair: **Owen Oakley - Retired**

Chair: **Bayard Holmes - Red Wing Engineering**

Chair: **Tim Bunnik - MARIN**

Chair: **Stephen Cosgrove - Altair**

Chair: **Yadong Zeng - Altair**

Chair: **Celso Pesce - USP**

Presentations:

Numerical Study on Flow Noise Characteristics of Underwater Vehicles With Different Rudder Layouts, {156950}, 1:30 PM - 1:52 PM

Technical Paper Publication

Meng Meng - Huazhong University Of Science And Technology
Chaobang Yao - Huazhong University Of Science And Technology
Guohua Dong - Huazhong University Of Science And Technology
Dakui Feng - Huazhong University Of Science And Technology

Integrated Numerical and Experimental Study of Cavitating Flow and Underwater Noise in Tug Vessels With Ducted Propellers, {157545}, 1:52 PM - 2:14 PM

Technical Paper Publication

Zhi Cheng - UBC
Suraj Kashyap - The University of British Columbia
Brendan Smoker - Robert Allan Ltd.
Giorgio Burella - Robert Allan Ltd.
Rajeev Jaiman - The University of British Columbia

Marine Propeller Reverse Engineering and Retrofitting, {157096}, 2:14 PM - 2:36 PM

Technical Paper Publication

Marko Mikulec - Department of Ocean Operations and Civil Engineering, Norwegian University of Science and Technology NTNU, Norway
Jonathan Marsaudon - Department of Ocean Operations and Civil Engineerin, Norwegian University of Science and Technology NTNU, Norway
Henry Piehl - Norwegian University of Science and Technology

CFD Prediction of Scale Effect on Appendages of DTMB5415, {157306}, 2:36 PM - 2:58 PM

Technical Paper Publication

Jianxin Li - China Ship Scientific Research Center

Ang Guo - China Ship Scientific Research Center
Meng Meng - Huazhong University Of Science And Technology
Xiaojun Hou - China Ship Scientific Research Center
Zhiguo Zhang - Huazhong University Of Science And Technology
Chaobang Yao - Huazhong University Of Science And Technology

6/24/2025

1:30 PM to 3:00 PM - East Meeting Room 19

Chair: **ergun kuru - Univ Of Alberta**

Chair: **Evren Ozbayoglu - The University of Tulsa**

Chair: **Dan Sui - University of Stavanger**

Presentations:

Rate of Penetration Optimal Control Considering Drillstring Vibration via Data Analytics, {157340}, 1:30 PM - 1:52 PM

Technical Paper Publication

Dan Sui - University of Stavanger

Hamed Sahebi - Department of Energy and Petroleum Engineering

Anders Hetland - Department of Energy and Petroleum Engineering

Borehole Trajectory Modeling Using Circular Arcs, Constant Curvature and Toolface, and Sections With Constant Build-Up and Turn Rates, {157430}, 1:52 PM - 2:14 PM

Technical Paper Publication

Eric Cayeux - NORCE

Optimization and Performance Assessment of Decanter Centrifuges for Low-Gravity Solids Removal in Drilling Operations, {156491}, 2:14 PM - 2:36 PM

Technical Paper Publication

Silvio Baldino - The University of Tulsa

Evren Ozbayoglu - Tulsa University

Rogério Pedro - Instituto Superior Politécnico de Tecnologias e Ciências

Michael Dykalski - -

6/24/2025

1:30 PM to 3:00 PM - East Meeting Room 9

Chair: **Shinichiro Hirabayashi - The University of Tokyo**

Chair: **Kazuhiro Iijima - The University of Osaka**

Chair: **Tomoki Ikoma - Nihon University**

Presentations:

Experimental Methodology for Power Generation Assessment of a Point-Absorber Wave Energy Converter Based on a Small-Scale Model, {155190}, 1:30 PM - 1:52 PM

Technical Paper Publication

Tatsuki Kawagishi - Yokohama National University

Ryusei Anzai - Yokohama National University

Motohiko Murai - Yokohama National University

Jialin Han - Yokohama National University

Qiao Li - Yokohama National University

Study on the Tendency of Acquiring Hydrodynamic Interaction Effects Among Multiple PA-WECs Being Learned the Control Strategies by AI Under a Single State, {156519}, 1:52 PM - 2:14 PM

Technical Paper Publication

Motohiko Murai - Yokohama National University

Miyuki Homma - Yokohama National Univ.

Tatsuki Kawagishi - Yokohama National Univ.

Jialin Han - Yokohama National Univ.

Basic Research in Resonance Characteristics of a Water Column in the Oscillating Water Column Type Wave Energy Converter by Free Decay Test, {156690}, 2:14 PM - 2:36 PM

Technical Paper Publication

Yutaro Sasahara - Tokyo University of Marine Science and Technology
Makoto Morito - Tokyo University of Marine Science and Technology
Mitsuhiro Masuda - Tokyo University of Marine Science and Technology
Junichiro Tahara - Tokyo University of Marine Science and Technology

6/24/2025

1:30 PM to 3:00 PM - East Meeting Room 18

Chair: **ergun kuru - Univ Of Alberta**

Presentations:

Well Closure Collaboration: the State of Technical Knowledge, {157376}, 1:30 PM - 1:52 PM

Technical Presentation Only

Tannis Such - PTAC Petroleum Technology Alliance Canada
Allan Fogwill - Petroleum Technology Alliance Canada

Optimization of Primary Cementing for Heavy Oil Wells: A Simulation-Based Case Study, {155064}, 1:52 PM - 2:14 PM

Technical Paper Publication

Sophia Sotoudeh - The University of British Columbia
Akumah Ndeh Ngwa - The University of British Columbia
Soheil Akbari - The University of British Columbia
Gunnar Debruijn - Sanjel Energy Services
Ian A. Frigaard - The University of British Columbia

Mixing Behavior of Viscous Fluids Following Placement in Plug and Abandonment of Oil and Gas Wells, {155296}, 2:14 PM - 2:36 PM

Technical Paper Publication

Soheil Akbari - University of British Columbia
Mahdi Izadi - University of British Columbia
Yosef Rezaei - University of British Columbia
Ian A. Frigaard - University of British Columbia

Experimental Insights Into Geometrical Parameter Effects on the Jet Cleaning Process in the Plug and Abandonment of Oil and Gas Wells, {155546}, 2:36 PM - 2:58 PM

Technical Paper Publication

Hossein Hassanzadeh - Laval University
Mohsen Faramarzi - Université Laval
Seyed Mohammad Taghavi - Université Laval

6/24/2025

1:30 PM to 3:00 PM - East Meeting Room 5

Chair: **Yunil Chu -**

Presentations:

Overall Risk Perspective for Ocean Aquaculture, {157093}, 1:30 PM - 1:52 PM

Technical Presentation Only

Per Arild Aland - DNV

Experimental and Numerical Analysis of Hydrodynamic Forces on Non-Traditional Net Types Used in Salmon Farming, {155006}, 1:52 PM - 2:14 PM

Technical Paper Publication

Pablo Matamala - Universidad Austral de Chile
Vicente Barrientos - Universidad Austral de Chile
Cristian Cifuentes - Universidad Austral de Chile
Gonzalo Tampier - Universidad Austral de Chile
Alex Brown - Biolift

Short-Term Distribution and Variability of Fish Cage Responses Under Irregular Waves, {156523}, 2:14 PM - 2:36 PM

Technical Paper Publication

Mingyuan Ma - Griffith University
Hong Zhang - Griffith University
Chien Ming Wang - The University of Queensland
Yunil Chu - The University of Queensland
Xinyu Zhang - Griffith University

Experimental Testing and Calibrated Mechanical-Hydrodynamic Modelling of Net for a Modular Fish Pen, {157750}, 2:36 PM - 2:58 PM
Technical Paper Publication

Lazarus Gyang - Griffith University
Hassan Karampour - Griffith University
Ian Underhill - Griffith University
Hong Zhang - Griffith University
Chien Ming Wang - The University of Queensland
Yunil Chu - The University of Queensland
Joerg Baumeister - Griffith University

6/24/2025

1:30 PM to 3:00 PM - East Meeting Room 15

Chair: **Madjid Karimirad** -

Chair: **Krish Thiagarajan Sharman** -

Presentations:

Wave Induced Response of Shallow Draft Interconnected pontoons, {156362}, 1:30 PM - 1:52 PM
Technical Paper Publication

William Otto - MARIN
Thomas Kluwer - Oceans of Energy
Spyros Hirdaris - ABS

Influence of Geometrical Characteristics of Cylindrical floater on the dynamic responses of floating solar platforms under irregular waves, {157079}, 1:52 PM - 2:14 PM
Technical Paper Publication

Gautam Baruah - Queens University Belfast
Madjid Karimirad - Queen's University Belfast
Arash Abbasnia - University of Rostock

Predicting floating photovoltaic platform multi-variable dynamic responses with neural network learning methods, {157094}, 2:14 PM - 2:36 PM

Technical Paper Publication

Morgan Campbell - Queens University Belfast
Madjid Karimirad - Queens University Belfast
Nguyen Minh Nhat - Queens University Belfast
Mien Van - Queens University Belfast
Vikram Pakrashi - University College Dublin

Analysis of wave-structure interaction of floating photovoltaic modules: results from wave flume testing on load responses under regular waves, {154990}, 2:36 PM - 2:58 PM

Technical Paper Publication

Christian Windt - Technische Universität Braunschweig
Leo Koyama - Technische Universität Braunschweig
Felix Spröer - Technische Universität Braunschweig
David Schürenkamp - Technische Universität Braunschweig
Nils Goseberg - Technische Universität Braunschweig

6/24/2025

1:30 PM to 3:00 PM - East Meeting Room 8

Chair: **Solomon Yim** -

Presentations:

Study on the Implosion of Composite Pressure-Resistant Structure Under Different External Conditions, {156778}, 1:30 PM - 1:52 PM
Technical Paper Publication

Xinyu Zhang - Shanghai Jiao Tong University
Min Zhao - Shanghai Jiao Tong University
Shengxia Sun - Shanghai Jiao Tong University
Tong Ge - Shanghai Jiao Tong University

Investigation of the Hydrodynamic Responses of a Moonpool With Damping Appendages Based on the Two-Way Coupled CFD-PF Method, {156991}, 1:52 PM - 2:14 PM

Technical Paper Publication

Wei Meng - Harbin Engineering University
Yiren Li - Harbin Engineering University
Zhuang Kang - Harbin Engineering University
Dan Li - Harbin Engineering University

Computational Analysis on the Gap Flow Between Quay Wall and Multi Floaters, {157003}, 2:14 PM - 2:36 PM

Technical Paper Publication

Kyeonguk Heo - Research Institute of Ships and Ocean engineering(KRISO)
Dongmin Park - Korea Research Institute of Ships and Ocean engineering(KRISO)
Dongho Jung - Korea Research Institute of Ships and Ocean engineering(KRISO)

Solitary Wave Propagation Over Partially-Buried Pipes, {157243}, 2:36 PM - 2:58 PM

Technical Paper Publication

Masoud Hayatdavoodi - University of Dundee
R. Cengiz Ertekin - University of Hawaii

6/24/2025

1:30 PM to 3:00 PM - East Meeting Room 10

Chair: **Solomon Yim** -

Presentations:

Toward Robust Tracking Control of Unmanned Surface Vehicles in Complex Aquatic Environments: Online Data-Driven Model Predictive Control via Sparse Gaussian Process Regression, {156242}, 1:30 PM - 1:52 PM

Technical Paper Publication

Jiarong Liu - Shanghai Jiao Tong University
Linyu Li - Shanghai Jiao Tong University
Mingyang Li - Shanghai Jiao Tong University
Xi Chen - Marine Design and Research Institute of China
Yongsheng Zhao - Shanghai Jiao Tong University

Hydrodynamic Performance Assessment of Long-Line Oyster Farming Systems, {157570}, 1:52 PM - 2:14 PM

Technical Paper Publication

Sung-Jae Kim - National Institute of Fisheries Science
Seong-Jae Jeong - National Institute of Fisheries Science
Sung-Ju Park - Tongmyong University

A Method for Computing the Equilibrium Heading of Turret-Moored Platforms With Validation Using Real Data, {156285}, 2:14 PM - 2:36 PM

Technical Paper Publication

Humberto Akira Uehara Sasaki - University of São Paulo / Numerical Offshore Tank Laboratory (TPN-USP)
Asdrubal Do Nascimento Queiroz Filho - University of São Paulo / Numerical Offshore Tank Laboratory (TPN-USP)
Alessandro Da Cunha Menegon - University of São Paulo / Numerical Offshore Tank Laboratory (TPN-USP)
João Vicente Sparano - University of São Paulo / Numerical Offshore Tank Laboratory (TPN-USP)
Alexandre Nicolaos Simos - University of São Paulo / Numerical Offshore Tank Laboratory (TPN-USP)
Eduardo Aoun Tannuri - University of São Paulo / Numerical Offshore Tank Laboratory (TPN-USP)
Carlos Eduardo Holmes Chads - Petrobrás

MilliAmpere1 Autonomous Ferry Prototype: Hardware and Software, {155401}, 2:36 PM - 2:58 PM

Technical Paper Publication

Miguel Hinostroza - Norwegian University of Science and Technology (NTNU)
Egil Eide - Department of Electronic Systems, Norwegian University of Science and Technology
Edmund Brekke - Norwegian University of Science and Technology - NTNU

Morten Breivik - Norwegian University of Science and Technology - NTNU
Anastasios Lekkas - Norwegian University of Science and Technology - NTNU
Roger Skjete - Norwegian University of Science and Technology - NTNU
Torleiv Håland - Norwegian University of Science and Technology - NTNU
Alexey Gusev - Norwegian University of Science and Technology - NTNU
Andreas Gudahl - Norwegian University of Science and Technology - NTNU

6/24/2025

1:30 PM to 3:00 PM - East Meeting Room 12

Chair: **Rajiv Aggarwal - Reliable Offshore Systems LLC**

Chair: **R. Cengiz Ertekin - Univ. of Hawaii**

Presentations:

The Mooring Digital Twin: Fatigue and Integrity Monitoring to Support Life Extension, {156248}, 1:30 PM - 1:52 PM

Technical Paper Publication

Kanishka Jayasinghe - AMOG

Adrian Eassom - AMOG

Clare Thomas - AMOG

Callum Stevens - AMOG

Larry Blair - AMOG

Advanced Sensors and Digital Twin Technology for Reliable Mooring Integrity Assessment Through Physics Based Models, {157554}, 1:52 PM - 2:14 PM

Technical Paper Publication

Suvabrata Das - BMT Commercial USA Inc.

Hossein Agheshlui - BMT Commercial Australia Pty Ltd

Soma Maraju - BMT Commercial USA Inc.

Inferring Structural Motion and Properties in Fluid Through Wake Flow Sensing, {156996}, 2:14 PM - 2:36 PM

Technical Paper Publication

Vivian Oletty - Arizona State University

Leixin Ma - Arizona State University

A Relaxation Scheme for Solving Convolutional Forces in Adaptive Time Step ODE Solvers, {156353}, 2:36 PM - 2:58 PM

Technical Paper Publication

Yu Ma - University of Stavanger

Muk Chen Ong - University of Stavanger

Zhiyu Jiang - University of Agder

Lin Li - University of Stavanger

6/24/2025

1:30 PM to 3:00 PM - East Meeting Room 14

Chair: **Krish Thiagarajan Sharman -**

Presentations:

Dashed Against the Rocks - Comparison of Distributed Acoustic Sensing (DAS) Data and Physical Response Models of Subsea Cables, {157573}, 1:30 PM - 1:52 PM

Technical Paper Publication

Jasper Paterson - The University of Western Australia

Terry Griffiths - Aurora Offshore Engineering

Fabrizio Pistani - Aurora Offshore Engineering

Adrian Keating - The University of Western Australia

Fraser Johnson - SAE Renewables

Mutual Influence of Subsea Power Cables and Rock Bags on Their Hydrodynamic Behaviors, {157158}, 1:52 PM - 2:14 PM

Technical Paper Publication

Feifei Tong - The University of Adelaide

Terry Griffiths - Aurora Offshore Engineering

Scott Draper - The University of Western Australia
Hongwei An - The University of Western Australia
Jay Clayton - Aurora Offshore Engineering
Jack Jorgensen - The University of Western Australia
Liang Cheng - The University of Western Australia

On Ultimate Limit State Assessment for Dynamic Power Cables on Floating Wind Turbines, {156425}, 2:14 PM - 2:36 PM
Technical Paper Publication

Mohd Atif Siddiqui - Kongsberg Maritime AS
Joao Filipe Beja Pedro - Kongsberg Maritime AS
Paul Gundersen - Equinor / COWI
Mathias Huuse Marley - Equinor ASA
Øystein Johannessen - Equinor ASA
Henan Li - Kongsberg Maritime AS
Hassan Yousef - Kongsberg Maritime AS

6/24/2025

1:30 PM to 3:00 PM - East Meeting Room 13

Presentations:

Comparison of Different Methods for Ultimate Strength Assessment of Ship Model in Bending, {155097}, 1:30 PM - 1:52 PM
Technical Paper Publication

Thomas Lindemann - University of Rostock
Alessandro La Ferlita - University of Duisburg-Essen
Patrick Kaeding - University of Rostock

A Numerical Method to Estimate the Collapse Pressure of a 2-D Steel-Concrete-Steel Sandwich Ring, {156470}, 1:52 PM - 2:14 PM
Technical Paper Publication

Hung-Chun Lin - University of Michigan-Ann Arbor
Matthew Collette - University of Michigan - Ann Arbor

Ultimate Strength of FPSO Stiffened Panels With Pitting Corrosion, {156500}, 2:14 PM - 2:36 PM
Technical Paper Publication

John H. Chujutalli - Federal University of Rio de Janeiro, Ocean Engineering Department-COPPE
Lucas Navarro B. Zacharias - Norwegian University of Science and Technology (NTNU)
Marcelo I. Lourenço - Federal University of Rio de Janeiro, Ocean Engineering Department-COPPE

Influence of Design Parameters on the Ultimate Torsional Strength of Wind Turbine Tower Structure, {157030}, 2:36 PM - 2:58 PM
Technical Paper Publication

Won Seok Choi - Pukyong National University
Jung Min Sohn - Pukyong National University
Sang Jin Kim - National Sun Yat-sen Univ.

6/24/2025

1:30 PM to 3:00 PM - East Meeting Room 6

Presentations:

Extreme Value Assessment of Ice Loading on Sloping Structures Based on Ice Property Distributions, {155964}, 1:30 PM - 1:52 PM
Technical Paper Publication

Chana Sinsabvarodom - Chiang Mai University
Bernt J. Leira - Norwegian University of Science and Technology
Knut v. Høyland - Norwegian University of Science and Technology
Arvid Næss - Norwegian University of Science and Technology
Wei Chai - Wuhan University of Technology
Siramas Komonjinda - Chiang Mai University
Waraporn Nuntiyakul - Chiang Mai University
Achara Seripienlert - Chiang Mai University

A Co-Simulation Framework for Ice-Floating Wind Turbine Interaction, {157494}, 1:52 PM - 2:14 PM
Technical Paper Publication
Mojtaba Mokhtari - NTNU

Machine Learning Based Computational Models for Increased Accuracy and Enabling Digital Twins, {157406}, 2:14 PM - 2:36 PM
Technical Paper Publication
Mihkel Kõrgesaar - Tallinn University of Technology
Muhammed Adil Yarkin - Tallinn University of Technology

6/24/2025

1:30 PM to 3:00 PM - East Meeting Room 7

Presentations:

HOW THE COLLAPSE PRESSURE OF THICK-WALLED PIPES IS AFFECTED BY THE SHAPE AND MAGNITUDE OF DENTS, {160831}, 1:30 PM - 1:52 PM
Technical Presentation Only
Caroline Ferraz - COPPE
Theodoro Netto - Fundacao Coppetec

Fitness for Service Studies for Rigid Spool Tie-Ins, {155520}, 1:52 PM - 2:14 PM
Technical Paper Publication
Xuexin Dai - Subsea7
M Faizal Chenoth T - Subsea7
Nicolas Henry - Subsea7

Theoretical Analysis of the Collapse Performance of Thick-Walled Pipes With Corrosion Defect Under External Pressure and Bending, {155962}, 2:14 PM - 2:36 PM
Technical Paper Publication
Libei Zhou - Zhejiang Shuren University
Xipeng Wang - Hangzhou City University

Small-Scale Tests on the Dynamic Compression of Lazy-Wave Risers: Experimental Design Methodology, {156173}, 2:36 PM - 2:58 PM
Technical Paper Publication
Vitor Schwenck Franco Maciel - University of São Paulo
Guilherme Rosa Franzini - University of São Paulo
Celso Pupo Pesce - University of São Paulo
Letícia Siqueira Madi - University of São Paulo
Victor Matias De Biaggi Tucci - University of São Paulo
Rodrigo Provasi Correia - University of São Paulo
Clovis De Arruda Martins - University of São Paulo
Pedro Cardozo De Mello - University of São Paulo
Cristiano Emilio Justiniano - University of São Paulo
Guttorm Grytøyr - Equinor
Rodrigo Do Nascimento Carvalho - Equinor

6/24/2025

1:30 PM to 3:00 PM - East Meeting Room 17

Presentations:

Performance Evaluation of a Hypothetical 5 MW OTEC in the Brazilian Blue Amazon Region That Offers the Best Overall Operational Cost-Benefit Ratio, {158986}, 1:30 PM - 1:52 PM
Technical Paper Publication
Joel Sena Sales Junior - Instituto Alberto Luiz Coimbra de Pós-Graduação e Pesquisa de Engenharia, COPPE, Programa de Engenharia Naval e Oceânica, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brasil
Roberto Valente De Souza - Instituto Alberto Luiz Coimbra de Pós-Graduação e Pesquisa de Engenharia, COPPE, Programa de Engenharia Naval e Oceânica, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brasil
Daniel De Oliveria Costa - Instituto Alberto Luiz Coimbra de Pós-Graduação e Pesquisa de Engenharia, COPPE, Programa de Engenharia Naval e Oceânica, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brasil

Antonio Carlos Fernandes - Instituto Alberto Luiz Coimbra de Pós-Graduação e Pesquisa de Engenharia, COPPE, Programa de Engenharia Naval e Oceânica, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brasil

Three-Dimensional Model of a Hanging Cold Water Intake Pipe With Internal Flow and Top-End Excitation, {156557}, 1:52 PM - 2:14 PM
Technical Paper Publication

Ryoya Hisamatsu - Department of Marine Systems Engineering, Kyushu University
Carlos Riveros-Jerez - Faculty of Engineering, Universidad de Antioquia
Tomoaki Utsunomiya - Department of Marine Systems Engineering, Kyushu University

A Swarm of Floating Breakwaters to Protect a Floating OTEC Plant, {158941}, 2:14 PM - 2:36 PM
Technical Paper Publication

Emerson Andrade - UFRJ
Joel Sales Junior - UFRJ
Antonio Fernandes - UFRJ

OTEC and DOWA for Sustainable Development of Remote Island of Fernando De Noronha in Brazil, {158985}, 2:36 PM - 2:58 PM
Technical Paper Publication

Armando Hideki Shinohara - Federal University of Pernambuco
Luiz Alberto Magri - UFPE - Federal University of Pernambuco
Cristine Louise Braun Moraes - Federal University of Pernambuco
Gustavo José De Vasconcelos Xavier - Federal University of Pernambuco
Hissae Fujiwara - Federal University of Pernambuco
Ayako Ono - Federal University of Pernambuco
Yasuyuki Ikegami - Saga University
Benjamin Martin - Xenosys Inc.
Flaminio Levy Neto - University of Brasilia
Joel Sena Sales Junior - Federal University of Rio de Janeiro

6/24/2025

3:30 PM to 5:00 PM - East Meeting Room 16

Chair: **Owen Oakley - Retired**

Chair: **Narakorn Srinil -**

Chair: **Madhusuden Agrawal - BP**

Chair: **Celso Pesce - USP**

Presentations:

Analysis of Fatigue Caused by Flow Induced Pulsation in Subsea Jumper Dead-Legs, {153799}
Technical Presentation Only

Ed Hollis - Element Digital Engineering
Fergus Moran - Element Digital Engineering
Alistair Gill - Element Digital Engineering
Bruce Kakimpa - Element Digital Engineering

On Prediction of FIP in Closed Side Branches by CFD, {156033}
Technical Paper Publication

Oskar Tylén - OneSubsea
Olivier Macchion - OneSubsea
Stefan Belfroid - TNO

Fatigue Life Assessment of an In-Service Subsea Riser Tower Subjected to Flow Induced Vibration: Part 1 of 2 – Measurement, {156774}
Technical Paper Publication

Mike Lewis - Xodus Group
Aurélien Petitgas - TotalEnergies
Gernot Wally - Xodus Group
Nick Horder - Xodus Group
Jerome Sarrasin - TotalEnergies

Fatigue Life Assessment of an In-Service Subsea Riser Tower Subjected to Flow Induced Vibration: Part 2 of 2 – Simulation, {156790}
Technical Paper Publication

Mike Lewis - Xodus Group
Gernot Wally - Xodus Group
Nick Horder - Xodus Group

6/24/2025

3:30 PM to 5:00 PM - East Meeting Room 18

Chair: **ergun kuru - Univ Of Alberta**

Presentations:

Qualification of Bismuth-Based Plugs for Plugging and Abandonment: Where Do We Stand?, {156938}, 3:30 PM - 3:52 PM

Technical Paper Publication

Marcelo Jaculli - NTNU

Lewaa Hmadeh - NTNU

Sigbjørn Sangesland - NTNU

Behzad Elahifar - NTNU

The Sealing Capability of Compacted Drilling Fluids Solids in Oil and Gas Wells, {157022}, 3:52 PM - 4:14 PM

Technical Paper Publication

Anna Magdalena Stroisz - SINTEF

Mohammad Hossain Bhuiyan - SINTEF

Erling Fjær - SINTEF

Elie Ngouamba - SINTEF

Kamila Gawel - DEC Poland Tekpro Sp. z o.o. ; SINTEF Industry

Experimental Study of Concept to Ease Pipe Pulling Through Settled Barite, {157188}, 4:14 PM - 4:36 PM

Technical Paper Publication

Ali Taghipour - SINTEF

Elie Ngouamba - SINTEF

Mohammad Hossain Bhuiyan - SINTEF

Even Wiggen - SINTEF

Jan David Ytrehus - SINTEF

Investigating the Correlation Between Compressive and Tensile Strength of Well Cement During the Curing Process, {157620}, 4:36 PM - 4:58 PM

Technical Paper Publication

Zahra Rahmani - University of British Columbia

Ian Frigaard - University of British Columbia

Sardar Malek - University of Victoria

Simon Iremonger - Sanjel Energy Services Company

6/24/2025

3:30 PM to 5:00 PM - East Meeting Room 19

Chair: **ergun kuru - Univ Of Alberta**

Presentations:

Integrated Characterization of Solvent/steam Chamber Growth and Propagation Dynamics in Heavy Oil/bitumen Reservoirs, {157175}, 3:30 PM - 3:52 PM

Technical Presentation Only

Daoyong (Tony) Yang - University of Regina

Shikai Yang - University of Regina

Research on the Site Renovation of Geological Compressed Gas Energy Storage by Sequestering CO₂ in Depleted Oil and Gas Reservoirs, {155399}, 3:52 PM - 4:14 PM

Technical Paper Publication

Qiliang Cui - China University of Petroleum, Beijing

Shuang Li - China University of Petroleum, Beijing

Xianzhi Song - China University of Petroleum, Beijing

Yu Shi - Jilin University

Jialin Zhou - Beijing Geological and Mineral Prospecting Institute

Gaosheng Wang - China University of Petroleum, Beijing
Junlin Yi - China University of Petroleum, Beijing
Jialin Zhao - China University of Petroleum, Beijing

Visualization and Quantitative Analysis of Shale Properties Under CO₂ Fluid-Rock Interaction: Implication for CO₂ Geological Storage, {155566}, 4:14 PM - 4:36 PM

Technical Paper Publication

Lianhe Sun - China University of Petroleum, Beijing
Haizhu Wang - China University of Petroleum, Beijing
Zelong Mao - China University of Petroleum, Beijing
Peichun Amy Tsai - University of Alberta
Bin Wang - China University of Petroleum, Beijing
Yaochen Zhang - China University of Petroleum, Beijing
Xu Cheng - China University of Petroleum, Beijing
Huan Li - China University of Petroleum, Beijing
Mingsheng Liu - China University of Petroleum, Beijing

Novel CO₂-Soluble-Surfactant-Based Foam System for EOR And Geological CO₂ Storage in High-Water-Cut Reservoirs, {157119}, 4:36 PM - 4:58 PM

Technical Paper Publication

Faolang Dang - China University of Petroleum (East China)
Songyan Li - China University of Petroleum (East China)
Runyi Zhang - Yeungnam University
Huazhou Li - University of Alberta

Experimental Investigation on CO₂-Crude Oil Phase Behaviour and CO₂ Displacement Performance in a Tight Reservoir, {157169}, 4:58 PM - 5:00 PM

Technical Paper Publication

Nana Zou - China University of Petroleum-(Beijing)
Guangfeng Liu - China University of Petroleum-(Beijing)
Xueqin Wang - PetroChina Qinghai Oilfield Company
Teng Gu - PetroChina Qinghai Oilfield Company
Bin Hu - PetroChina Qinghai Oilfield Company
Daoyong (Tony) Yang - University of Regina

6/24/2025

3:30 PM to 5:00 PM - East Meeting Room 5

Chair: **Yunil Chu** -

Presentations:

Validation and Verification Field Trials of Air Diffuser Systems for Upwelling Applications, {156372}, 3:30 PM - 3:52 PM

Technical Paper Publication

Premkumar Thodi - C-CORE
Jonathon Bruce - C-CORE
Vandad Talimi - C-CORE
Mario Paris - CanadianPond.ca Products Ltd.
Mohamed Youssef - CanadianPond.ca Products Ltd
Patrick McDonald - CanadianPond.ca Products Ltd

Hydroelastic Buckling Analysis of a Novel Fish Pen, {156985}, 3:52 PM - 4:14 PM

Technical Paper Publication

Xinyu Zhang - Griffith University
Hong Zhang - Griffith University
Chien Ming Wang - The University of Queensland
Mingyuan Ma - Griffith University
Yunil Chu - The University of Queensland

Comparative Analysis of Hydroelastic Responses of Novel Offshore Submersible Fish Cage in Regular and Real-Data-Derived Irregular Waves, {155082}, 4:14 PM - 4:36 PM

Technical Paper Publication

Yunil Chu - The University of Queensland
Chien Ming Wang - The University of Queensland
Mingyuan Ma - Griffith University

Research on Evaluation and Numerical Calculation of Marine Resource Utilization Based on Land Sea Coordination, {157361}, 4:36 PM - 4:58 PM

Technical Paper Publication

Yue Deng - National Marine Data and Information Service

Jin Li - National Marine Data and Information Service

Yingzhi Cao - National Marine Data and Information Service

Jingli Zhao - National Marine Data and Information Service

Qi Zang - National Marine Data and Information Service

6/24/2025

3:30 PM to 5:00 PM - East Meeting Room 15

Chair: **Madjid Karimirad -**

Chair: **Krish Thiagarajan Sharman -**

Presentations:

Estimation of Wind Load on Floating Solar Array, {156928}, 3:30 PM - 3:52 PM

Technical Paper Publication

Prince Arora - Floatex Solar Private Limited

Suhail Ahmad - IIT Delhi

Badri Prasad Patel - IIT Delhi

Inaya Aggarwal - Floatex Solar Pvt Ltd

Numerical Analysis and Review of Taut-Leg and Compliant Mooring Systems for Floating Photovoltaic Systems, {157317}, 3:52 PM - 4:14 PM

Technical Paper Publication

Rodrigo Batista Soares - Federal University of Rio de Janeiro

Emerson Martins De Andrade - Federal University of Rio de Janeiro

Joel Sena Sales Junior - Federal University of Rio de Janeiro

Antonio Carlos Fernandes - Federal University of Rio de Janeiro

Influence of External Stiffness on the Hydroelastic Behaviour of a Floating Photovoltaic Concept, {156149}, 4:14 PM - 4:36 PM

Technical Paper Publication

Thea Leventopoulou - University of Agder

Jian Dai - OsloMet

Zhiyu Jiang - University of Agder

6/24/2025

3:30 PM to 5:00 PM - East Meeting Room 8

Chair: **Solomon Yim -**

Presentations:

Numerical Investigation of Open-Ocean Aquaculture Structure Motions and Mooring Dynamics Using REEF3D::CFD, {157319}, 3:30 PM - 3:52 PM

Technical Paper Publication

Ahmet Soydan - Norwegian University of Science and Technology

Gang Wang - Yellow Sea Fisheries Research Institute, Chinese Academy of Fishery Sciences

Widar Weizhi Wang - Norwegian University of Science and Technology

Hans Bihs - Norwegian University of Science and Technology

Numerical Prediction of Wave-Runup on a Monopile With the Direct Surface Description Method, {157440}, 3:52 PM - 4:14 PM

Technical Paper Publication

Erik Damgaard Christensen - Technical University of Denmark

Sigrid Tanghus Belza Belza - Technical University of Denmark

Louise Nørgaard Nielsen - Technical University of Denmark

Jesper Roland Kjærgaard Qvist - DHI

Xerxes Mandviwalla - Vattenfall

Nonlinear Wave-Body Interactions for Arbitrarily Shaped Body Using 3D Numerical Wave Tank, {157500}, 4:14 PM - 4:36 PM

Technical Paper Publication

*Eun-Hong Min - Texas A&M University
Ikjae Lee - Texas A&M University
Moohyun Kim - Texas A&M University
Chungkuk Jin - Florida Institute of Technology
Sung-Jae Kim - National Institute of Fisheries Science*

A Prediction Model for Coupled In-Line and Cross-Flow Vortex-Induced Vibration of a Near-Wall Cylinder Suffering Collision, {157547}, 4:36 PM - 4:58 PM

Technical Paper Publication

*Mengmeng Tao - China University of Petroleum (Beijing)
Xu Sun - China University of Petroleum-Beijing
Peiyi Han - China University of Petroleum-Beijing*

6/24/2025

3:30 PM to 5:00 PM - East Meeting Room 10

Chair: **Solomon Yim -**

Presentations:

On the Generation of Nonlinear Design Irregular Waves in a Wave Basin, {156328}, 3:30 PM - 3:52 PM

Technical Presentation Only

*Hidetaka Houtani - The University of Tokyo
Tomoki Takami - Kobe University
Wataru Fujimoto - Nippon Kaiji Kyokai (ClassNK)
Yusuke Komoriyama - National Maritime Research Institute
Sadaoki Matsui - National Maritime Research Institute*

Hybrid Physical-Numerical Modelling of Following Wave-Current Interaction, {156443}, 3:52 PM - 4:14 PM

Technical Paper Publication

*Tim Aertsens - KU Leuven & The University of Melbourne
Yuri Pepi - Ghent University
Maximilian Streicher - Ghent University
Jaak Monbaliu - KU Leuven
Alessandro Toffoli - The University of Melbourne
Tomohiro Suzuki - KU Leuven*

Wave Generation and Calibration at MARIN, {156460}, 4:14 PM - 4:36 PM

Technical Paper Publication

*Jule Scharnke - MARIN
Joris Van Den Berg - MARIN
Reinier Bergevoet - MARIN*

Revisiting the Logarithmic Law of Turbulent Boundary Layer in Oscillatory Flows, {157186}, 4:36 PM - 4:38 PM

Technical Paper Publication

*Bairen Chen - South China University of Technology
Yunfei Teng - South China University of Technology
Liang Cheng - South China University of Technology
Guoqiang Tang - Dalian University of Technology
Lin Lu - Dalian University of Technology
Dang Zhao - Offshore Oil Engineering Co., Ltd. Tianjin, P. R. China
Yang He - Offshore Oil Engineering Co., Ltd. Tianjin, P. R. China*

6/24/2025

3:30 PM to 5:00 PM - East Meeting Room 12

Chair: **Masoud Hayatdavoodi - University of Dundee**

Chair: **R. Cengiz Ertekin - Univ. of Hawaii**

Presentations:

Study on the Application of Hybrid Power Systems in Autonomous Small Surface Vehicles, {157194}, 3:30 PM - 3:52 PM

Technical Paper Publication

Chun Cheng Lin - CCIT, National Defense University

Kai-Chieh Chang - Naval Shipbuilding and Development Center

Ching-Cheng Su - Master Program of Naval Architecture and Ocean Engineering, CCIT, National Defense University

Kai-Xiang Chang - Master Program of Naval Architecture and Ocean Engineering, CCIT, National Defense University

Simplifying Damping Matrix Calibration in Coupled Offshore Systems Using Parameter Reduction Through Modal Decomposition, {157395}, 3:52 PM - 4:14 PM

Technical Paper Publication

Maarten van der Leij - Maritime Research Institute Netherlands

Wim Kleermaker - Maritime Research Institute Netherlands

Arjan Voogt - MARIN USA

Offshore Oil Wells Selection: Methodology and Computational Process for Configuration Selection, {157511}, 4:14 PM - 4:36 PM

Technical Paper Publication

Joaquim Rocha Dos Santos - University of São Paulo

Carlos Alberto León Chinchay - University of São Paulo

Danilo Taverna Martins Pereira De Abreu - University of São Paulo

Eric Terre Arguello Rodrigues - University of São Paulo

Danilo Colombo - Petroleo Brasileiro S.A.

Marcelo Ramos Martins - University of São Paulo

FPSO Vent Post Gas Dispersion Analysis - Alternatives to Minimize Hydrocarbons Return in Critical Conditions, {157626}, 4:36 PM - 4:58 PM

Technical Paper Publication

Daniel Carvalho - Petrobras

Mauro Dolinsky - Petrobras

Fernando Rodrigues - Petrobras

6/24/2025

3:30 PM to 5:00 PM - East Meeting Room 14

Chair: **Krish Thiagarajan Sharman -**

Chair: **Zhen Gao -**

Presentations:

Study on the Influence of Shared Mooring System on the Motion of Floating Offshore Wind Turbines Under Extreme Condition, {157603}, 3:30 PM - 3:52 PM

Technical Paper Publication

Yichen Jiang - Dalian University of Technology

Qifan Wang - Dalian University of Technology

Shihao Ding - Dalian University of Technology

Yanlin Shao - Technical University of Denmark

Jiawen Li - Dalian Maritime University

Conceptual Design Exploration of Gigawatt-Scale Floating Wind Farms With Shared Mooring Systems, {156633}, 3:52 PM - 4:14 PM

Technical Paper Publication

Rudy Alkarem - National Renewable Energy Laboratory

Matthew Hall - National Renewable Energy Laboratory

Leah Sirkis - National Renewable Energy Laboratory

Erica Lozon - National Renewable Energy Laboratory

Stein Housner - National Renewable Energy Laboratory

Evaluation of Mooring Tension Reduction Ratio of Load Reduction Device Using HydroQus, {156904}, 4:14 PM - 4:36 PM

Technical Paper Publication

Dong Ho Yoon - Inha University

Joonmo Choung - Inha University

Floating Wind Turbine Dynamic Response Considering Chain-Seabed Interaction in SIMA, {156781}, 4:36 PM - 4:58 PM

Technical Paper Publication

Shengjie Rui - Norwegian Geotechnical Institute
Hans Petter Jostad - Norwegian Geotechnical Institute
Zefeng Zhou - Norwegian Geotechnical Institute
Erin Bachynski-Polić - Norwegian University of Science and Technology
Svein Saevik - Norwegian University of Science and Technology
Lizhong Wang - Zhejiang University
Zhen Guo - Zhejiang University

6/24/2025

3:30 PM to 5:00 PM - East Meeting Room 9

Chair: **Tomoki Ikoma - Nihon University**

Chair: **Sotaro Masanobu - NMRI**

Chair: **Marcio Yamamoto - NMRI**

Presentations:

Research on the Dynamic Behavior of 6000M-Class Rigid Risers in Hang-Off Configuration Under Regular Wave in Deep Sea Mining Operations, {156333}, 3:30 PM - 3:48 PM

Technical Paper Publication

Zhen Lian - Yokohama National University

Marcio Yamamoto - the National Maritime Research Institute (Japan)

Motohiko Murai - Yokohama National University

Improvements in the Optimization of a 4,000 M Class Riser System for Deep Sea Mining, {156302}, 3:48 PM - 4:06 PM

Technical Paper Publication

Marcio Yamamoto - NMRI

Joji Yamamoto - NMRI

Kazuhiro Yukawa - NMRI

Effect of Internal Diameter of Pipe on Velocity Distribution for Gas-Liquid-Solid Three-Phase Pipe Flows, {156031}, 4:06 PM - 4:24 PM

Technical Paper Publication

Satoru Takano - National Maritime Research Institute

Sotaro Masanobu - National Maritime Research Institute

Pressure Loss in Curved Pipe Slurry Transport for Subsea Mining, {156321}, 4:24 PM - 4:42 PM

Technical Paper Publication

Sotaro Masanobu - National Maritime Research Institute

Satoru Takano - National Maritime Research Institute

Marcio Yamamoto - National Maritime Research Institute

Study on Gas Hydrate Formation and Dissociation Characteristics for Hydrate Slurry Transportation, {156570}, 4:42 PM - 5:00 PM

Technical Paper Publication

Yasuharu Nakajima - National Maritime Research Institute

Joji Yamamoto - National Maritime Research Institute

Satoru Takano - National Maritime Research Institute

Marcio Yamamoto - National Maritime Research Institute

Tomo Fujiwara - National Maritime Research Institute

Masao Ono - National Maritime Research Institute

6/24/2025

3:30 PM to 5:00 PM - East Meeting Room 13

Presentations:

Evaluation and Optimization of the GISSMO Damage Model in AH36 Steel, {155965}, 3:30 PM - 3:52 PM

Technical Paper Publication

Jwa Yun Kim - Pukyong National University

Sang-Jin Kim - National Sun Yat-sen University

Dae Kyeom Park - The Korea Ship and Offshore Research

Jung Min Sohn - Pukyong National University

Oblique and Normal Ship Collision Model Tests in a Water Tank, {157204}, 3:52 PM - 4:14 PM

Technical Paper Publication

Haifeng Zhou - Wuhan University of Technology
Ling Zhu - Wuhan University of Technology
Lunping Zhang - China Ship Scientific Research Center
Xiangbiao Wang - Wuhan University of Technology
Yanjie Zhao - China Ship Scientific Research Center
Kailing Guo - Wuhan University of Technology

Dynamic Response Estimation of Constant Mass Steel Plates With Different Exposed Area Configurations Under Air Blast Loads, {157320}, 4:14 PM - 4:36 PM

Technical Paper Publication

Murlidhar Patel - PDPM Indian Institute of Information Technology, Design and Manufacturing (IIITDM), Jabalpur, India
Shivdayal Patel - Indian Institute of information technology design and manufacturing Jabalpur
Suhail Ahmad - IIT Delhi
Carlo Guedes Soares - Institute superior Technico Lisbon
Prince Arora - Indian Institute of Technology Delhi

Discussion on the HAZ Softening Effect on the Impact Responses of Welded Aluminum Structures, {154970}, 4:36 PM - 4:58 PM

Technical Paper Publication

Yue Lu - Jiangsu University of Science and Technology
Shuai Zong - Jiangsu University of Science and Technology
Kun Liu - Jiangsu University of Science and Technology
Zili Wang - Jiangsu University of Science and Technology

Experimental Study on the Crashworthiness of Composite Ship Structures, {156999}, 4:58 PM - 5:20 PM

Technical Presentation Only

Sang-Hyun Park - UlsanLab Inc.
Sang-Rai Cho - UlsanLab Inc.
Youngjae Yu - UlsanLab Inc.

6/24/2025

3:30 PM to 5:00 PM - East Meeting Room 6

Presentations:

Microscopic Structural Evolution of Deep-Sea Sediments During Shear Processes, {152831}, 3:30 PM - 3:52 PM

Technical Paper Publication

Zhiyong Xu - Shanghai Jiao Tong University
Haining Lu - Shanghai Jiao Tong University
Jianmin Yang - Shanghai Jiao Tong University
Pengfei Sun - Shanghai Jiao Tong University

Image Analysis of Rock Cuttings for Real-Time Evaluation of Drilling Performance, {156539}, 3:52 PM - 4:14 PM

Technical Paper Publication

Unabatscho Modise - Memorial University of Newfoundland
Abdelsalam Abugharara - Memorial University of Newfoundland
Cui Lin - Memorial University of Newfoundland
Stephen Butt - Memorial University of Newfoundland

Multi-Source Heterogeneous Database of Excavated Earthworks During Offshore Canal Construction: Pinglu Canal Case, {156556}, 4:14 PM - 4:36 PM

Technical Paper Publication

Qi-Meng Guo - The Hong Kong Polytechnic University
Liang-Tong Zhan - Zhejiang University
Zhen-Yu Yin - The Hong Kong Polytechnic University
Yu-An Chen - Zhejiang University
Yun-Min Chen - Zhejiang University

Experimental Study on the Compression and Extension Behavior of Deep-Sea Remolded Soils Considering the Temperature Effect, {158945}, 4:36 PM - 4:58 PM

Technical Presentation Only

Mingjun Hu - The University of Hong Kong
Weiqiang Feng - SUSTech
Jun Yang - The University of Hong Kong

6/24/2025

3:30 PM to 5:00 PM - East Meeting Room 7

Presentations:

An Investigation on the Dynamic Compression of Steel Lazy-Wave Risers, {157520}, 3:30 PM - 3:52 PM

Technical Paper Publication

Rodrigo Provasi - University of São Paulo
Clovis De Arruda Martins - University of São Paulo
Guttorm Grytøyr - Equinor ASA
Rodrigo Do Nascimento Carvalhal - Equinor

Shaped Steel Catenary Riser Design Optimization Using Artificial Intelligence, {152191}, 3:52 PM - 4:14 PM

Technical Paper Publication

Anurag Yenduri - TechnipFMC
Yashpal Rana - TechnipFMC
Anju Chandran - TechnipFMC
Abhilash Sebastian - TechnipFMC

Design Drivers and Potential Solutions for Slugging Induced Fatigue of Steel Lazy Wave Risers, {155728}, 4:14 PM - 4:36 PM

Technical Paper Publication

Yashpal Rana - TechnipFMC
Abhilash Sebastian - TechnipFMC
Claire Saunier - Seal Engineering SAS
Andre Menezes - TechnipFMC

A Steel Lazy Wave Riser Installed on Converted and Purpose-Built FPSOs in Omni-Directional and Prevailing Metocean Conditions, {156026}, 4:36 PM - 4:58 PM

Technical Paper Publication

Cheslav Balash - University College London
Marius Martens - Worley Offshore Energy

6/24/2025

3:30 PM to 5:00 PM - East Meeting Room 17

Presentations:

On the Effects of Buoy Geometry on the Power Output Potential of a Pendulum Based Wave Energy Converter, {155378}, 3:30 PM - 3:52 PM

Technical Presentation Only

Mollie Reid - The University of Auckland
Vladislav Sorokin - University of Auckland
Kean Aw - University of Auckland

Development of a Self-Powered Buoy Supporting Long-Term Environmental Observation in the Arctic, {156182}, 3:52 PM - 4:14 PM

Technical Presentation Only

Zhaocheng Lu - Pacific Northwest National Laboratory
Hyunjun Jung - Pacific Northwest National Laboratory
Wonseop Hwang - Pacific Northwest National Laboratory
Jayson Martinez - Pacific Northwest National Laboratory
Ruth Branch - Pacific Northwest National Laboratory
Andrea Copping - Pacific Northwest National Laboratory
Z. Daniel Deng - Pacific Northwest National Laboratory

Dry Bench Testing of the Small Underwater Research Flap Wave Energy Converter (Surf-Wec) Power Take-Off (Pto), {156828}, 4:14 PM - 4:36 PM

Technical Presentation Only

Brianna Friedman - National Renewable Energy Laboratory

Jackson Wills - National Renewable Energy Laboratory

Senu Srinivas - National Renewable Energy Laboratory

Effects of Chamber's Fillet Radii on the Performance of Oscillating Water Column Wave Energy Converters, {157285}, 4:36 PM - 4:58 PM

Technical Presentation Only

Kwok-Yui Li - National Taiwan Ocean University

Chen-Chou Lin - National Taiwan Ocean University

WEDNESDAY, 6/25/2025

6/25/2025

8:30 AM to 10:00 AM - East Meeting Room 16

Chair: **Owen Oakley - Retired**

Chair: **Rajeev Jaiman - The University of British Columbia**

Chair: **Indu Kant Deo - UCB**

Chair: **Celso Pesce - USP**

Presentations:

Efficient Prediction of Mooring Forces of a Floating Offshore Wind Turbine Using LSTM-Based Deep Learning, {156540}

Technical Paper Publication

Tharindu Miyanawala - Technology Center for Offshore and Marine, Singapore

Hongchao Wang - Technology Centre For Offshore And Marine, Singapore

Shanli Zhang - Technology Centre For Offshore And Marine, Singapore

Harri Santo - Technology Centre For Offshore And Marine, Singapore (Tcoms)

Reduced-Order Modeling of Flow Around Cylinders Using Machine Learning, {157344}

Technical Paper Publication

Xianglong Li - Tianjin University

Guangyao Wang - University of Macau

Changhao Tang - Tianjin University

Jinfeng Zhang - Tianjin University

Hypergraph Neural Network Surrogate Modeling for Prediction of Vortex-and Wake-Induced Vibrations, {157155}

Technical Paper Publication

Shayan Heydari - The University of British Columbia

Rui Gao - The University of British Columbia

Rajeev Jaiman - The University of British Columbia

A Graph Neural Network Based Surrogate Model for Flapping-Driven Ocean Energy Harvesting, {157540}

Technical Paper Publication

Aarshana Parekh - The University of British Columbia, Vancouver

Rui Gao - The University of British Columbia

Rajeev Jaiman - The University of British Columbia

6/25/2025

8:30 AM to 10:00 AM - East Meeting Room 18

Chair: **ergun kuru - Univ Of Alberta**

Presentations:

Temperature Matching at Toe and Heel of a Horizontal Well: A Case Study, {156295}, 8:30 AM - 8:52 AM

Technical Presentation Only

Marzieh Alishahi - University of British Columbia

Zahra Rahmani - University of British Columbia

*Ian Frigaard - University of British Columbia
Gunnar Debruijn - Sanjel Energy Services Company*

Platform Drilling Life Cycle Assessment of Drilling Waste Handling, {155238}, 8:52 AM - 9:14 AM

Technical Paper Publication

*Jan David Ytrehus - SINTEF AS
Arild Saasen - University of Stavanger
Ute Brønner - SINTEF Ocean AS
May Kristin Ditlevsen - SINTEF Ocean AS*

Application of Ditch Magnet System to Extend Downhole Tool Life and Accuracy – Revealing the Quantity of Metal Contamination in Drilling Fluid, {157779}, 9:14 AM - 9:36 AM

Technical Paper Publication

*Arild Saasen - University of Stavanger
Geir Olav Ånesbug - Jagtech AS
Robert Palmer - Jagtech USA LLC*

Numerical Modeling of Cuttings Transport Influenced by V-Shaped Cleaning Tools in Horizontal Wells, {157146}, 9:36 AM - 9:58 AM

Technical Paper Publication

*Ming Gao - China University of Petroleum, Beijing
Yi Sun - China University of Petroleum, Beijing
Meng Meng Zhou - China University of Petroleum, Beijing
Xian Zhi Song - China University of Petroleum, Beijing
Zheng Ming Xu - China University of Geosciences, Beijing
Yan Han Liu - China University of Petroleum, Beijing*

6/25/2025

8:30 AM to 10:00 AM - East Meeting Room 9

Chair: **Zhimin Tan - Baker Hughes**

Presentations:

Qualification of Enhanced Sealing Solution for the Front Sealing System of Flexible Pipe End-Fitting, {154925}, 8:30 AM - 8:52 AM

Technical Paper Publication

*Phellip Frigeri - TechnipFMC Brazil
Benoit Riff - TechnipFMC France
Prerit Vyas - TechnipFMC USA
Guillaume Micas - TechnipFMC France
Emilie Dejesus - TechnipFMC France
Dominique Bigot - TechnipFMC France*

Understanding the Behavior of the Flexible Pipe Outer Sheath at the Expander Tip of the End-Fitting, {156759}, 8:52 AM - 9:14 AM

Technical Paper Publication

*Jarl Bertram-Jakobsen - NOV
Rafael Mattedi - NOV*

A Novel Onshore Full-Scale Lateral Buckling Test Concept: Design, Commissioning, and First Results, {156444}, 9:14 AM - 9:36 AM

Technical Paper Publication

*Sebastian Von Osmanski - NOV Subsea Production Systems
Mohammadali Eftekhari - NOV Subsea Production Systems
Mads Peter Christiansen - NOV Subsea Production Systems
Tommy Pedersen - NOV Subsea Production Systems*

An Assessment of Anti-Flip Technology for Rough Bore Flexible Piping Using CFD Modelling, {157235}, 9:36 AM - 9:58 AM

Technical Paper Publication

*Paul Emmerson - Baker Hughes
Michele Bonanni - Baker Hughes
Colin Russell - Baker Hughes
Mihaela Popescu - Frazer-Nash Consultancy
Chris Ward - Frazer-Nash Consultancy*

6/25/2025

8:30 AM to 10:00 AM - East Meeting Room 7

Chair: **Yunil Chu** -

Presentations:

An Inherent Safety-Based Framework for Enhancing Design of Multipurpose Offshore Platform Layouts, {157368}, 8:30 AM - 8:52 AM
Technical Paper Publication

Pingcheng Zhu - University of Tasmania

Til Baalisampang - University of Tasmania

Ehsan Arzaghi - Queensland University of Technology

Vikram Garaniya - RMIT

Rouzbeh Abbassi - Macquarie University

Pilot Testing of the Ocean Oasis Wave Power Driven Desalination Plant, {157442}, 8:52 AM - 9:14 AM

Technical Paper Publication

Thomas B Johannessen - Ocean Oasis AS

6/25/2025

8:30 AM to 10:00 AM - East Meeting Room 15

Chair: **Krish Thiagarajan Sharman** -

Chair: **Rodrigo Soares** -

Presentations:

Experimental Investigation of Hydrokinetic Energy Harvesting From Vortex-Induced Vibration Under Free-Stream Turbulent Flow, {156192}, 8:30 AM - 8:52 AM

Technical Paper Publication

Yan Naung Aye - Newcastle University

Narakorn Srinil - Newcastle University

Rosemary Norman - Newcastle University

Power and Efficiency of Two and Three Tandem Cylinders in Flow-Induced Oscillations: Effect of Large Passive Turbulence Stimulation and Adaptive Damping, {156380}, 8:52 AM - 9:14 AM

Technical Paper Publication

Nipit Congpuong - University of Michigan

Salman Sadiq - University of Michigan

Hai Sun - Harbin Engineering University

Michael Bernitsas - University of Michigan

Experimental Validation of a Vortex-Induced Vibrations-Based Energy Harvester With Orthotropic Bending Stiffness, {157483}, 9:14 AM - 9:36 AM

Technical Paper Publication

Leticia Madi - University of São Paulo

Guilherme Vernizzi - University of São Paulo

Wagner Defensor Filho - University of São Paulo

André Kogishi - Instituto de Pesquisas Tecnológicas do Estado de São Paulo

Celso Pesce - University of São Paulo

Modelling the Impact of Structure Generated Shadowing on Tidal Stream Turbine Performance, {157588}, 9:36 AM - 9:58 AM

Technical Paper Publication

Bryn Townley - IDCORE - Universities of Edinburgh, Strathclyde, Exeter

Qing Xiao - University of Strathclyde

Athanasios Angeloudis - University of Edinburgh

Ian Ashton - University of Exeter

George Dadd - HydroWing

6/25/2025

8:30 AM to 10:00 AM - East Meeting Room 8

Chair: **Solomon Yim** -

Presentations:

Shape Optimization of Floating Bridge pontoons With Mooring Constraints Under Wave Actions, {155157}, 8:30 AM - 8:52 AM

Technical Presentation Only

Chenyu Lu - Harbin Institute of Technology

Anxin Guo - Harbin Institute of Technology

Jiabin Liu - Harbin Institute of Technology

Jialei Yan - Harbin Institute of Technology

LES Simulation and Mathematical Analysis of Hydrodynamic Coefficients for an Autonomous Underwater Vehicle, {156040}, 8:52 AM - 9:14 AM

Technical Presentation Only

Yu-Hsien Lin - National Cheng Kung University

Shao-Yi Tang - National Cheng Kung University

An Experimental Study on the Impact Pressure Characteristics of a Symmetrical Wedge in Pure and Aerated Water Entry, {153493}, 9:14 AM - 9:36 AM

Technical Paper Publication

Wencheng Wu - Shanghai Jiao Tong University

Longfei Xiao - Shanghai Jiao Tong University

Yufeng Kou - Shanghai Jiao Tong University

Handi Wei - Shanghai Jiao Tong University

Mingyue Liu - Shanghai Jiao Tong University

Lijun Yang - Shanghai Jiao Tong University

Jun Li - Shanghai Jiao Tong University

Identification of Vertical Centre of Gravity and Ship Mass Using Phase Resolved Wave Prediction Through In-Service Onboard Measurements, {154516}, 9:36 AM - 9:58 AM

Technical Paper Publication

Malwin Wernbter - Hamburg University of Technology

Johanna Serr - Hamburg University of Technology

Moustafa Abdel-Maksoud - Hamburg University of Technology

6/25/2025

8:30 AM to 10:00 AM - East Meeting Room 10

Chair: **Solomon Yim** -

Presentations:

Long-Term Prediction of Container Ship Responses Based on Wave Forecasts, {153501}, 8:30 AM - 8:52 AM

Technical Presentation Only

Wataru Fujimoto - ClassNK

Fuminori Yanagimoto - ClassNK

Kei Sugimoto - ClassNK

Kinya Ishibashi - ClassNK

Deep Learning Joint Extremes of Metocean Variables Using the SPAR Model, {155197}, 8:52 AM - 9:14 AM

Technical Paper Publication

Edward Mackay - University of Exeter

Callum Murphy-Barltrop - Technische Universität Dresden

Jordan Richards - University of Edinburgh

Philip Jonathan - Lancaster University

Impact of Wave-Induced Drift Amplification on the Dispersal of Plastics in the Great Pacific Garbage Patch, {156573}, 9:14 AM - 9:36 AM

Technical Paper Publication

Andriarimina Rakotonirina - The Ocean Cleanup

Ivan Soares - The Ocean Cleanup

Yannick Pham - The Ocean Cleanup

Bruno Sainte-Rose - The Ocean Cleanup

A Systematic Data Preparation Approach for Analyzing Hotel Electrical Power Consumption on Passenger Ship, {156597}, 9:36 AM - 9:58 AM

Technical Paper Publication

Adanna Okonkwo - Aalto University
Mikko Suominen - Aalto University
Jani Romanoff - Aalto University
Mashrura Musharraf - Aalto University

6/25/2025

8:30 AM to 10:00 AM - East Meeting Room 6

Chair: **Mamdouh Salama - MMS4AIM LLC**

Presentations:

Assessment of Tensile Strain Capacity of Girth Welds in X70 and X100 Pipeline With Surface Cracks Under Bending, {155793}, 8:30 AM - 8:52 AM

Technical Paper Publication

Xinping Yu - Carleton University
Dong-Yeob Park - CanmetMATERIALS, Natural Resources Canada
Xin Wang - Carleton University

Investigation of Crack Tip Opening Displacement Behavior for Cryogenic Steel Considering Strength Mismatch Effects, {156327}, 8:52 AM - 9:14 AM

Technical Paper Publication

Ji Hoon Kim - Pusan National University
Young Cheon Jeong - Samsung Heavy Industries Co., Ltd
Dong Pil Cho - Samsung Heavy Industries Co., Ltd
Myung Hyun Kim - Pusan National University

Investigating Through-Thickness Crack Propagation From Local Hard Zones in TMCP Steel Exposed to Wet Sour Service, {157744}, 9:14 AM - 9:36 AM

Technical Paper Publication

Khalid Babakri - East Pipes integrated Company
Saad Al-Muaili - Saudi Aramco

Study on Fracture Prediction for Cracks Under Mode II and III Loading Combined With Mode I, {157216}, 9:36 AM - 9:58 AM

Technical Paper Publication

Takuya Akahoshi - Sojo University
Koji Azuma - Sojo University
Tsutomu Iwashita - National Institute of Technology, Ariake College

6/25/2025

8:30 AM to 10:00 AM - East Meeting Room 12

Chair: **Rajiv Aggarwal - Reliable Offshore Systems LLC**

Chair: **R. Cengiz Ertekin - Univ. of Hawaii**

Presentations:

Energy's Digital Frontier: Remote, Integrated, and Autonomous Operations for Minimally Staffed Facilities, {157938}, 8:30 AM - 8:52 AM

Technical Paper Publication

John Pretlove - ABB
Steve Royston - ABB

A Markup Language for Maritime Systems: Advancing Data Interoperability, {157479}, 8:52 AM - 9:14 AM

Technical Paper Publication

Janica A. Bronson - Norwegian University of Science and Technology - NTNU
Henrique M. Gaspar - Norwegian University of Science and Technology - NTNU
Ícaro A. Fonseca - Norwegian University of Science and Technology - NTNU

Data-Centric Approach to Design Digital Twins, {156093}, 9:14 AM - 9:36 AM

Technical Presentation Only

Gaurav Gupta - Kongsberg Digital

Neeraj Zambare - Kongsberg Digital

Optimizing Operational Efficiency: A Digital Twin Solution for Realtime Dynamic Watch Circles on Dynamically Positioned Rigs, {156456}, 9:36 AM - 9:58 AM

Technical Presentation Only

Kenneth Bhalla - Stress Engineering Services, Inc.

6/25/2025

8:30 AM to 10:00 AM - East Meeting Room 5

Chair: **Tomoki Ikoma - Nihon University**

Chair: **Daisuke Kitazawa - The University of Tokyo**

Presentations:

Investigating the Hydrodynamics of Triangular Artificial Reefs: The Impact of Structural Parameters on Flow Field Characteristics and Sediment Scouring, {157070}, 8:30 AM - 8:52 AM

Technical Paper Publication

Fenfang Zhao - Ocean University of China

Mingda Yang - Ocean University of China

Yanli Tang - Ocean University of China

Mengjie Yu - Ocean University of China

Xinxin Wang - Ocean University of China

Changdong Liu - Ocean University of China

An Ocean Model for Novel Combined Groups of Artificial Reefs With Wind Power Foundation, {157073}, 8:52 AM - 9:14 AM

Technical Paper Publication

Yujie Cui - Ocean University of China

Mingda Yang - Ocean University of China

Yanli Tang - Ocean University of China

Xinxin Wang - Fisheries College, Ocean University of China

Liuyi Huang - Fisheries College, Ocean University of China

Fenfang Zhao - Fisheries College, Ocean University of China

Local Scour Around the Offshore Perforated Cubic Artificial Reef Under Combined Wave and Current Conditions, {157076}, 9:14 AM - 9:36 AM

Technical Paper Publication

Zengqian Li - Ocean University of China

Dongya Zhang - Haixia Electricity Generation Zhangpu Co. Ltd

Minjun Yan - Haixia Electricity Generation Zhangpu Co. Ltd

Shuaishuai Zhang - Haixia Electricity Generation Zhangpu Co. Ltd

Shuangbing Li - Ocean University of China

Jiachen Quan - Ocean University of China

Mingda Yang - Ocean University of China

Fenfang Zhao - Fisheries College, Ocean University of China

6/25/2025

8:30 AM to 10:00 AM - East Meeting Room 14

Chair: **Krish Thiagarajan Sharman -**

Chair: **Zhen Gao -**

Presentations:

Damping Contributions of Semi-Taut Mooring for Floating Wind Turbines, {157369}, 8:30 AM - 8:52 AM

Technical Paper Publication

Evans Frimpong - Memorial University of Newfoundland

Kevin Pope - Memorial University of Newfoundland

Xili Duan - Memorial University of Newfoundland

On the Reduction of Design Load Cases for Fatigue Assessment of Mooring Lines for Offshore Renewable Energy Systems, {157263}, 8:52 AM - 9:14 AM

Technical Paper Publication

Ander Martinez-Perurena - Mondragon University
Eguzkiñe Martinez-Puente - Mondragon University
Iñigo Llavori - Mondragon University
Markel Penalba - Mondragon University
Gregorio Iglesias - University College Cork

Mechanical Properties of Nylon Yarn for Use in Wind Turbine Moorings at Various Water Temperatures, {157112}, 9:14 AM - 9:36 AM

Technical Paper Publication

Heidi Moe Føre - SINTEF Ocean
Stian Stensby Sørum - SINTEF Ocean
Rune Harald Gaarder - SINTEF Industry
Nuno Miquel m.d.d. Fonseca - SINTEF Ocean

Experimental Comparison of Constant Tension Mooring and Catenary Mooring System for a Semi-Submersible Floating Wind Turbine, {156277}, 9:36 AM - 9:58 AM

Technical Paper Publication

Yipin Wang - Shanghai Jiao Tong University
Kun Yu - PowerChina Hainan Renewable Energy CO., LTD.
Jinning Shen - PowerChina Hainan Renewable Energy CO., LTD.
Tiancheng Yao - Shanghai Jiao Tong University
Yuanyang Zhao - Shanghai Jiao Tong University
Yongsheng Zhao - Shanghai Jiao Tong University

6/25/2025

8:30 AM to 10:00 AM - East Meeting Room 13

Presentations:

Detection of Failed Mooring Lines of Spread-Moored FPSO Using Platform Motions and Artificial Neural Networks, {156367}, 8:30 AM - 8:52 AM

Technical Paper Publication

Omar Jebari - Florida Institute of Technology
Do-Soo Kwon - Texas A&M University
Sung-Jae Kim - National Institute of Fisheries Science
Chungkuk Jin - Florida Institute of Technology
Moohyun Kim - Texas A&M University

Experimentation and a Data-Driven Machine Learning Approach for Strength Prediction of Non-Uniformly Corroded Rebar, {156548}, 8:52 AM - 9:14 AM

Technical Paper Publication

Bing Chen - Shandong Jiaotong University
Wei Zhao - Shandong Jiaotong University
Baoqun Wang - Shandong Jiaotong University
Jie Li - Shandong Jiaotong University
Ke Sun - Shandong Jiaotong University

Using Artificial Intelligence to Analyze Incidents Involving Falling Outfitting Structures, {157080}, 9:14 AM - 9:36 AM

Technical Paper Publication

Morten Langøy - Norwegian Ocean Industry Authority
David Ross Watson - DNV
Bahram Momeni - Norwegian Ocean Industry Authority
Abdillah Suyuthi - DNV

6/25/2025

8:30 AM to 10:00 AM - East Meeting Room 17

Presentations:

The Influence of Seabed Trench on Suction Pile's Holding Capacity, {154271}, 8:30 AM - 8:52 AM

Technical Paper Publication

Jianchun Cao - Bechtel
Anil Bhandari - Bechtel
Jie Huang - University of Texas at San Antonio

Simplified Two-Spring Winkler Model for Suction Caisson Subjected to Vertical Loads in Non-Homogeneous Clays, {154991}, 8:52 AM - 9:14 AM

Technical Paper Publication

Hang Feng - The Hong Kong Polytechnic University
Zhen-Yu Yin - The Hong Kong Polytechnic University
Kewen Zhu - College of Civil Engineering and Architecture

Evaluation of Anchoring Capacity of Suction Anchors With Fins in Silt, {155322}, 9:14 AM - 9:36 AM

Technical Paper Publication

YI-HSIU LIU - Department of Engineering Science and Ocean Engineering, National Taiwan University
Amir Noorizadegan - Department of Civil Engineering, National Taiwan University
Chao-Ming Chi - Department of Civil Engineering, Feng Chia University
Kai-Tung Ma - Department of Engineering Science and Ocean Engineering

A Probabilistic Approach for Characterizing Buckling Risks in Caisson Foundations Under Suction Installation, {157004}, 9:36 AM - 9:58 AM

Technical Paper Publication

Ruizhe Xu - Tianjin University
Ruolin Yuan - Tianjin University
Shuntao Fan - Tianjin University
Yue Yan - Tianjin University
Dengfeng Fu - Ocean University of China

6/25/2025

10:30 AM to 12:00 PM - East Meeting Room 5

Chair: **Kazuhiro Iijima - The University of Osaka**

Chair: **Shinichiro Hirabayashi - The University of Tokyo**

Chair: **Tomoki Ikoma - Nihon University**

Presentations:

Hydrodynamic Friction of Rotating Cylinders With Eccentricity Using Numerical Simulation, {156195}, 10:30 AM - 10:52 AM

Technical Paper Publication

Susumu Kono - TEPCO Research Institute, Tokyo Electric Power Company Holdings, Inc.

Development and Demonstration of Motion Stabilized Platform for Offshore Wind Observations, {156919}, 10:52 AM - 11:14 AM

Technical Paper Publication

Tomoki Taniguchi - Osaka Metropolitan University
Mizuki Kinugasa - Osaka Metropolitan University
Yusuke Yamamoto - Japan Fisheries Research and Education Agency
Atsushi Katayama - LEADEDGE TECHNOLOGY Corporation
Masahiro Ozaki - EIWAT CO.LTD
Toru Katayama - Osaka Metropolitan University

Weakly Nonlinear Estimation of Hydrodynamic Forces and Motions on a Barge Type Floating Body With Moonpools in Waves, {156998}, 11:14 AM - 11:36 AM

Technical Paper Publication

Kento Suzuki - Nihon University
Tomoki Ikoma - Nihon University
Lei Tan - Nihon University
Yasuhiro Aida - Nihon University

6/25/2025

10:30 AM to 12:00 PM - East Meeting Room 18

Chair: **ergun kuru - Univ Of Alberta**

Presentations:

Numerical Simulation Study on Bubble Rising Characteristics of Acidic Multi-Component in Vertical Wellbore, {156715}, 10:30 AM - 10:52 AM

Technical Paper Publication

Yueqi Cui - China University of Petroleum (Beijing)
Mengmeng Zhou - China University of Petroleum (Beijing)
Xianzhi Song - China University of Petroleum (Beijing)
Shiming Duan - China University of Petroleum (Beijing)
Zhengming Xu - China University of Geosciences (Beijing)
Zhaopeng Zhu - China University of Petroleum (Beijing)

Hydraulics and Cuttings Transport Properties of Two Oil-Based Drilling Fluids: A Comparative Analysis, {156561}, 10:52 AM - 11:14 AM

Technical Paper Publication

Bjørnar Lund - SINTEF
Ali Taghipour - SINTEF
Blandine Feneuil - SINTEF
Arild Saasen - University of Stavanger
Jan David Ytrehus - SINTEF

Annular Displacement Flows With Rotating Inner Pipe: A Computational and Experimental Study, {156415}, 11:14 AM - 11:36 AM

Technical Presentation Only

Sophia Sotoudeh - University of British Columbia
Mahdi Izadi - The University of British Columbia
Ian A. Frigaard - The University of British Columbia

Hydraulic Forces Induced by Drillstring Whirling and Rotation Dynamics: A Numerical Investigation in 2D and 3D Domains, {156410}, 11:36 AM - 11:58 AM

Technical Paper Publication

Xu Duan - The University of Texas at Austin
Yifan Zhang - The University of Texas at Austin
Pradeepkumar Ashok - The University of Texas at Austin
Dongmei Chen - The University of Texas at Austin
Eric Van Oort - The University of Texas at Austin

6/25/2025

10:30 AM to 12:00 PM - East Meeting Room 9

Chair: Zhimin Tan - Baker Hughes

Presentations:

Analysis of Subsea Umbilical Installation Under Radial Compression and Axial Tensile Loading, {157605}, 10:30 AM - 10:52 AM

Technical Paper Publication

Ilsan Pasqualino - COPPE/UF RJ
John Chujutalli - COPPE/UF RJ
Fabio Mineiro - PETROBRAS/CENPES
William Da Silva - PETROBRAS

Rotational Translational Movement Imposition for Macroelements, {157086}, 10:52 AM - 11:14 AM

Technical Paper Publication

Rodrigo Provasi - University of São Paulo
Clovis De Arruda Martins - University of São Paulo

6/25/2025

10:30 AM to 12:00 PM - East Meeting Room 7

Chair: Yunil Chu -

Presentations:

Engineering a Swarm of Autonomous Sailboats: Design, Controls and Power Systems, {156976}, 10:30 AM - 10:52 AM

Technical Paper Publication

Arsh Anis Khan - University of California, Berkeley
Evan Kuo - University of California, Berkeley
Nick Quach Bui - UC Berkeley
Jan Dustin Tengdyantono - UC Berkeley
Reza Alam - University of California, Berkeley

Machine Learning-Augmented Multi-Criteria Decision Analysis for Optimizing The Decommissioning of Subsea Assets, {157462}, 10:52 AM - 11:14 AM

Technical Paper Publication

Jean-David Caprace - Federal University of Rio de Janeiro (UFRJ)
Carlos Eduardo Durange De Carvalho Infante - Juiz de Fora Federal University (UFESJ)
Claudio Violante Ferreira - Petrobras
Eduardo Ribeiro Nicolosi - Petrobras
Marcelo Igor Lourenço De Souza - Federal University of Rio de Janeiro (UFRJ)

Port Strategy Analysis for Offshore Wind Farm Construction in the Bass Strait Region, Australia, {156664}, 11:14 AM - 11:36 AM

Technical Paper Publication

Peggy Shu-Ling Chen - University of Tasmania
Stephen Cahoon - University of Tasmania
Hongjun Fan - University of Tasmania
Mark Cooper - Tasmanian Ports Corporation
Marcus Haward - Blue Economy Cooperative Research Centre

6/25/2025

10:30 AM to 12:00 PM - East Meeting Room 16

Chair: **Owen Oakley - Retired**

Presentations:

A Physics-Informed Machine Learning Framework Combined With a Reduced Order Model for Efficient Prediction of Unsteady Vortex Shedding, {156964}, 10:30 AM - 10:52 AM

Technical Paper Publication

Guang Yin - University of Stavanger
Muk Chen Ong - University of Stavanger

The Development of Physical Informed Neural Networks for Fluid Flow in Infinite Parallel Plates As Compared to CFD and AI Models, {157713}, 10:52 AM - 11:14 AM

Technical Paper Publication

Alaaeddin Elhemmati - Memorial University of Newfoundland
Mohammad Mojamal Huque - Memorial University of Newfoundland
Syed Intiaz - Memorial University
Mohammad Azizur-Rahman - College of Science and Engineering (CSE), Hamad Bin Khalifa University (HBKU),
Salim Ahmed - Memorial University of Newfoundland

A Data Assimilation and Machine Learning Coupled Method for Improving Forecast Accuracy With Limited Ensemble Size, {157357}, 11:14 AM - 11:36 AM

Technical Paper Publication

Zhilin Li - University of Macau
Xianglong Li - Tianjin University
Changhao Tang - Tianjin University
Guangyao Wang - University of Macau

Data-Driven Differentiable Simulations for Three-Dimensional Range-Dependent Underwater Acoustics, {157418}, 11:36 AM - 11:58 AM

Technical Paper Publication

Indu Kant Deo - UBC
Akash Venkateshwaran - UBC
Rajeev Jaiman - UBC

6/25/2025

10:30 AM to 12:00 PM - East Meeting Room 15

Chair: **Krish Thiagarajan Sharman** -

Chair: **Yi-Hsiang Yu** -

Presentations:

Survey and Comparisons of Innovative Alternate Concepts for Offshore Renewable Energy, {154768}, 10:30 AM - 10:52 AM

Technical Paper Publication

Mithra Sankrithi - RIC Enterprises

Asha Wojciechowski - Monta Vista High School

The Influence of Oscillating Water Columns on the Stability and Hydrodynamics of Floating Offshore Wind Platform, {156563}, 10:52 AM - 11:14 AM

Technical Paper Publication

Gabriel Siqueira Machado - Universidade Federal do Rio de Janeiro

Giuseppe Giorgi - Politecnico di Torino

Milad Shadman - Universidade Federal do Rio de Janeiro

Carlos Antonio Levi Da Conceição - Universidade Federal do Rio de Janeiro

Segen Farid Estefen - Universidade Federal do Rio de Janeiro

Wave Power Extraction From Semi-Submersible Hybrid Platforms With Multi-Physics and High-Fidelity Simulations Powered by SPH, {156719}, 11:14 AM - 11:36 AM

Technical Paper Publication

Bonaventura Tagliafierro - Uppsala University

Iván Martínez-Estévez - Universidade de Vigo

Salvatore Capasso - University of Salerno

José M. Domínguez - Universidade de Vigo

Madjid Karimirad - Queen's University Belfast

Giacomo Viccione - University of Salerno

Moncho Gómez-Gesteira - Universidade de Vigo

Alejandro j.c. Crespo - Universidade de Vigo

Malin Göteman - Uppsala University

Complementarity of Brazil's Ocean Thermal Gradient Energy and Offshore Wind Power, {157328}, 11:36 AM - 11:58 AM

Technical Paper Publication

Daniela Corrêa - Federal University of Rio de Janeiro

Mohsen Alaeian - Federal University of Rio de Janeiro

Jeferson Osmar - Federal University of Rio de Janeiro

Daniel Fonseca De Carvalho E Silva - Petrobras

Milad Shadman - Federal University of Rio de Janeiro

Segen Estefen Farid - Federal University of Rio de Janeiro

6/25/2025

10:30 AM to 12:00 PM - East Meeting Room 8

Chair: **Solomon Yim** -

Presentations:

Statistical ULS Evaluation of Tension Leg Slackline for Lightweight TLP Platforms in Unidirectional Long Crest Wave Using Linear and Second-Order Potential Flow Solvers, {155338}, 10:30 AM - 10:52 AM

Technical Paper Publication

Arash Abbasnia - University of Rostock

Sascha Kosleck - University of Rostock

Hauke Hartmann - GICON®-Großmann Ingenieur Consult GmbH

Frank Adam - GICON®-Großmann Ingenieur Consult GmbH

Influence of Water Pressure on Bubble Induced Friction Drag Reduction, {155956}, 10:52 AM - 11:14 AM

Technical Paper Publication

Chang-Hyeon Kim - Hyundai Maritime Research Institute

Ji-Won Choi - Hyundai Maritime Research Institute

Jung-Il Kwon - Hyundai Maritime Research Institute

Hyeong-Jun Kim - Hyundai Maritime Research Institute

Sang-Hyeon Kim - Hyundai Maritime Research Institute

Hong-Gu Yeo - Hyundai Maritime Research Institute

Time Domain Coupling Numerical Investigation on Motion and Green Water Load of a Semi-Submersible Platform, {156357}, 11:14 AM - 11:36 AM

Technical Paper Publication

*Rui Qin - Shanghai Jiao Tong University
Haining Lu - Shanghai Jiao Tong University
Jianmin Yang - Shanghai Jiao Tong University
Longfei Xiao - Shanghai Jiao Tong University*

Wave Transmission Comparative Assessment of Three-Dimensional Single and Multi-Floating Breakwaters Systems, {156397}, 11:36 AM - 11:58 AM

Technical Paper Publication

*Emerson Andrade - UFRJ
Daniel Costa - UFRJ
Antonio Fernandes - UFRJ
Joel Sales Junior - UFRJ*

6/25/2025

10:30 AM to 12:00 PM - East Meeting Room 10

Chair: **Solomon Yim -**

Presentations:

Enhancing Wave Prediction Using Machine Learning: Modelling Nonlinear Components in 3D Wave Buoy Motion, {156700}, 10:30 AM - 10:52 AM

Technical Paper Publication

*Yue Ding - The University of Western Australia
Yunzhuo Chen - The University of Western Australia
Paul Taylor - The University of Western Australia
Wenhua Zhao - The University of Western Australia*

Accurate Spatio-Temporal Measurements of Extreme Waves Using LiDAR in the Laboratory, {156743}, 10:52 AM - 11:14 AM

Technical Paper Publication

*Julie Caroe Kristoffersen - Aarhus University
Thomas Kabel Pedersen - Aarhus University
Christos Georgakis - Aarhus University
Ioannis Karpadakis - Imperial College, London*

Laboratory Simulation and Monitoring Analysis of Wind Characteristics of Atmospheric Vortices on Water Surfaces, {158295}, 11:14 AM - 11:36 AM

Technical Paper Publication

*Jianhong Wang - Nanjing University of Information Science & Technology
Floribert Vuguziga - College of Atmosphere Science
Gang Liu - Nanjing University of Information Science & Technology
Changming Dong - Nanjing University of Information Science & Technology
Xinyi Cao - Nanjing University of Information Science & Technology
Yang Chen - Nanjing University of Information Science & Technology
Chao Li - Nanjing University of Information Science & Technology
Yian Sun - Nanjing University of Information Science & Technology*

6/25/2025

10:30 AM to 12:00 PM - East Meeting Room 6

Chair: **Mamdouh Salama - MMS4AIM LLC**

Presentations:

Microstructure and Effect of Orientation on Toughness of X65 Steel Pipe Electric Resistance Seam Weld, {156124}, 10:30 AM - 10:52 AM

Technical Paper Publication

*Tirdad Niknejad - CanmetMATERIALS (CMAT) / Natural Resources Canada / Government of Canada
Cheng Qian - CanmetMATERIALS (CMAT) / Natural Resources Canada / Government of Canada*

Bill Tyson - CanmetMATERIALS (CMAT) / Natural Resources Canada / Government of Canada
Su Xu - CanmetMATERIALS (CMAT) / Natural Resources Canada / Government of Canada

Influence of Hydrogen on Overload-Affected Fatigue Crack Growth in Pipeline Steels, {157508}, 10:52 AM - 11:14 AM

Technical Paper Publication

Leonardo Giannini - NTNU
Hisao Matsunaga - Kyushu University
Sungcheol Park - Kyushu University
Shogo Tanaka - Kyushu University
Antonio Alvaro - SINTEF Industry

Burst Pressure Prediction of Defective Pipeline Test Spools by Metal Magnetic Memory Method, {155604}, 11:14 AM - 11:36 AM

Technical Paper Publication

Choong Meng Lam - PETRONAS Carigali Sdn Bhd
Sheng Bao - Zhejiang University
Muhammad Ashri Mustapha - Transkor Technology Services Sdn Bhd
Patricia Liew Fung Mee - PETRONAS Carigali Sabah Asset

Fit for Purpose and Inspection of Subsea Equipment Dissimilar Welds, {157504}, 11:36 AM - 11:58 AM

Technical Paper Publication

Petronio Zumpano Jr - Petrobras
Milton Santos - Petrobras
Daniel Correia Freire Ferreira - Petrobras

6/25/2025

10:30 AM to 12:00 PM - East Meeting Room 12

Chair: **Allan R Magee - NU Singapore**

Chair: **R. Cengiz Ertekin - Univ. of Hawaii**

Presentations:

Mooring Spread Design Challenges for Stalk-On Riser Installations in Congested Offshore Fields, {156267}, 10:30 AM - 10:52 AM

Technical Paper Publication

Toms Jacob - MCDERMOTT
Mashood Munaz Kalathingal - MCDERMOTT
Vijoy Koottungal - MCDERMOTT

Automation and Optimization of Mooring Line Designs, {156359}, 10:52 AM - 11:14 AM

Technical Paper Publication

Hamid Shayanfar - Global Maritime
Anskey Miranda - Global Maritime
Ronald Haynes - Memorial University of Newfoundland
Kevin Doyle - Global Maritime

6/25/2025

10:30 AM to 12:00 PM - East Meeting Room 14

Chair: **Krish Thiagarajan Sharman -**

Chair: **Ajit Pillai -**

Presentations:

A Reference Tension-Leg Platform for a 15-MW Floating Wind Turbine, {157544}, 10:30 AM - 10:52 AM

Technical Paper Publication

Matthew Hall - NREL
Stein Housner - National Renewable Energy Laboratory
Lucas Carmo - National Renewable Energy Laboratory

Global Performance of Tension Leg Floating Offshore Wind Turbine Based on Quasi-Dynamic Method and LSTM Method, {157138}, 10:52 AM - 11:14 AM

Technical Paper Publication

Wei Huang - School of Civil Engineering, Sun Yat-sen University
Binbin Li - Tsinghua Shenzhen International Graduate School

Balancing Fidelity and Computational Efficiency in Mooring System Simulations for Floating Offshore Wind Turbines, {155460}, 11:14 AM - 11:36 AM

Technical Paper Publication

Jonathan Glasspool - The University of Edinburgh
Tiago Duarte - Ocean Winds
Julia Race - University of Strathclyde
Vengatesan Venugopal - The University of Edinburgh
Ajit C Pillai - University of Exeter

Validation of a Truss Finite Element for Mooring Applications via Code-to-Code Comparisons, {155124}, 11:36 AM - 11:58 AM

Technical Paper Publication

Aengus Connolly - Wood
Donogh Lang - Wood
Oisin Conway - Wood

6/25/2025

10:30 AM to 12:00 PM - East Meeting Room 13

Presentations:

Structural Health Monitoring of High-Speed Crafts: Phase I Development of Solution via Digital Twinning, {157020}, 10:30 AM - 10:52 AM

Technical Paper Publication

Zhiping Cheng - TCOMS
Chuan Wei Louis Tan - ST Engineering Marine Ltd.
Jing Liu - TCOMS
Minbo Cai - TCOMS
Yingying Chen - Singapore
Mathai Pathrose - ST Engineering Marine Ltd.

Predictive Health Analysis for Future Maintenance Planning in Aging Containership Hull Structures Within Digital Healthcare Engineering Systems, {157144}, 10:52 AM - 11:14 AM

Technical Paper Publication

Hyeong Jin Kim - University College London
Yuheng Xie - University College London
Jeom Kee Paik - University College London

Utilizing an Acceleration-Strain Transmissibility Relationship for the Prediction of Midship Strain on a Polar Vessel, {157234}, 11:14 AM - 11:36 AM

Technical Paper Publication

Gerhard Durandt - Stellenbosch University
Anriette Bekker - Stellenbosch University

Comparative Analysis of Machine Learning Methods for Predicting Structural Responses in Ship Hull Monitoring, {157346}, 11:36 AM - 11:58 AM

Technical Paper Publication

Simon Haberl - German Aerospace Center
Moritz Braun - German Aerospace Center
Sören Ehlers - German Aerospace Center

6/25/2025

10:30 AM to 12:00 PM - East Meeting Room 17

Presentations:

A Hybrid Wavelet-Deep Learning Approach for Vibration-Based Damage Detection in Monopile Offshore Structures Considering Soil Interaction, {158564}, 10:30 AM - 10:52 AM

Technical Presentation Only

Weiqliang FENG - Southern University of Science and Technology
De-Jie Song - Southern University of Science and Technology

An Electrokinetic Approach for Reducing Spudcan Base Suction, {155384}, 10:52 AM - 11:14 AM

Technical Paper Publication

Yuri Sugiyama - National Institute of Maritime, Port and Aviation Technology Port and Airport Research Institute
Nagata Hashimoto - Tokyo University of Science
Daiki Takano - Kumamoto University
Shazzad Hossain Muhammad - The University of Western Australia

Transfer Learning Enhanced Composite Physics-Informed Neural Network : Application to Offshore Geotechnical Experiments, {157032}, 11:14 AM - 11:36 AM

Technical Paper Publication

Kailin Ding - Southern University of Science and Technology
Yong Fu - Southern University of Science and Technology
Min-Hao Zhang - Southern University of Science and Technology

6/25/2025

1:30 PM to 3:00 PM - East Meeting Room 16

Chair: **Owen Oakley - Retired**

Chair: **Bayard Holmes - Red Wing Engineering**

Chair: **Tim Bunnik - MARIN**

Chair: **Stephen Cosgrove - Altair**

Chair: **Yadong Zeng - Altair**

Chair: **Celso Pesce - USP**

Presentations:

Parallel Ships Maneuvering Control Based on Deep Reinforcement Learning, {157274}, 1:30 PM - 1:52 PM

Technical Paper Publication

Donglin Liu - Huazhong University of Science and Technology
Guohua Dong - Huazhong University of Science and Technology
Chaobang Yao - Huazhong University of Science and Technology
Yihan Zhang - Marine Design and Research Institute of China
Dakui Feng - Huazhong University of Science and Technology

A Novel Ship Design Optimization Framework Using Fine-Tuned and Reward-Directed Diffusion Model, {157449}, 1:52 PM - 2:14 PM

Technical Paper Publication

Hadi Keramati - University of British Columbia
Patrick Kirchen - THE UNIVERSITY OF BRITISH COLUMBIA
Rajeev Jaiman - The University of British Columbia

Active Flow Control Strategies Based on Deep Reinforcement Learning, {156883}, 2:14 PM - 2:36 PM

Technical Paper Publication

Wang Jia - School of Ocean and Civil Engineering, Shanghai Jiao Tong University
Hang Xu - School of Ocean and Civil Engineering, Shanghai Jiao Tong University

6/25/2025

1:30 PM to 3:00 PM - East Meeting Room 19

Chair: **ergun kuru - Univ Of Alberta**

Presentations:

Assessing the Feasibility of Geothermal Energy Extraction From Depleted Oil and Gas Wells in British Columbia, {156514}, 1:30 PM - 1:52 PM

Technical Presentation Only

Soheil Akbari - University of British Columbia
Ian A. Frigaard - University of British Columbia

Techno-Economic Analysis of Geothermal Well Designs: Slim and Standard Hole Well Construction, {157109}, 1:52 PM - 2:14 PM

Technical Paper Publication

Elvin Allahverdiyev - University of Oklahoma

Khizar Abid - University of Oklahoma

Catalin Teodoriu - University of Oklahoma

Active Magnetic Ranging From Drill String for Geothermal Systems, {157305}, 2:14 PM - 2:36 PM

Technical Paper Publication

Karsten Husby - SINTEF

Jan David Ytrehus - SINTEF

Magnus Hjelstuen - SINTEF

Arild Saasen - University of Stavanger

Tor Jan Eriksen - Well Intercept AS

Geothermal Energy Production in Venezuela: Challenges and Opportunities, {157818}, 2:36 PM - 2:58 PM

Technical Paper Publication

Fernancelys Rodriguez - Consultant

Raifel Morales - PDVSA Petro San Felix

Fausto Posso Rivera - Universidad de Santander

Hadi Belhaj - Khalifa University of Science and Technology

Iván Olaya López - Universidad de Santander

Ahmed Belhaj - University of Calgary

6/25/2025

1:30 PM to 3:00 PM - East Meeting Room 18

Chair: **ergun kuru - Univ Of Alberta**

Presentations:

Design and Development of a Composite Tube With Embedded Distributed Fibre Optic (DFO) Sensing, {156156}, 1:30 PM - 1:52 PM

Technical Paper Publication

Kumar Roy - Curtin University

Mofazzal Hossain - Curtin University

Christopher Lagat - Curtin University

Brian Evans - Curtin University

Study on the Influence of Structural Parameters of Deflector on the Force and Deformation of Metal Pipe in Radial Jet Drilling, {156345},

1:52 PM - 2:14 PM

Technical Paper Publication

Kang Cheng - China University of Petroleum (Beijing)

Zhongwei Huang - China University of Petroleum (Beijing)

Jingru Hu - China University of Petroleum (Beijing)

Jingbin Li - China University of Petroleum (Beijing)

Huan Li - China University of Petroleum (Beijing)

Rui Li - China University of Petroleum (Beijing)

Laboratory Study on the Efficiency of Disc Cutter Drilling With the Integration of a Vibration-Assisted Rotary Drilling (PVARD) Tool,

{156638}, 2:14 PM - 2:36 PM

Technical Paper Publication

Abourawi Alwaar - Memorial University of Newfoundland

Ibrahim Futeiz - Memorial University of Newfoundland

Abdelsalam Abugharara - Memorial university

Stephen Butt - Memorial university

Wear Estimation Technique for Poly-Crystalline Diamond Compact (PDC) Bits Under Lab and Field Conditions, {157503}, 2:36 PM - 2:58 PM

Technical Paper Publication

Pushpinder Rana - Memorial University of Newfoundland and Labrador

John Molgaard - Memorial University of Newfoundland and Labrador

Stephen Butt - Memorial University of Newfoundland and Labrador

6/25/2025

1:30 PM to 3:00 PM - East Meeting Room 7

Chair: **Yunil Chu** -

Presentations:

Blue Economy Crc Hydrogen Microgrid Demonstration Project, {157764}, 1:30 PM - 1:52 PM

Technical Presentation Only

Irene Penesis - Blue Economy CRC

Evan Gray - Griffith University

Numerical and Experimental Investigation of Float Shape Effects on the Performance of a Model of the M4 Wave Energy Converter, {155664}, 1:52 PM - 2:14 PM

Technical Paper Publication

Reza Abbasi - The University of Queensland

Tom Baldock - The university of Queensland

Energy Flow Modelling of Co-Located Wave Energy and Offshore Aquaculture Platforms Using System Dynamics, {156408}, 2:14 PM - 2:36 PM

Technical Paper Publication

Minghan Bao - Macquarie University

Ehsan Arzaghi - Queensland University of Technology

Fatemeh Salehi - Macquarie University

Mohsen Asadnia - Macquarie University

Rouzbeh Abbassi - Macquarie University

Wave Energy Converter Buoy for Arctic Observations, {156853}, 2:36 PM - 2:58 PM

Technical Presentation Only

Ruth Branch - Pacific Northwest National Laboratory

James Mcvey - Pacific Northwest National Laboratory

Fadia Ticono Rollano - Pacific Northwest National Laboratory

Robert Cavagnaro - Pacific Northwest National Laboratory

Alex Turpin - Pacific Northwest National Laboratory

Emma Geon - Pacific Northwest National Laboratory

6/25/2025

1:30 PM to 3:00 PM - East Meeting Room 15

Chair: **Krish Thiagarajan Sharman** -

Chair: **Yi-Hsiang Yu** -

Presentations:

Beyond Wave Energy: Applications of the WEC-SIM Open-Source Software, {157631}, 1:30 PM - 1:52 PM

Technical Paper Publication

Kelley Ruehl - Sandia National Laboratories

Jeff Grasberger - Sandia National Laboratories

Dominic Forbush - Sandia National Laboratories

Adam Keester - Sandia National Laboratories

Jorge Andres Leon-Quiroga - Sandia National Laboratories

Mohamed Shabara - National Renewable Energy Laboratory

Salman Husain - National Renewable Energy Laboratory

David Ogden - Velocity Global

Sensitivity Analysis of a Floating Hybrid Wind-Wave System to Wave Energy Converter Parameters, {157561}, 1:52 PM - 2:14 PM

Technical Paper Publication

Nataliia Sergiienko - University of Adelaide

Leandro Souza Pinheiro Da Silva - Delmar Systems

Integrated Offshore Wind and Wave Energy: Dynamic Interactions and Economic Potential of Hybrid Systems, {156296}, 2:14 PM - 2:36 PM

Technical Paper Publication

Alaa Ahmed - Cornell University

Maha Haji - Cornell University

Experimental Assessment of a Roll-Based Wave Energy Converter, {156292}, 2:36 PM - 2:58 PM

Technical Paper Publication

Ruben Paredes - ESPOL Polytechnic University, Escuela Superior Politécnica del Litoral, ESPOL

David Plaza - Stevens Institute of Technology

Mijail Arias-Hidalgo - ESPOL Polytechnic University

Jose R. Marin-Lopez - ESPOL Polytechnic University

Raju Datla - Stevens Institute of Technology

Muhammad Hajj - Stevens Institute of Technology

6/25/2025

1:30 PM to 3:00 PM - East Meeting Room 8

Chair: **Solomon Yim** -

Presentations:

Mooring Force Coefficients for First Order Motions of Floating Bodies, {156604}, 1:30 PM - 1:52 PM

Technical Paper Publication

Carlos Chads - Petrobras

Hydrodynamic Forces on a Jacket Based on 3d Focused Wave Simulated With OceanWave3D, {156729}, 1:52 PM - 2:14 PM

Technical Paper Publication

Min Gao - School of Earth and Oceans, University of Western Australia

Paul Taylor - School of Earth and Oceans, University of Western Australia

Hugh Wolgamot - School of Earth and Oceans, University of Western Australia

The Influence of Guide Vanes on Flow Characteristics in the O-Tube, {157179}, 2:14 PM - 2:36 PM

Technical Paper Publication

Mengyao Guan - South China University of Technology

Zhongbing Zhou - Guangdong Ocean University

Yunfei Teng - Dalian University of Technology

Liang Cheng - South China University of Technology

Yan Qu - South China University of Technology

The Generation of Nonlinear Short-Crested Ocean Waves From High Order Spectral Method in a Computational Fluid Dynamics Solver, {157309}, 2:36 PM - 2:58 PM

Technical Paper Publication

Matthieu Tierno - LHEEA - Centrale Nantes

Young-Myung Choi - Dept. of Naval Arch. & Ocean Eng., Pusan National University, Busan, Republic of Korea

Théo Descamps - Bureau Veritas Solutions Marine et Offshore

Moran Charlou - LHEEA - Centrale Nantes

Benjamin Bouscasse - LHEEA - Centrale Nantes

Guillaume Ducrozet - LHEEA - Centrale Nantes

6/25/2025

1:30 PM to 3:00 PM - East Meeting Room 10

Chair: **Solomon Yim** -

Presentations:

Study on the Structural Design of Floating Offshore Wind Turbines Considering Accidental Limit States, {157190}, 1:30 PM - 1:52 PM

Technical Presentation Only

Young Jae Yu - UlsanLab Inc.

Sang-Hyun Park - UlsanLab Inc.

Sang-Rai Cho - UlsanLab Inc.

Study on Cantilever Beam Installation Technology of Jack-Up, {156097}, 1:52 PM - 2:14 PM

Technical Paper Publication

Hankun Yang - Shanghai Waigaoqiao Shipbuilding Co. Ltd.

Chao Wang - Shanghai Waigaoqiao Shipbuilding Co. Ltd.

Bo Zhou - Shanghai Waigaoqiao Shipbuilding Co. Ltd.
Yuchun Du - Shanghai Waigaoqiao Shipbuilding Co. Ltd.
Yan Yin - Shanghai Waigaoqiao Shipbuilding Co. Ltd.
Chunhui Li - Shanghai Waigaoqiao Shipbuilding Co. Ltd.

Direct OPB Fatigue Calculation Method From Floater Motion, {156240}, 2:14 PM - 2:36 PM

Technical Paper Publication

Yoshitaka Mizushima - The University of Tokyo
Yuya Higuchi - ClassNK
Fuminori Yanagimoto - ClassNK
Mayuko Takaoka - The University of Tokyo
Ryota Wada - The University of Tokyo

Subdivision Optimization Design of Jack-Up Rig Based on Damage Stability Analysis, {156402}, 2:36 PM - 2:58 PM

Technical Paper Publication

Yuchun Du - Shanghai Waigaoqiao Shipbuilding Co. Ltd.
Hongtao Yuan - Shanghai Waigaoqiao Shipbuilding Co. Ltd.
Hankun Yang - Shanghai Waigaoqiao Shipbuilding Co. Ltd.
Bo Zhou - Shanghai Waigaoqiao Shipbuilding Co. Ltd.
Chunhui Li - Shanghai Waigaoqiao Shipbuilding Co. Ltd.
Qian Zhang - Shanghai Waigaoqiao Shipbuilding Co. Ltd.

6/25/2025

1:30 PM to 3:00 PM - East Meeting Room 6

Chair: **Mamdouh Salama - MMS4AIM LLC**

Presentations:

Fatigue Design Guidance for Risers in Sour Service via Full Scale Testing, {156340}, 1:30 PM - 1:52 PM

Technical Paper Publication

Carol Johnston - TWI Ltd

Alternative Alloys for Mechanically Lined Pipes: Material Performance, Weldability and Inspection Requirements for Subsea Systems, {157514}, 1:52 PM - 2:14 PM

Technical Paper Publication

Petronio Zumpano Junior - Petrobras
Bruno Diehl Neto - Petrobras
Eduardo Hippert Jr - Petrobras
Alexandre Galiani Garmbis - Petrobras
Bruno Rocha Marques Da Cunha - Petrobras

Coherent Sour Toughness Testing Across NACE Regions: Data Analysis Across Multiple Projects, Sources, and Environments With Guidance to Consistently Measure Meaningful Lower Bound Toughness Results, {152771}, 2:14 PM - 2:36 PM

Technical Paper Publication

Justin Crapps - ExxonMobil
Greger Pioszak - ExxonMobil
Rajil Saraswat - ExxonMobil
David Baker - ExxonMobil

Full-Scale Testing of Large Diameter Line Pipe Materials in Extreme Sour Service: Test System Development and Demonstration Testing, {157471}, 2:36 PM - 2:58 PM

Technical Presentation Only

Mark Cuglietta - C-FER Technologies

6/25/2025

1:30 PM to 3:00 PM - East Meeting Room 14

Chair: **Krish Thiagarajan Sharman -**

Presentations:

Reduction of Total Installation Time for Floating Offshore Wind Farms by Improving Actual Unit-Installation Time and Optimizing Operation Windows, {155231}, 1:30 PM - 1:52 PM

Technical Paper Publication

Tomohiro Hasumi - National Maritime Research Institute

Takeshi Yokoi - National Maritime Research Institute

Ken Haneda - National Maritime Research Institute

Toshiki Chujo - National Maritime Research Institute

Toshifumi Fujiwara - National Maritime Research Institute

A Framework for Reducing O&M Costs at Offshore Wind Farms, {156283}, 1:52 PM - 2:14 PM

Technical Paper Publication

Demitri Moros - IDCORE & EDF UK

Ian Ashton - University of Exeter

Nassif Berrabah - EDF UK

Iraklis Lazakis - University of Strathclyde

Kit Searle - University of Edinburgh

Calculating and Testing the Stability of an Air-Cushioned Floating Suction Pile Foundation, {157314}, 2:14 PM - 2:36 PM

Technical Paper Publication

Rob Mulders - MARIN

Jaap De Wilde - MARIN

Marcel Pietersma - MARIN

Erik Ter Horst - DEME SPT Offshore

Challenges in Shared Anchor Concept for Deep Water Floating Offshore Wind Turbines, {157496}, 2:36 PM - 2:58 PM

Technical Paper Publication

Krishnaveni Balakrishnan - EDF Renewables

Edmund Muehlner - EDF Renewables

Florent De Ligny - EDF Renewables

Francis Ferro - EDF Renewables

6/25/2025

1:30 PM to 3:00 PM - East Meeting Room 12

Chair: **R. Cengiz Ertekin - Univ. of Hawaii**

Chair: **Masoud Hayatdavoodi - University of Dundee**

Presentations:

A Numerical Investigation of the Impact of Waves on a Large Floating Wind Farm in Northwest Atlantic, {155486}, 1:30 PM - 1:52 PM

Technical Paper Publication

Jahrul Alam - Memorial University of Newfoundland

Wake Dynamics and Vortex Interaction Around Tripile Foundations for Offshore Wind Turbines, {156952}, 1:52 PM - 2:14 PM

Technical Paper Publication

Saroj Gautam - Memorial University of Newfoundland

Kevin Pope - Memorial University of Newfoundland

Baafour Nyantekyi-Kwakye - Dalhousie University

6/25/2025

1:30 PM to 3:00 PM - East Meeting Room 5

Chair: **Shigeru Tabeta - University of Tokyo**

Chair: **Tomoki Ikoma - Nihon University**

Presentations:

"Universal Block Floating System" for Ocean Space Utilization Including Architectural Applications, {155229}, 1:30 PM - 1:52 PM

Technical Paper Publication

Sayo Shiota - SHIMIZU CORPORATION

Tomomi Kanemitsu - SHIMIZU CORPORATION

Go Oishi - SHIMIZU CORPORATION
Hiromitsu Kawaguchi - SHIMIZU CORPORATION

Numerical Investigation of Wave-Induced Damping and Dynamic Response of Artificial Mangrove Roots, {156186}, 1:52 PM - 2:14 PM
Technical Paper Publication

Yan Naung Aye - Newcastle University
Narakorn Srinil - Newcastle University
Butsawan Bidorn - Chulalongkorn University
Thanawatth Sattabongkot - Chulalongkorn University
Warit Charoenlerkthawin - Chulalongkorn University

Research on Evaluation of Separating Characteristics of "Universal Block Floating System", {156660}, 2:14 PM - 2:36 PM
Technical Paper Publication

Hiromitsu Kawaguchi - Shimizu Corporation
Tomomi Kanemitsu - Shimizu Corporation
Go Oishi - Shimizu Corporation
Sayo Shiota - Shimizu Corporation

6/25/2025

1:30 PM to 3:00 PM - East Meeting Room 13

Presentations:

A Cost-Effective Computational Approach to Integrate Offshore Inspections Planning and Routing Vessels, {153397}, 1:30 PM - 1:52 PM
Technical Paper Publication

Rodrigo Menas Tamasi - São Paulo State University (UNESP), School of Sciences, Bauru
André Luis Debiasio Rossi - São Paulo State University (Unesp), Campus of Itapeva
Gabriel Silva Malta - Naval Architecture and Ocean Engineering Department, University of São Paulo (USP)
Adriana Miralles Schleder - Naval Architecture and Ocean Engineering Department, University of São Paulo (USP)
Leonardo Oliveira De Barros - Research and Development Center of Petrobras CENPES, Petrobras
Rene Thiago Capelari Orlowski - Research and Development Center of Petrobras CENPES, Petrobras
André Bergsten Mendes - Naval Architecture and Ocean Engineering Department, University of São Paulo (USP)
Marcelo Ramos Martins - Naval Architecture and Ocean Engineering Department, University of São Paulo (USP)

Anomaly Detection in Unattended Machinery Plant Using an Bi-LSTM-DVAE Approach, {157386}, 1:52 PM - 2:14 PM
Technical Paper Publication

Ahmad Bahootoroody - Aalto University
Mohammad Mahdi Abaei - Mott Macdonald
Mingyang Zhang - Aalto University
Victor Bolbot - Aalto University
Mahsa Khorasani - Aalto University

Decision-Making Approach to Support the Selection of Remotely Operated Inspection Methods of FPSO Tanks, {157625}, 2:14 PM - 2:36 PM

Technical Paper Publication

Renan Favarão Da Silva - Escola Politécnica - University of São Paulo
Gilberto Francisco Martha De Souza - University of São Paulo
Marjorie Maria Bellinello - Universidade Tecnológica Federal do Paraná, Campus Curitiba.
Adherbal Caminada Netto - Escola Politécnica - Universidade de São Paulo

Experiences With Duplex Stainless Steels in Offshore Grating Systems, {156601}, 2:36 PM - 2:58 PM
Technical Paper Publication

Rodrigo Signorelli - Outokumpu
Peder Claesson - Outokumpu
Mikko Palosaari Palosaari - Outokumpu
Edwin Maalderink - Outokumpu

6/25/2025

1:30 PM to 3:00 PM - East Meeting Room 9

Presentations:

Novel Distortional Hardening Based Strength Prediction of Api Line Pipes at Elevated-Temperature, {156017}, 1:30 PM - 1:52 PM
Technical Presentation Only
Seungwoo Kim - Seoul National University
Seonghwan Choi - Seoul National University
Soo-Chang Kang - POSCO Steel Solution Research Laboratory
Myoung-Gyu Lee - Seoul National University

Liner Wrinkling and Buckling Due to Cyclic Reeling of Lined Pipe, {157492}, 1:52 PM - 2:14 PM
Technical Presentation Only
Stelios Kyriakides - The University of Texas at Austin
Emile Naous - The University of Texas at Austin

Adhesive-Reinforced Mechanically Lined Pipe Response Under Bending and Internal Pressure, {156498}, 2:14 PM - 2:36 PM
Technical Paper Publication
Marcelo Caire - COPPE / Universidade Federal do Rio de Janeiro
Jing Fang - COPPE / Universidade Federal do Rio de Janeiro
Irving David Hernández Fontes - COPPE / Universidade Federal do Rio de Janeiro
Murilo Augusto Vaz - COPPE / Universidade Federal do Rio de Janeiro
Xuefeng Hu - CNOOC

Numerical Study on Contact Pressure in Mechanically Lined Pipe Fabrication With Imperfection, {157775}, 2:36 PM - 2:58 PM
Technical Paper Publication
Rongzhi Wei - Federal University of Rio de Janeiro
Murilo Augusto Vaz - Federal University of Rio de Janeiro
Xuefeng Hu - CNOOC PETROLEUM BRASIL LTDA

6/25/2025

3:30 PM to 5:00 PM - East Meeting Room 16

Chair: **Owen Oakley - Retired**

Chair: **Celso Pesce - USP**

Presentations:

Algorithm Analysis on Rotating Machine Fault Diagnosis Using Explainable Deep Learning, {157153}, 3:30 PM - 3:52 PM
Technical Presentation Only
Seong Hyeon Kim - Chungnam National University
Sun Je Kim - Chungnam National University
Se Hyeon Jeong - Chungnam national university
Hyun Min Song - Chungnam national university
Won Joon Lee - Hanhwa Ocean Co. LTD, Seoul, Korea

Ai Driven Reliability and Production Optimization in Offshore Canada, {157601}, 3:52 PM - 4:14 PM
Technical Presentation Only
Eric Smith - C3.ai
Stephen Warner - C3.ai

6/25/2025

3:30 PM to 5:00 PM - East Meeting Room 19

Chair: **ergun kuru - Univ Of Alberta**

Presentations:

Study of the Reduction of Vertical Oscillations of a Floating Structure, {155240}, 3:30 PM - 3:52 PM
Technical Paper Publication
Caio Cesar De Oliveira Trigo - University of Campinas
Pedro Kalid Bacellar - University of Campinas
Sérgio Nascimento Bordalo - University of Campinas
Sigbjørn Sangesland - Norwegian University of Science and Technology

Numerical Simulation on the Production Law of Gas Hydrate Reservoir by Heat Generation Powders Thermal Stimulation Assisted Depressurization, {156158}, 3:52 PM - 4:14 PM

Technical Paper Publication

Xueqi Liu - China University of Petroleum (East China)
Yangyang Zhang - China University of Petroleum (East China)
Hui Liu - CNPC Engineering Technology R&D Company Limited; Beijing 102206, China
Qingwen Kong - China University of Petroleum (East China)
Jianbo Zhang - China University of Petroleum (East China)
Jie Zhong - China University of Petroleum (East China)
Xiaohui Sun - China University of Petroleum (East China)
Baojiang Sun - China University of Petroleum (East China)
Zhiyuan Wang - China University of Petroleum (East China)

Numerical Simulation Study on Flow Aggregation Characteristics of Hydrate Slurry in Z-Shaped Pipeline, {156554}, 4:14 PM - 4:36 PM

Technical Paper Publication

En Li - China University of Petroleum (East China)
Zhiyuan Wang - China University of Petroleum (East China)
Jianbo Zhang - China University of Petroleum (East China)
Jihao Pei - China University of Petroleum (East China)
Ze Qin Li - China University of Petroleum (East China)
Xiuan Sui - China University of Petroleum (East China)
Baojiang Sun - China University of Petroleum (East China)

AI-Based Adaptive Digital Twin Framework for Real-Time Leak Detection and Localization in Offshore Gas Pipelines, {157014}, 4:36 PM - 4:38 PM

Technical Paper Publication

Wahib A. Al-Ammari - Qatar University
Ahmad K. Sleiti - Qatar University
M. Hamilton - Memorial University, St. John's, NL, Canada
Hicham Ferroudji - Texas A&M University at Qatar
Mohammad Azizur Rahman - Hamad Bin Khalifa University (HBKU)
Sina Rezaei Gomari - Teesside University
I. Hassan - Texas A&M University at Qatar
Abu Rashid Hasan - Texas A&M University

6/25/2025

3:30 PM to 5:00 PM - East Meeting Room 18

Chair: **ergun kuru - Univ Of Alberta**

Presentations:

Cementing Oil and Gas Wells by Dump Bailing Method: Effects of Injection Rate and Inclination Angle on Suspension Placement Efficiency, {156013}, 3:30 PM - 3:52 PM

Technical Paper Publication

Mohsen Faramarzi - Université Laval
Hossein Hassanzadeh - Université Laval
Seyed Mohammad Taghavi - Université Laval

Effects of Geometrical Irregularities on Displacement Flow in Annuli: An Experimental Approach, {156082}, 3:52 PM - 4:14 PM

Technical Paper Publication

Marzieh Alishahi - University of British Columbia
Yosef Rezaei - University of British Columbia
Roland Genshorek - University of British Columbia
Ian Frigaard - University of British Columbia

Immiscible Exchange Flows in Near-Horizontal Rotating Pipes With Applications in Well Cementing, {156084}, 4:14 PM - 4:36 PM

Technical Paper Publication

WENJIE LIU - Department of Chemical Engineering, Université Laval
Faïçal Larachi - Department of Chemical Engineering, Université Laval
Seyed Mohammad Taghavi - Department of Chemical Engineering, Université Laval

Placing Off-Bottom Cement Plugs: The Influence of Contamination From Sub-Optimal Placement in Vertical Wells, {156387}, 4:36 PM - 4:58 PM

Technical Paper Publication

*Amin Shakeri - Concordia University
Abdallah Ghazal - American University of Sharjah
Simon Iremonger - Sanjel
Ida Karimfazli - Concordia University*

6/25/2025

3:30 PM to 5:00 PM - East Meeting Room 7

Chair: **Yunil Chu** -

Presentations:

Feasibility of a Wave-Powered Lithium Extraction System, {155603}, 3:30 PM - 3:52 PM

Technical Paper Publication

*Griffin Bourjeaurd - University of Hawaii at Manoa
Ersegun Deniz Gedikli - University of Hawaii at Manoa*

Performance and Wave Attenuation of Stepped-Type Floating Breakwater Under Influence of Mooring Stiffness for Tropical Climate, {156243}, 3:52 PM - 4:14 PM

Technical Paper Publication

*Zhi Yung Tay - Singapore Institute of Technology
Lin Htoo Nyan - Singapore Institute of Technology*

Hydrodynamic Responses of an Oscillating Wave Surge Converter With an Adaptive-Geometry, {156027}, 4:14 PM - 4:36 PM

Technical Paper Publication

Huu Phu Nguyen - The University of Queensland

6/25/2025

3:30 PM to 5:00 PM - East Meeting Room 8

Chair: **Solomon Yim** -

Presentations:

Second-Order Extension of Wave Refraction/Diffraction Solution Over Variable Bathymetry, {157411}, 3:30 PM - 3:52 PM

Technical Paper Publication

*Ikjae Lee - Texas A&M University
Moohyun Kim - Texas A&M University*

An Experimental Analysis of Second-Order Roll Motions of New Generation FPSOs, {157416}, 3:52 PM - 4:14 PM

Technical Paper Publication

*Victor Cappelaro - University of Sao Paulo
Pedro C. De Mello - University of Sao Paulo
Asdrubal N. Queiroz Filho - University of Sao Paulo
Jordi Mas-Soler - University of Sao Paulo
Alexandre N. Simos - University of Sao Paulo
Allan C. Oliveira - Petroleo Brasileiro SA - Petrobras
Marcos Donato A S Ferreira - Petroleo Brasileiro SA - Petrobras*

Dynamic Mixing Pipe Under Deep Sea Current Disturbance, {158214}, 4:14 PM - 4:36 PM

Technical Paper Publication

*Zhuo Cheng - China University of Petroleum-Beijing
Ke Wang - China University of Petroleum-Beijing
Yingying Wang - China University of Petroleum-Beijing*

Coordinated Similarity Theory and Truncated Method of the Floating Bridge Under the Combination of Earthquakes and Waves, {156994}, 4:36 PM - 4:58 PM

Technical Presentation Only

Jialei Yan - Harbin Institute of Technology

Jiabin Liu - Harbin Institute of Technology
Chenchen Zhou - Harbin Institute of Technology
Anxin Guo - Harbin Institute of Technology

6/25/2025

3:30 PM to 5:00 PM - East Meeting Room 10

Chair: **Solomon Yim** -

Presentations:

Assessment of Intact Stability Criteria and Survivability for Semi-Submersible FOWT, {156464}, 3:30 PM - 3:52 PM

Technical Paper Publication

Zach (Kuan-Yi) Wu - National Taiwan University (NTU)

Amir Noorizadegan - National Taiwan University

Donghui Chen - Genesis Engineering LLC

Kai-Tung Ma - National Taiwan University

Survivability Analysis of a MODU Platform With Fibre Ropes and Automatic Thruster-Assisted Mooring: Intact and Damaged Conditions, {157068}, 3:52 PM - 4:14 PM

Technical Paper Publication

Leandro Souza Pinheiro da Silva - Delmar Systems

Saeed Mohajernasab - Delmar Systems

Ahmed Elhanafi - Delmar Systems

Kai Roger Nilsen - Delmar Systems

Jason Pasternak - Delmar Systems

Kwong Kiu - Delmar Systems

Review of Synthetic Fiber Ropes for Deepwater Moorings, {156184}, 4:14 PM - 4:36 PM

Technical Paper Publication

Da Li - CNOOC Research Institute Ltd.

Yushun Lian - Hohai University

Jinhai Zheng - Hohai University

Wenxing Chen - Zhejiang Sci-Tech University

Haixiao Liu - Tianjin university

Solomon C. Yim - School of Civil, Architectural and Construction Engineering, Oregon State University

Numerical Model Validation Using Full-Scale Data: Well Boat Moored to Fish Cage, {157200}, 4:36 PM - 4:58 PM

Technical Paper Publication

Simen Brodalen Lysthaug - SINTEF Ocean

Robert Indergård - SINTEF Ocean

Henning Braaten - SINTEF Ocean

Ørjan Selvik - SINTEF Ocean

6/25/2025

3:30 PM to 5:00 PM - East Meeting Room 6

Chair: **Mamdouh Salama - MMS4AIM LLC**

Presentations:

Modelling Orthotropic Plasticity in Thermoplastic Composite Pipes, {155280}, 3:30 PM - 3:52 PM

Technical Paper Publication

Mehdi Yasaee - Magma Global

Numerical Validation of a Composite Propeller Design by Using Different Hydro-Structural Coupling Methods, {156032}, 3:52 PM - 4:14 PM

Technical Paper Publication

Kashan Ali - University of Rostock

Maxime Deydier - Bureau Veritas

Stephane Paboeuf - Bureau Veritas

Pauline Regnier - Bureau Veritas Solutions

Gabriel Heguy - Meca
Thibaut Alleau - Meca

A Composite Shielding of Subsea Assets for Maximum Energy Absorption: Model Experiments, {157284}, 4:14 PM - 4:36 PM

Technical Paper Publication

Cheslav Balash - NavTech Pty Ltd
Heinrich Welmans - Edith Cowan University
Eric Curwood - Edith Cowan University
Rafael Sumah - Edith Cowan University
David Maclean - FLXMAT
Guy Maclean - FLXMAT

Numerical Study on the Dynamic Response of Composite Protective Covers Under Ship Anchor Impact, {157136}, 4:36 PM - 4:58 PM

Technical Paper Publication

Zhang Haidian - south china university of technology
Qu Yan - south china university of technology
Wang Kang - south china university of technology
Ding Qingqiang - south china university of technology

6/25/2025

3:30 PM to 5:00 PM - East Meeting Room 14

Chair: **Krish Thiagarajan Sharman -**

Chair: **Amir R. Nejad -**

Presentations:

Parametric Scoring Framework for Site Selection of Floating Offshore Wind Farmin India, {157160}, 3:30 PM - 3:52 PM

Technical Paper Publication

Subham Kashyap - Indian Institute of Technology Madras
Nilanjan Saha - Indian Institute of Technology Madras
Zhiyu Jiang - University of Agder

Marine Spatial Map for Floating Offshore Wind in South Korea Adopting IEA Wind Task 49 Reference Designs for Floating Wind, {156553}, 3:52 PM - 4:14 PM

Technical Paper Publication

Yong Yook Kim - Institute for Advanced Engineering
Kwan-Su Kim - Institute for Advanced Engineering
Ji Young Kim - Korea Electric Power Research Institute
Jin-Young Kim - Korea Institute of Energy Research

Wake Effect on Floating Offshore Wind - A Case Study in Fengfan Offshore Wind Farm, {156407}, 4:14 PM - 4:36 PM

Technical Paper Publication

Piinshin Huang - National Yang Ming Chiao Tung University
Yi-Hsiang Yu - National Yang Ming Chiao Tung University
Julian Quick - Technical University of Denmark

Towards Integrating Floating Wind Farms in Power Grids: Numerical Modeling Strategies Through Multi-Fidelity Numerical Tools, {157481}, 4:36 PM - 4:58 PM

Technical Presentation Only

Bonaventura Tagliafierro - Uppsala University
Victor Mendoza - Hexicon AB
Malin Göteman - Uppsala University

6/25/2025

3:30 PM to 5:00 PM - East Meeting Room 5

Chair: **Kazuhiro Iijima - The University of Osaka**

Chair: **Shinichiro Hirabayashi - The University of Tokyo**

Chair: **Tomoki Ikoma - Nihon University**

Presentations:

Mooring System Failure Detection Methods for Floating Offshore Wind Turbines Using Motion Measurement: Part 1 Tank Tests for Catenary Mooring Systems, {156265}, 3:30 PM - 3:52 PM

Technical Paper Publication

Shunka C. Hirao - National Maritime Research Institute

Ken Haneda - National Maritime Research Institute

Tomohiro Hasumi - National Maritime Research Institute

Sotaro Masanobu - National Maritime Research Institute

Mooring System Failure Detection Methods for Floating Offshore Wind Turbines Using Motion Measurement: Part 2 Numerical Simulation for Impact Assessment of Multiple Factors, {156098}, 3:52 PM - 4:14 PM

Technical Paper Publication

Ken Haneda - National Maritime Research Institute

Shunka C. Hirao - National Maritime Research Institute

Tomohiro Hasumi - National Maritime Research Institute

Sotaro Masanobu - National Maritime Research Institute

Ultimate Limit State Analysis and Snap Load Assessment of Mooring Lines for Floating Offshore Wind Turbines Across Varying Water Depths, {157450}, 4:14 PM - 4:36 PM

Technical Paper Publication

Chern Fong Lee - University of Stavanger

Muk Chen Ong - University of Stavanger

Shenyi Shen - University of Stavanger

6/25/2025

3:30 PM to 5:00 PM - East Meeting Room 13

Presentations:

Fatigue Assessment for Gearbox of a Floating Offshore Wind Turbine (FOWT), {157222}, 3:30 PM - 3:52 PM

Technical Paper Publication

Tingsen Zheng - Tianjin University

Nian-Zhong Chen - Tianjin University

Fatigue Reliability Assessment of Floating and Bottom-Fixed Offshore Wind Turbines, {156360}, 3:52 PM - 4:14 PM

Technical Paper Publication

Hadi Amlashi - University of South-Eastern Norway

Madjid Karimirad - Queen's University Belfast

Fatigue Assessment of Free-Span Subsea Pipelines, {156959}, 4:14 PM - 4:36 PM

Technical Paper Publication

Bianca Pinheiro - COPPE/UFRJ

Valtercio Barros - COPPE/Federal University of Rio de Janeiro

Ilson Pasqualino - COPPE/Federal University of Rio de Janeiro

6/25/2025

3:30 PM to 5:00 PM - East Meeting Room 9

Presentations:

Integrated Toolsets for Rapid Pipeline Girth Weld Reeling ECA Solution, {157454}, 3:30 PM - 3:52 PM

Technical Paper Publication

Lingjun Cao - Subsea 7

Shiwen Wang - Subsea7

Emrah Sozumert - Subsea7

A Segment Test Validation Program for Reeling ECA of Partially Over-Matching CRA Girth Welds, {157228}, 3:52 PM - 4:14 PM

Technical Paper Publication

Lingjun Cao - Subsea 7

Shirin Espiari - Subsea7

Nacer Bachir-Cherif - Total SA
Emrah Sozumert - Subsea7
Xiaowei Wang - Subsea7

Pre-Metrology in Subsea Rigid Jumpers As a Key to Anticipating First Oil in the Pre-Sal Scenario, {155081}, 4:14 PM - 4:36 PM
Technical Paper Publication

Bernardo De Castro - PETROLEO BRASILEIRO SA
Rafael Cabral - PETROLEO BRASILEIRO SA
Ricardo Peixoto - PETROLEO BRASILEIRO SA
Tomaz Vargas - PETROLEO BRASILEIRO SA
Walter Junior - PETROLEO BRASILEIRO SA
Eduardo Volpi - SAIPEM DO BRASIL
Bruno Bianco - SAIPEM DO BRASIL
Mazia Yohou - SAIPEM DO BRASIL

6/25/2025

3:30 PM to 5:00 PM - East Meeting Room 15

Presentations:

Dynamic Response of a Monopile Offshore Wind Turbine to Combined Wind, Wave, and Earthquake Excitations, {153852}, 3:30 PM - 3:52 PM

Technical Presentation Only

Hiroaki Kashima - Port and Airport Research Institute
Haruo Yoneyama - Port and Airport Research Institute

Updates From Iea Wind Task 49 on Integrated Design of Floating Wind Arrays, {156632}, 3:52 PM - 4:14 PM

Technical Presentation Only

Matthew Hall - NREL
Ericka Lozon - National Renewable Energy Laboratory
Shauna Creane - Venterra Group
Michel Castagne - IFPEN
Muk Chen Ong - University of Stavanger
Christopher Wright - Venterra Group
Fiona Devoy-Mcauliffe - University College Cork
Mitra Kamidelvand - University College Cork
Charbel Nasr - BlueFloat Energy
Greg Bohan - Venterra Group
Ota Dvorak - Venterra Group

Refining an Analytic Typhoon Model With Wrf-Simulated Wind Fields for an Offshore Wind Farm in Taiwan, {157056}, 4:14 PM - 4:36 PM

Technical Presentation Only

Yu-Chieh Hung - National Taiwan University
Nan-You Lu - National Taiwan University
Mao-Hsiung Chiang - National Taiwan University

Integrating Deep Learning and Numerical Simulations for Efficient Prediction of Dynamic Mooring Response in Floating Offshore Wind Turbine, {155988}, 4:36 PM - 4:58 PM

Technical Presentation Only

Yuchen Lin - Department of Hydraulic and Ocean Engineering, National Cheng Kung University
Rayyeng Yang - Department of Hydraulic and Ocean Engineering, National Cheng Kung University

THURSDAY, 6/26/2025

6/26/2025

8:30 AM to 10:00 AM - East Meeting Room 19

Chair: *ergun kuru - Univ Of Alberta*

Presentations:

Sensitivity Analysis of Flow Displacement in Oil Wells, {156445}, 8:30 AM - 8:52 AM
Technical Paper Publication

Matheus Xavier - Pontificia Universidade Catolica do Rio de Janeiro
Vanessa Picoli - Pontificia Universidade Catolica do Rio de Janeiro
Priscilla Varges - Pontificia Universidade Catolica do Rio de Janeiro
Lucas Mendonça - Pontificia Universidade Catolica do Rio de Janeiro
Sergio Ribeiro - Pontificia Universidade Catolica do Rio de Janeiro
Monica Naccache - Pontificia Universidade Católica do Rio de Janeiro
Paulo De Souza Mendes - Pontificia Universidade Catolica do Rio de Janeiro
Carlos Carvalho - Petrobras

Evaluation of Primary Cementing Operations for a Carbon Capture Storage (CCS) Well: A Case Study, {156646}, 8:52 AM - 9:14 AM
Technical Paper Publication

Fatemeh Bararpour - University of British Columbia
Yosef Rezaei - University of British Columbia
Dustin Kinch - Subterra Group of Companies
Gunnar Debruijn - Sanjel Energy Services
Ian Frigaard - University of British Columbia

Experiments on Displacement of Viscoplastic Fluid in an Annulus With Wavy Inner Wall: Applications in Primary Cementing, {156977}, 9:14 AM - 9:36 AM

Technical Paper Publication

Yosef Rezaei - University of British Columbia
Marzieh Alishahi - University of British Columbia
Soheil Akbari - University of British Columbia
Ian Frigaard - University of British Columbia

Three-Dimensional Hydrodynamics of Off-Bottom Plug Placement in Eccentric Wellbores, {157082}, 9:36 AM - 9:58 AM
Technical Paper Publication

Amin Shakeri - Concordia University
Abdallah Ghazal - American University of Sharjah
Ida Karimfazli - Concordia University

6/26/2025

8:30 AM to 10:00 AM - East Meeting Room 18

Chair: *ergun kuru* - Univ Of Alberta

Presentations:

A Pre-Drilling Loss Risk Prediction Method Based on Seismic Data and Its Application in Middle Eastern Oilfield, {156461}, 8:30 AM - 8:52 AM

Technical Paper Publication

Zhen Nie - Research Institute of Petroleum Exploration and Development/CNPC R&D (DIFC),
Shuzhe Shi - Research Institute of Petroleum Exploration and Development, CNPC
Bohong Wu - Research Institute of Petroleum Exploration and Development, CNPC
Xueqin Huang - Research Institute of Petroleum Exploration and Development, CNPC

Investigating Hole Opener Stinger Length on Drilling Performance and Founder Point in Soft and Hard Rock Formations, {156497}, 8:52 AM - 9:14 AM

Technical Paper Publication

Ibrahim Futeiz - Memorial University of Newfoundland
Abourawi Alwaar - Memorial University of Newfoundland
Abdelsalam Abugharara - Memorial University of Newfoundland
Jianming Yang - Memorial university
Stephen Butt - Memorial University of Newfoundland

Real-Time Monitoring of Amine-Based Shale Inhibitor Concentration in Drilling Fluids, {156568}, 9:14 AM - 9:36 AM
Technical Presentation Only

Vikrant Wagle - Saudi Aramco
Abdullah Al Yami - Saudi Aramco
Omprakash Pal - Saudi Aramco

Ali Safran - Saudi Aramco
Rafael Pino - Saudi Aramco
Tulio Olivares - Saudi Aramco

Trajectory Calculation for Complementing 3-D Well Path Planning in Geosteering Operations, {156845}, 9:36 AM - 9:58 AM

Technical Paper Publication

Luis Saavedra Jerez - University of Stavanger
Eric Cayeux - Norwegian Research Center (NORCE)
Dan Sui - University of Stavanger

6/26/2025

8:30 AM to 10:00 AM - East Meeting Room 9

Chair: **Zhimin Tan - Baker Hughes**

Presentations:

A Qualitative Comparison of Measured and Theoretical Metocean Data and its Impact on Flexible Riser Design, {156694}, 8:30 AM - 8:52 AM

Technical Paper Publication

Karina Bruun Mortensen - 4Subsea
Anna Fæhn Follestad - 4Subsea

Flexible Riser Dropped-Object Impact Resistance, {157205}, 8:52 AM - 9:14 AM

Technical Paper Publication

Krassimir Doynov - ExxonMobil Upstream Integrated Solutions Company
Michael Firmian - ExxonMobil Upstream Integrated Solutions Company
Yifei Zeng - ExxonMobil Upstream Integrated Solutions Company
Adam Machnik - TechnipFMC
Bruno Morena - TechnipFMC
Elodie Tillier - TechnipFMC
Guillaume Micas - Technip FMC
Jonathan Brewer - Stress Engineering Services, Inc.
Brent Vyvial - Stress Engineering Services, Inc.
Yun Han - Stress Engineering Services, Inc

Slugging Induced Fatigue for Flexible Pipe, {157398}, 9:14 AM - 9:36 AM

Technical Paper Publication

Yucheng Hou - Baker Hughes
Angshuman Singha - ExxonMobil Services & Technology Private Limited
Jiabai Yuan - Baker Hughes
Fernando Stump - ExxonMobil
Zhimin Tan - Baker Hughes

Case Study to Investigate the Effects of Modal Damping on Free Spanning Flexible Pipeline, Umbilical and Cable, {157457}, 9:36 AM - 9:58 AM

Technical Paper Publication

Linlin Jiao - DNV AS
Mario Caruso - DNV AS

6/26/2025

8:30 AM to 10:00 AM - East Meeting Room 16

Chair: **Owen Oakley - Retired**

Presentations:

Treatment of Singular Integrals for Boundary Element Methods in Hydro- and Aerodynamics - A Short Review, {156569}, 8:30 AM - 8:52 AM

Technical Paper Publication

Moritz Hartmann - German Aerospace Center (DLR)
Karsten Bock - German Aerospace Center (DLR)

Nicolas Desmars - German Aerospace Center (DLR)
Jakob Schwarz - Hamburg University of Technology
Sören Ehlers - German Aerospace Center (DLR)
Marco Klein - German Aerospace Center (DLR)

Numerical Study on the Effects of Particle Shape and Fluid Rheological Behavior on Material Transport, {157275}, 8:52 AM - 9:14 AM
Technical Paper Publication

Lucas Passos Volpi - NORCE
Eric Cayeux - NORCE
Rodica Georgeta Mihai - NORCE

Towards a Comprehensive Design Tool for Flexible Wave Energy Converters: Multiphysics-Augmented SPH-Based Framework, {157460}, 9:14 AM - 9:36 AM

Technical Paper Publication

Salvatore Capasso - Università degli Studi di Salerno
Iván Martínez-Estévez - Universidade de Vigo
Bonaventura Tagliaferro - Uppsala University
Malin Göteman - Uppsala University
Corrado Altomare - Universitat Politècnica de Catalunya - BarcelonaTech
José Manuel Domínguez - Universidade de Vigo
Krish Thiagarajan - University of Massachusetts Amherst
Moncho Gómez-Gesteira - Universidade de Vigo
Giacomo Viccione - Università degli Studi di Salerno
Alejandro j.c. Crespo - Universidade de Vigo

Fluid Structure Interaction Modelling of the Regular Water-Waves Impact on a Flexible Beam, {155324}, 9:36 AM - 9:58 AM

Technical Paper Publication

Wajiha Rehman - Mocean Offshore BV
Tim Bunnik - Maritime Research Institute Netherlands (MARIN)

6/26/2025

8:30 AM to 10:00 AM - East Meeting Room 10

Chair: **Solomon Yim** -

Presentations:

Development of Automatic Berthing System for Ship Based on Push-Pull Controller, {156944}, 8:30 AM - 8:52 AM

Technical Presentation Only

Sun-Hyuck Im - Pukyong National University, Korea, republic of
Hui-Hun Son - Pukyong National University, Korea, republic of
Seong-Hyeon Jeong - Pukyong National University, Korea, republic of
Jung-Hyeon Kim - Pukyong National University, Korea, republic of
Dong-Han Kim - Pukyong National University, Korea, republic of
Do-Kyun Kim - Pukyong National University, Korea, republic of
Hyo-Eun Kang - Pukyong National University, Korea, republic of
Si-Won Kim - Pukyong National University, Korea, republic of
Jin-Hyeok Seo - Pukyong National University, Korea, republic of
Dong-Jin Yeo - Autonomous Intelligent Transportation Research Center, Korea Research Institute of Ships & Ocean Engineering
Jong-Yong Park - Pukony National University, Korea, republic of

Development of Dynamic Obstacle Avoidance Algorithm Using Model Predictive Control and Control Barrier Functions, {157006}, 8:52 AM - 9:14 AM

Technical Presentation Only

Jin-Hyeok Seo - PukyongNationalUniversity
Jung-Hyeon Kim - Pukyong National University
Hui-Hun Son - Pukyong National University
Dong-Han Kim - Pukyong National University
Do-Kyun Kim - Pukyong National University
Hyo-Eun Kang - Pukyong National University
Si-Won Kim - Pukyong National University
Sung-Hyun Jung - Pukyong National University
Sun-Hyuck Im - Pukyong National University
Jong-Yong Park - Pukyong National University

Development of 6-Dof Motion Measurement System for Model Ships Using 3d-Lidar Slam, {157133}, 9:14 AM - 9:36 AM
Technical Presentation Only

Si-Won Kim - Pukyong National University
Dong-Han Kim - Pukyong National University
Jung-Hyun Kim - Pukyong National University
Hee-Hoon Son - Pukyong National University
Do-Gyun Kim - Pukyong National University
Hyo-Eun Kang - Pukyong National University
Sun-Hyuck Im - Pukyong National University
Sung-Hyun Jung - Pukyong National University
Jin-Heok Seo - Pukyong National University
Kun-Hang Yun - Korea Research Institute Of Ships & Ocean Engineering
Dong-Jin Kim - Korea Research Institute Of Ships & Ocean Engineering
Jong-Yong Park - Pukyong National University

Experimental Research on Added Resistance of KVLCC2 in Short Wave Dominated Irregular Waves, {156401}, 9:36 AM - 9:58 AM
Technical Paper Publication

Ziwen Zhang - Shanghai Jiao Tong University
Ning Ma - Shanghai Jiao Tong University
Qiqi Shi - Shanghai Jiao Tong University

6/26/2025

8:30 AM to 10:00 AM - East Meeting Room 8

Chair: **Solomon Yim** -
Presentations:

Investigation on the Shape Effect of Directional Spectrum on the Estimation of Added Resistance in Short Crested Irregular Waves, {155376}, 8:30 AM - 8:52 AM

Technical Paper Publication
Naoto Sogihara - National Maritime Research Institute Japan

Numerical Study of Ship Maneuvering in Irregular Waves Based on Two-Time-Scale Model, {156111}, 8:52 AM - 9:14 AM
Technical Paper Publication

Guohua Dong - Huazhong University of Science and Technology
Chaobang Yao - Huazhong University of Science and Technology
Meng Meng - Huazhong University of Science and Technology
Jiawei Yu - Huazhong University of Science and Technology
Dakui Feng - Huazhong University of Science and Technology
Wei Li - Huazhong University of Science and Technology

A New Membrane Computing-Based Method for Marine Propellers Design, {156422}, 9:14 AM - 9:36 AM
Technical Paper Publication

Kun Ban - Wuhan University of Technology
Wenping Li - Guangxi CSBC Beibu Gulf Ship & Ocean Engineering Design Co.
Long Zheng - Wuhan University of Technology
Hao Wang - Han River Laboratory
Shunhuai Chen - Wuhan University of Technology

6/26/2025

8:30 AM to 10:00 AM - East Meeting Room 6

Chair: **Mamdouh Salama** - **MMS4AIM LLC**
Presentations:

Methodology Proposal for Assessing SCC-CO2 Susceptibility in Flexible Pipe Armor Wires , {157594}, 8:30 AM - 8:52 AM
Technical Paper Publication

Mariana Tagliari - UFRGS/LAMEF
Derek Fonseca - UFRGS/LAMEF
Waleska Guaglianoni - UFRGS/LAMEF
Fabricio Pinheiro Dos Santos - PETROBRAS

Development of a Wear Coupon Test Machine to Reproduce the Severe-Mild Wear Transition for Mooring Chains of Floating Offshore Wind Turbines, {157484}, 8:52 AM - 9:14 AM

Technical Paper Publication

Takaaki Takeuchi - Osaka University
Yuko Onishi - Osaka University
Eisuke Nozoe - Osaka University

Additive Manufacturing of Maritime Structural Components – A Classification Perspective, {156947}, 9:14 AM - 9:36 AM

Technical Paper Publication

Elizabeth Mccaig - Lloyd's Register
Mario Lopes De Castro - Lloyd's Register
Adam Saxty - Lloyd's Register
Yikun Wang - Lloyd's Register
Gina Mullarkey - Lloyd's Register

The U-Type Metal Sealing Simulation on Subsea Tubing Hanger, {155396}, 9:36 AM - 9:58 AM

Technical Paper Publication

Xing Wang - CNOOC Energy Development Co.
Shiqiang Wang - CNOOC Energy Development Co.
Shaodong Ju - CNOOC Energy Development Co.
Baofu Wang - CNOOC Energy Development Co.
Qianyu Li - China University of Petroleum, Beijing
Qishuai Yin - China University of Petroleum, Beijing
Yingying Guo - Louisiana State University

6/26/2025

8:30 AM to 10:00 AM - East Meeting Room 14

Chair: **Krish Thiagarajan Sharman -**

Chair: **Anil Sablok - Technip Energies**

Presentations:

Wave Loads on Monopile Foundations Revisited – New High-Quality Experiments for Validation of a Novel Engineering Model, {156732}, 8:30 AM - 8:52 AM

Technical Paper Publication

Jana Orszaghova - University of Western Australia
Paul Taylor - University of Western Australia
Hugh Wolgamot - University of Western Australia
Guy Mc Cauley - University of Western Australia
Adi Kurniawan - University of Western Australia
Bryan Tan - University of Western Australia
Qinming Wu - University of Western Australia
Ajay Ebey George - University of Western Australia

A Methodology for Site-Wide Structural Optimisation and Advanced Clustering of Monopile Foundations for Next-Generation Offshore Wind Turbines, {157230}, 8:52 AM - 9:14 AM

Technical Paper Publication

Christopher Hamilton - Arup
Sam Ramsahoye - Arup
Ian Ashcroft - Arup
Daniel Powell - Arup
Graeme Mccann - Arup

Preliminary Design Methodology Based on Numerical Optimization of Offshore Wind Turbine on a Monopile With Application in Offshore Brazil, {157324}, 9:14 AM - 9:36 AM

Technical Paper Publication

Rodrigo Batista Soares - Federal University of Rio de Janeiro
Alexandre De Jesus Pitta - Federal University of Rio de Janeiro
Daniel De Oliveira Costa - Federal University of Rio de Janeiro
Antonio Carlos Fernandes - Federal University of Rio de Janeiro
Joel Sena Sales Junior - Federal University of Rio de Janeiro
Cassiano Neves - CRN Engenharia

Thomaz Benatti - UFRJ
Mauricio Silva Simoes - DELP
Pedro Henrique De Castro Rabelo - DELP

Innovative Hydrodynamic Research Facilities for Offshore Renewable Energy: a Case Study on the Effects of Biofouling, {157208}, 9:36 AM - 9:58 AM

Technical Paper Publication

Nils Goseberg - Technische Universität Braunschweig
Clemens Krautwald - Technische Universität Braunschweig
Constantin Schweiger - Technische Universität Braunschweig
David Schürenkamp - Technische Universität Braunschweig
Christian Windt - Technische Universität Braunschweig

6/26/2025

8:30 AM to 10:00 AM - East Meeting Room 13

Presentations:

Resilient Power Infrastructure: Atmospheric Ice Accretion Emergency Events Management Strategies, {153791}, 8:30 AM - 8:52 AM

Technical Paper Publication

Ali Nouri - UiT The Arctic University of Norway- University of Tromsø
Javad Barabady - UiT the Arctic University of Norway
Abbas Barabadi - UiT the Arctic University of Norway
Mohsen Vahabbi - UiT the Arctic University of Norway

Automated Detection of Icebergs in the North Atlantic Using RCM Dual-Polarimetric SAR Imagery for Offshore Safety, {155236}, 8:52 AM - 9:14 AM

Technical Paper Publication

Zahra Jafari - MUN
Pradeep Bobby - C-CORE
Ebrahim Karami - Memorial University of Newfoundland
Rocky Taylor - MUN

Evaluating Natech Risks in the Liquid Hydrogen Maritime Bunkering Infrastructure, {156960}, 9:14 AM - 9:36 AM

Technical Paper Publication

Federica Tamburini - Alma Mater Studiorum - University of Bologna
Federica Ricci - Alma Mater Studiorum - University of Bologna
Valerio Cozzani - Alma Mater Studiorum - University of Bologna

Design Methodology for Implementing an Offshore Operations Simulation Center, {157516}, 9:36 AM - 9:58 AM

Technical Paper Publication

Marcos Maturana - LABRISCO/USP
Danilo Taverna Martins Pereira De Abreu - LABRISCO/USP
Rene Thiago Capelari Orłowski - PETROBRAS
Marcelo Ramos Martins - LABRISCO/USP

6/26/2025

8:30 AM to 10:00 AM - East Meeting Room 15

Presentations:

Mooring Sensitivity Analysis of Semi-Submersible Platform Delta Float Equipped With 15mw Wind Turbine in the Taiwan Strait, {156254}, 8:30 AM - 8:52 AM

Technical Presentation Only

Shun Wen Cheng - Department of Hydraulic and Ocean Engineering, National Cheng Kung University
Cheng Hsien Chung - Ship and Ocean Industries R&D Center
Ray Yeng Yang - Department of Hydraulic and Ocean Engineering, National Cheng Kung University

A Shared Mooring System Considering Bathymetry Data in a Hexagonal Array for Offshore Wind Farm, {156956}, 8:52 AM - 9:14 AM

Technical Presentation Only

Haeyoung Lim - Korea Maritime and Ocean University
Seungjae Lee - Korea Maritime and Ocean University
Minjun Lee - China University of Petroleum-Beijing
Kwanwoo Park - Korea Maritime and Ocean University
Younghoon Shin - Korea Maritime and Ocean University

Mooring Design Under Tropical Cyclones, {157507}, 9:14 AM - 9:36 AM

Technical Presentation Only

Ryota Wada - The University of Tokyo
Yuefan Du - The University of Tokyo
Kai-Tung Ma - National Taiwan University

Machine Learning-Based Design Optimisation of a Wec Mooring System, {157636}, 9:36 AM - 9:58 AM

Technical Presentation Only

Oscar Festa - University of Southampton
Ian Denton - Corpower Ocean
Jonny Meason - Corpower Ocean
Susan Gourvenec - University of Southampton

6/26/2025

10:30 AM to 12:00 PM - East Meeting Room 19

Chair: **ergun kuru - Univ Of Alberta**

Presentations:

A Physics-Informed Monte Carlo Approach for Squeeze Cementing Effectiveness: Eccentricity, Shrinkage, and Pore-Blockage, {157101}, 10:30 AM - 10:52 AM

Technical Paper Publication

Mahdi Izadi - University of British Columbia
Ian Frigaard - University of British Columbia

Bridging Experiments and Reality: 3D Simulation of Cement Slurry Injection in Plug Placement, {157117}, 10:52 AM - 11:14 AM

Technical Paper Publication

Amin Shakeri - Concordia University
Abdallah Ghazal - American University of Sharjah
Ida Karimfazli - Concordia University

Evaluation of Physical and Chemical Properties of High-Temperature Cement for Supercritical Geothermal Wells, {157187}, 11:14 AM - 11:36 AM

Technical Paper Publication

Nodoka Watabe - Akita university
Elvar Bjarkason - Akita University
Shigemi Naganawa - Akita university

A New Approach to Cure Losses by Nitrogen Foaming Technique in Cement Plugs, {156108}, 11:36 AM - 11:58 AM

Technical Paper Publication

Khaled Alturkey - Saudi Aramco
Abdullah Yami - Saudi Aramco
Vikrant Wagle - Saudi Aramco
Saif Sendi - Saudi Aramco

6/26/2025

10:30 AM to 12:00 PM - East Meeting Room 18

Chair: **ergun kuru - Univ Of Alberta**

Presentations:

Impact of Fluid Flow on Hook Load and Torque: Advancing Predictive Models for Drilling Operations, {157114}, 10:30 AM - 10:52 AM

Technical Paper Publication

Elmir Hamidov - The University of Tulsa

Silvio Baldino - The University of Tulsa
Evren Ozbayoglu - Tulsa University
Warren Winters - The University of Tulsa
Stefan Z. Miska - The University of Tulsa

Investigation of PDC Drill Bit Wear and its Effect on Drilling Performance, {157480}, 10:52 AM - 11:14 AM
Technical Paper Publication

Pushpinder Rana - Memorial University of Newfoundland and Labrador
John Molgaard - Memorial University of Newfoundland and Labrador
Stephen Butt - Memorial University of Newfoundland and Labrador

Coupling of Drill String Whirl and Magnus Effect in Deepwater Drilling, {157499}, 11:14 AM - 11:36 AM
Technical Paper Publication

Tatsuya Kaneko - Japan Agency for Marine-Earth Science and Technology
Tomoya Inoue - Japan Agency for Marine-Earth Science and Technology
Ryunosuke Sawaki - Osaka University
Hiroyoshi Suzuki - Osaka University

6/26/2025

10:30 AM to 12:00 PM - East Meeting Room 9

Chair: **Zhimin Tan - Baker Hughes**

Presentations:

Design of Lazy Wave Configuration of Dynamic Power Cable for 15MW Floating Offshore Wind Turbine Based on Dynamic and Fatigue Analysis, {156940}, 10:30 AM - 10:52 AM

Technical Paper Publication

Doyoung Kwon - INHA University, Ship and Offshore Structure Engineering Lab
Joonmo Choung - INHA University, Ship and Offshore Structure Engineering Lab

Four Point Bending and Crushing Simulations Under Controlled Tension Condition of a Dynamic Power Cable for Floating Offshore Wind Turbines, {156942}, 10:52 AM - 11:14 AM

Technical Paper Publication

Tri-Hoang Nguyen - Naval Architecture & Ocean Engineering
Joonmo Choung - Naval Architecture & Ocean Engineering

6/26/2025

10:30 AM to 12:00 PM - East Meeting Room 15

Chair: **Krish Thiagarajan Sharman -**

Chair: **Narakorn Srinil -**

Presentations:

Technical Development of a Liquefied CO2 Tank for Low Pressure Application in Marine Transportation, {154823}, 10:30 AM - 10:52 AM
Technical Paper Publication

Michihisa Watanabe - Mitsubishi Shipbuilding Co., Ltd.
Shin Terada - Mitsubishi Shipbuilding Co., Ltd.
Tadashi Sugimura - Mitsubishi Heavy Industries, Ltd.
Daiki Nakanishi - NIPPON STEEL CORPORATION
Hirokazu Usuki - NIPPON STEEL CORPORATION
Teppei Okawa - NIPPON STEEL CORPORATION
Nobuyuki Yoshimura - NIPPON STEEL CORPORATION
Haruki Igari - NIPPON STEEL CORPORATION

Development of P690QL2 High Tensile Strength Steel Plate for Medium Pressure Liquefied CO2 Tank, {156773}, 10:52 AM - 11:14 AM
Technical Paper Publication

Nobuyuki Yoshimura - NIPPON STEEL CORPORATION
Takeshi Okubo - NIPPON STEEL CORPORATION
Teppei Okawa - NIPPON STEEL CORPORATION
Masashi Nomoto - NIPPON STEEL CORPORATION

Hirokazu Usuki - NIPPON STEEL CORPORATION
Haruki Igari - NIPPON STEEL CORPORATION
Michihisa Watanabe - Mitsubishi Shipbuilding Co., Ltd.
Shin Terada - Mitsubishi Shipbuilding Co., Ltd.
Tadashi Sugimura - Mitsubshi Heavy Industries, Ltd.

Second Law Analysis of an Electrochemical Ammonia Production Cell for Hydrogen Storage and Transport, {157529}, 11:14 AM - 11:36 AM

Technical Paper Publication

Sebastian Reyna Martinez - Memorial University of Newfoundland
Kevin Pope - Memorial University of Newfoundland
Greg Naterer - University of Prince Edward Island

Powering the Blue Economy at the National Renewable Energy Laboratory, {157612}, 11:36 AM - 11:58 AM

Technical Presentation Only

Senu Srinivas - NREL

6/26/2025

10:30 AM to 12:00 PM - East Meeting Room 10

Chair: **Solomon Yim** -

Presentations:

Wave Distortion Methodology for Experimental Mixed-Scale Testing of Underwater Vehicle Docking, {156599}, 10:30 AM - 10:52 AM

Technical Paper Publication

Junhui Lou - Oregon State University
David Okushemiya - Oregon State University
Bryson Robertson - Oregon State University

Experimental Investigation of 3D Reflection in an Ocean Basin, {156752}, 10:52 AM - 11:14 AM

Technical Paper Publication

Sébastien Lafleche - SINTEF Ocean
Sébastien Fouques - SINTEF Ocean
Trygve Kristiansen - Norwegian University of Science and Technology
Babak Ommani - Norwegian University of Science and Technology

Experimental Investigations of Global Motions and Loads of Containership, {157226}, 11:14 AM - 11:36 AM

Technical Paper Publication

Yingying Chen - TCOMS
Zhiping Cheng - TCOMS

Wave Tank Test of a DP Drilling Ship Model With Active Environmental Force Emulation, {157424}, 11:36 AM - 11:58 AM

Technical Paper Publication

Ales S. Huang - University of São Paulo / Numerical Offshore Tank Laboratory (TPN-USP)
Eduardo A. Tannuri - University of São Paulo / Numerical Offshore Tank Laboratory (TPN-USP)
Pedro C. De Mello - University of São Paulo / Numerical Offshore Tank Laboratory (TPN-USP)
Asdrubal N. Queiroz Filho - University of São Paulo / Numerical Offshore Tank Laboratory (TPN-USP)
Mauro C. De Oliveira - Centro de Pesquisas, Desenvolvimento e Inovação Leopoldo Américo Miguez de Mello - CENPES / PETROBRAS

6/26/2025

10:30 AM to 12:00 PM - East Meeting Room 8

Chair: **Solomon Yim** -

Presentations:

To Improve the Mooring of a LNG Carrier to a Jetty Exposed to Swell Waves, {156442}, 10:30 AM - 10:52 AM

Technical Paper Publication

Alex Van Deyzen - Royal HaskoningDHV
Ly Nguyen - Royal HaskoningDHV

Hydroelastic Behavior of a Converted FPSO Platform Under Head Waves Excitation, {156754}, 10:52 AM - 11:14 AM
Technical Paper Publication

Filipe Salvador Lopes - UFRJ
Rodrigo De Souza Silva - Petrobras
Antonio Carlos Fernandes - UFRJ
Joel Sena Sales Junior - UFRJ
Nicolau Antonio Dos Santos Rizzo - Petrobras

Wind Load Characteristics of Semi-Planing Typed High-Speed Vehicle With Changing Body Attitude, {156522}, 11:14 AM - 11:36 AM
Technical Paper Publication

Kenta Hasegawa - National Maritime Research Institute, National Institute of Maritime, Port and Aviation Technology
Kei Ishida - National Maritime Research Institute, National Institute of Maritime, Port and Aviation Technology
Kazuhiro Yukawa - National Maritime Research Institute, National Institute of Maritime, Port and Aviation Technology
Kazuhiro Goto - Ground Systems Research Center, Acquisition, Technology & Logistics Agency, Ministry of Defense
Teruaki Nagasawa - Ground Systems Research Center, Acquisition, Technology & Logistics Agency, Ministry of Defense

6/26/2025

10:30 AM to 12:00 PM - East Meeting Room 6

Chair: **Mamdouh Salama - MMS4AIM LLC**

Presentations:

Polymer Inner Liner Strain Boundaries – From Factory to Service, {156350}, 10:30 AM - 10:52 AM
Technical Paper Publication

Martin Helgesen - NOV Denmark I/S
Christian Wang - NOV
Miguel Dantas - NOV
Laetitia Fraisse - NOV

Unit Cell Approach: Verifying Flowline Insulation Coating Capacity Under High Tension Conditions, {156518}, 10:52 AM - 11:14 AM
Technical Paper Publication

Jose Torres - Subsea 7
Sabesan Rajaratnam - Subsea 7

Reinforcement Effect and Adhesive Strength of CFRP Reinforced Steel Plate Based on Accelerated Testing Method in Seawater Environments, {156711}, 11:14 AM - 11:36 AM
Technical Paper Publication

Tsuyoshi Matsuo - National Maritime Research Institute
Akio Sakurai - National Maritime Research Institute
Fuminori Yanagimoto - Nippon Kaiji Kyokai
Yuya Hidekuma - Nippon Steel Chemical & Material Co., Ltd.
Shunta Sakurai - Nippon Steel Chemical & Material Co., Ltd.

The Impacts of Long-Term Submersion in Seawater on Thermoplastic-Matrix Composite Materials, {152685}, 11:36 AM - 11:58 AM
Technical Paper Publication

Ione L. M. Smith - IDCORE - FastBlade
James M. Maguire - The University of Sheffield
Machar Devine - The University of Edinburgh
Edward D. McCarthy - The University of Edinburgh
Philipp Thies - University of Exeter
Selda Oterkus - University of Strathclyde
Winifred Obande - The University of Edinburgh

6/26/2025

10:30 AM to 12:00 PM - East Meeting Room 14

Chair: **Krish Thiagarajan Sharman -**

Chair: **Milad Shadman -**

Presentations:

Effects of Ice, Wind, Waves and Currents on Offshore Wind Turbines Destined for Atlantic Canada, {156062}, 10:30 AM - 10:52 AM
Technical Paper Publication

Ahmed Derradji-Aouat - National Research Council of Canada
Paul Stuckey - C-CORE
Mark Fuglem - C-CORE
Ian Turnbull - C-CORE

Sustainable Solutions to Repurpose Wind Turbine Blades for Offshore Applications, {156731}, 10:52 AM - 11:14 AM
Technical Paper Publication

Zohreh Adibi Pour - Queen's University Belfast
Madjid Karimirad - Queen's University Belfast
Daniel Mcpolin - Queen's University Belfast
Astley Hastings - University of Aberdeen

Probabilistic Fatigue Estimation of Ageing Wind Turbine Blades Using a Bayesian Network Framework, {157240}, 11:14 AM - 11:36 AM
Technical Paper Publication

Hannah Mitchell - Industrial CDT in Offshore Renewable Energy (IDCORE)
Nigel Pready - Frazer-Nash Consultancy
David García Cava - The University of Edinburgh
Ali Mehmanparast - University of Strathclyde
Philipp Thies - University of Exeter

Study of Moisture Diffusion in Wind Turbine Blades and its Role in Accelerating Cumulative Damage, {157377}, 11:36 AM - 11:58 AM
Technical Paper Publication

Nikesh Kuthe - Indian Institute of Technology Delhi, New Delhi, India
Suhail Ahmed - Indian institute of technology Delhi
Puneet Mahajan - Indian Institute of Technology Delhi
Leon Mishnaevsky Jr. - Danmarks Tekniske Universitet

6/26/2025

10:30 AM to 12:00 PM - East Meeting Room 16

Presentations:

A Numerical Simulation of Ship Self-Propulsion Used Modified Body Force Method Based on Wake, {156151}, 10:30 AM - 10:52 AM
Technical Paper Publication

Yongyan Ma - School of Naval Architecture & Ocean Engineering Huazhong University of Science and Technology
Dakui Feng - School of Naval Architecture & Ocean Engineering Huazhong University of Science and Technology

Integration of Cfd and Lstm Methods for Predictive Analysis of Hydrodynamic Forces on a Neutrally Buoyant Autonomous Underwater Vehicle Under Wave Conditions, {155973}, 10:52 AM - 11:14 AM

Technical Presentation Only

Yu-Hsien Lin - National Cheng Kung University
Cheng-Chi Shih - National Cheng Kung University

Hydrodynamic Characteristics of NACA0012 Hydrofoil with Modified Leading-Edge Designs under Undulatory Motion, {157840}, 11:14 AM - 11:36 AM

Technical Paper Publication

Balakrishnan Narendhiran - INDIAN INSTITUTE OF TECHNOLOGY MADRAS
Narendran Kumar - Indian Institute of Technology Madras

6/26/2025

1:30 PM to 3:00 PM - East Meeting Room 16

Chair: **Owen Oakley - Retired**

Chair: **Guilherme Vaz -**

Chair: **Celso Pesce - USP**

Presentations:

Influence of Slip Length on Turbulence Propagation Along the Chord of NACA 64-618 Airfoil, {156481}

Technical Paper Publication

Emmanuel Quayson-Sackey - Dalhousie University

Eugene Kankam - Dalhousie University

Baafour Nyantekyi-Kwakye - Dalhousie University

Topology Optimization of One-Dimensional Periodic Acoustic Metamaterial for Airborne Noise Attenuation, {156617}

Technical Paper Publication

Mohamed Shendy - University of Waterloo

Nima Maftoon - University of Waterloo

Armaghan Salehian - University of Waterloo

Design Modifications to Minimize Tip Vortex Cavitation in Marine Propellers, {157532}

Technical Paper Publication

Saman Lak - University of British Columbia

Nihar Bhardwaj Darbhamulla - University of British Columbia

Rajeev Jaiman - University of British Columbia

6/26/2025

1:30 PM to 3:00 PM - East Meeting Room 19

Chair: **ergun kuru - Univ Of Alberta**

Presentations:

Experimental Investigation of Well Cement Integrity in Decommissioned Oil and Gas Wells – The Effect of Water and Oil Contamination, {155790}, 1:30 PM - 1:52 PM

Technical Paper Publication

Ke Hu - University of Alberta

Muhammad Thaika - Sanjel Energy services

Ergun Kuru - University of Alberta

Huazhou Li - University of Alberta

Simon Iremonger - Sanjel Energy Services

Gunnar Debruijn - Sanjel Energy services

Zichao Lin - Sanjel Energy Services

On the Fast Computation of Squeeze Cementing With Multiple Perforations, {157130}, 1:52 PM - 2:14 PM

Technical Presentation Only

Hossein Rahmani - The University of British Columbia

Ian A. Frigaard - The University of British Columbia

Development of Advanced Predictive Software for Optimizing Oil and Gas Well Cementing, {157444}, 2:14 PM - 2:36 PM

Technical Presentation Only

Ndeh Akumah - University of British Columbia

Soheil Akbari - University of British Columbia

Mahdi Izadi - University of British Columbia

Mariana Carrasco-Teja - University of British Columbia

Ian Frigaard - University of British Columbia

In-Situ Gas Generation Techniques to Enhance Primary Cementing, {156112}, 2:36 PM - 2:58 PM

Technical Paper Publication

Khaled Alturkey - Aramco

Abdullah Yami - Aramco

Vikrant Wagle - Saudi Aramco

Saif Sendi - Aramco

6/26/2025

1:30 PM to 3:00 PM - East Meeting Room 10

Chair: **Zhimin Tan - Baker Hughes**

Presentations:

Influence on the Mechanical Characteristics of Dynamic Power Cable From Internal Temperature Fluctuations Caused by Power Transmission, {156155}, 1:30 PM - 1:52 PM

Technical Paper Publication

Jonas W. Ringsberg - Chalmers University of Technology

Josef Heidinger - University of Strathclyde

Hermes Siran - University of Strathclyde

Ben Hamilton - University of Strathclyde

Zhiyuan Li - Chalmers University of Technology

Numerical Investigation of Bundled Subsea Power Cables Bending Stiffness, {156253}, 1:52 PM - 2:14 PM

Technical Paper Publication

Panagiotis Delizisis - Asso.subsea

George Georgopoulos - Asso.subsea

Anastasios Kopanidis - Asso.subsea

Angelina Pytharoulidou - Asso.subsea

AI-Driven Approach to Subsea Cable Lay Operability: An LSTM Neural Network for Predicting Cable Dynamic Responses, {156352}, 2:14 PM - 2:36 PM

Technical Paper Publication

Javier Riverola Calavia - Jan de Nul Group

Bart Ledoux - Jan De Nul Group

6/26/2025

1:30 PM to 3:00 PM - East Meeting Room 15

Chair: Krish Thiagarajan Sharman -

Chair: Narakorn Srinil -

Presentations:

Analysis of Key Operating Parameters for Water Electrolysis Integrated With Offshore Wind Power, {156485}, 1:30 PM - 1:52 PM

Technical Paper Publication

Portia Minnah - Memorial University of Newfoundland

Kevin Pope - Memorial University of Newfoundland

Comparing Multi-Fidelity Modelling Approaches for Articulated Tug Barge Motions and Pin Loads in Wave Conditions, {157371}, 1:52 PM - 2:14 PM

Technical Paper Publication

Maarten van der Leij - Maritime Research Institute Netherlands

Judith Dupont - Carbon Collectors

Robin Van Der Hulst - Maritime Research Institute Netherlands

Frédéric Jaouën - Maritime Research Institute Netherlands

Bridging the Gap: Organisational Perceptions and Adoption Strategies for Digital Twins and Geological Hydrogen Storage in the Energy Transition, {157379}, 2:14 PM - 2:36 PM

Technical Paper Publication

Ayşe Yilmaz - The University of Edinburgh, IDCORE

Sally O'Brien - SSE Thermal

Philipp Thies - University of Exeter

Prodip Das - The University of Edinburgh

Erkan Oterkus - University of Strathclyde

Julia Race - University of Strathclyde

Modular Design Approach for Multi-Purpose Floating Platforms Under Consideration of Production Efficiency and Scalability, {154837}, 2:36 PM - 2:58 PM

Technical Presentation Only

Hauke Hartmann - GICON

Shayan Bahrololoum - GICON

Johannes Wahrendorf - GICON

Frank Adam - GICON

Jochen Großmann - GICON

6/26/2025

1:30 PM to 3:00 PM - East Meeting Room 8

Chair: **Solomon Yim** -

Presentations:

LES Analysis of Vortex-Vortex Interaction and Associated Acoustic Signatures, {156118}, 1:30 PM - 1:52 PM

Technical Paper Publication

Zehao Sun - Newcastle University

Weichao Shi - Newcastle university

Ben Wetenhall - Newcastle University

Optimization of Propeller Boss Cap Fin Design Using Surrogate-Based Model and CFD Simulation, {157189}, 1:52 PM - 2:14 PM

Technical Paper Publication

Xiaoqin Zhang - Institute of high performance computing

Jichao Li - School of Aeronautics, Northwestern Polytechnical University, National Key Laboratory of Aircraft Configuration Design

Xiuqing Xing - Institute of high performance computing

Chang Wei Kang - Institute of high performance computing

Boon Tat Chia - Mencast Marine Pte Ltd

Xinying Liang - Mencast Marine Pte Ltd

Integrated Four Quadrant Propeller Maneuvering Model and Power Systems for Twin-Shaft Ships, {157473}, 2:14 PM - 2:36 PM

Technical Paper Publication

Omotayo Oladele - Virginia Tech

Stefano Brizzolara - Virginia Tech

James Langston - Florida State University

Mark Stanovich - Florida State University

6/26/2025

1:30 PM to 3:00 PM - East Meeting Room 14

Chair: **Krish Thiagarajan Sharman** -

Chair: **Anil Sablok - Technip Energies**

Presentations:

Experimental Modelling of Wave-Structure Interaction of a Tension Leg Floating Offshore Wind Turbine at Very Large Scale, {152170}, 1:30 PM - 1:52 PM

Technical Paper Publication

Christian Windt - Technische Universität Braunschweig

Nils Goseberg - Technische Universität Braunschweig

Stefan Schimmels - Coastal Research Centre (FZK), Leibniz University Hannover and Technische Universität Braunschweig

Vinay Vanjakula - GICON - Großmann Ingenieur Consult GmbH

Frank Adam - GICON - Großmann Ingenieur Consult GmbH

Time Domain Ultimate Buckling Limit State Assessment of a 15MW FOWT Substructure Using FLOWStress, {155319}, 1:52 PM - 2:14 PM

Technical Paper Publication

GiTae Kim - Inha University

Sungjun Park - Inha university

Joonmo Choung - Inha university

Physics-Guided Spatial-Temporal Graph Neural Network for Finite Element Surrogate Modelling of a Floating Offshore Wind Turbine With Wind-Wave Load Directionality Effect, {155626}, 2:14 PM - 2:36 PM

Technical Paper Publication

Kobe Hoi-Yin Yung - University of Strathclyde

Qing Xiao - University of Strathclyde

*Xiuqing Xing - Agency for Science, Technology and Research (A*STAR)*

Atilla Incecik - University of Strathclyde

*Chang Wei Kang - Agency for Science, Technology and Research (A*STAR)*

WindFloat FC: A Four-Column Floating Wind Turbine Foundation - Part II - Structural Design and Analysis, {157478}, 2:36 PM - 2:58 PM

Technical Paper Publication

*Ishan Sharma - Principle Power Inc.
Bruce Martin - Principle Power Inc.
Nathan Vandervaeren - Principle Power Inc.
Sara Jabbarizadeh - Principle Power Inc.
Matthew Landberg - Principle Power Inc.
Cyril Godreau - Principle Power Inc.
Seth Price - Principle Power Inc.
Antoine Peiffer - Principle Power Inc.*

6/26/2025

1:30 PM to 3:00 PM - East Meeting Room 13

Presentations:

Real-Time Reliability Analysis of a Floating Offshore Wind Turbine Using Bayesian Model Updating, {156213}, 1:30 PM - 1:52 PM

Technical Presentation Only

*Ding Peng Liu - National University of Singapore
Ying Min Low - National University of Singapore
Lance Manuel - The University of Texas at Austin*

Comprehensive Structural Monitoring Using the Full-Field Expansion Matrix, {157347}, 1:52 PM - 2:14 PM

Technical Presentation Only

*Ye-Jin Kim - Korea Maritime and Ocean University
Seung-Hwan Boo - Korea Maritime and Ocean University
San Kim - Gyeongsang National University
Chaemin Lee - Chungbuk National University*

6/26/2025

1:30 PM to 3:00 PM - East Meeting Room 9

Presentations:

Updated Free Span Response Near the Seabed, {156153}, 1:30 PM - 1:52 PM

Technical Paper Publication

*Mario Caruso - DNV
Oddrun Steinkjer - DNV*

Advancements in Vortex-Induced Vibration Fatigue Prediction for Subsea Pipeline Free Spans: Research Progress From the TIDE Research Hub, {156552}, 1:52 PM - 2:14 PM

Technical Paper Publication

*Hongwei An - University of Western Australia
Mohammed Abdelsalam - The University of Western Australia
Luh Adnyani - The University of Western Australia
Vasileios Papavasileiou - The University of Western Australia
Bingchang Zhang - The University of Western Australia
Maryam Abdolahpour - The University of Western Australia
Zhechen Hou - The University of Western Australia
Hongyi Jiang - The University of Western Australia
Fraser Bransby - The University of Western Australia
Scott Draper - The University of Western Australia
Ali Karrech - The University of Western Australia
Phil Watson - The University of Western Australia*

Investigation of Vortex-Induced Vibrations in Realistic Boundary Conditions, {157116}, 2:14 PM - 2:36 PM

Technical Paper Publication

*Maryam Abdolahpour - The University of Western Australia
Scott Draper - University of Western Australia
Hongwei An - University of Western Australia*

Ali Karrech - The University of Western Australia
Phillip Watson - The University of Western Australia

Probabilistic Approach for Predicting Pipeline End Loads in Short HPHT Deep-Water Flowlines, {157399}, 2:36 PM - 2:58 PM

Technical Paper Publication

Carlos Ingar Valer - TechnipFMC Brazil
Qiang Bai - TechnipFMC U.S.A.
Endryws Moura - TechnipFMC Brazil
Rodrigo Primieri - TechnipFMC Brazil

6/26/2025

3:30 PM to 5:00 PM - East Meeting Room 19

Chair: **ergun kuru - Univ Of Alberta**

Presentations:

Supersonic Flow Conditions During Gas-In-Riser Unloading and Implications, {152650}, 3:30 PM - 3:52 PM

Technical Paper Publication

Abiruddin Kazi - University of Stavanger
Mario Ledes Mascarenhas Resende Teixeira - Equinor
Kjell Kåre Fjelde - University of Stavanger

Cement Bond Quality Prediction Based on Wide and Deep Neural Networks, {157083}, 3:52 PM - 4:14 PM

Technical Paper Publication

Zheng Wang - China University of Petroleum (Beijing)
Xianzhi Song - College of Petroleum Engineering
Ergun Kuru - University of Alberta
Gunnar Debruijn - Sanjel Energy Services Calgary
Huazhou Li - University of Alberta
Jiawei Yu - China University of Petroleum (Beijing)

Improving Well Integrity Assessment Through the Feature, Event and Process (FEP) Methodology Applied to Each Wellbore Barrier, {157110}, 4:14 PM - 4:36 PM

Technical Paper Publication

Catalin Teodoriu - University of Oklahoma
Khizar Abid - University of Oklahoma

6/26/2025

3:30 PM to 5:00 PM - East Meeting Room 14

Chair: **Krish Thiagarajan Sharman -**

Presentations:

Inerter Enhanced Tuned Mass Damper for Vibration Mitigation of Floating Wind Turbines, {156251}, 3:30 PM - 3:52 PM

Technical Paper Publication

Hang Zhang - Shanghai Jiao Tong University
Binrong Wen - Shanghai Jiao Tong University
Yuejian Xu - Shanghai Jiao Tong University
Xinliang Tian - Shanghai Jiao Tong University
Xiaofan Li - The University of Hong Kong
Wei Zhang - China Power Investment Xinjiang Energy and Chemical Industry Group Bozhou Co., Ltd.
Zhike Peng - Ningxia University

Design of Fatigue Binning Methods From Hindcast Metocean Data for Offshore Wind Turbine Simulations, {156842}, 3:52 PM - 4:14 PM

Technical Paper Publication

Yu Wang - Ocergy Inc
Khalil Beltaifa - Ocergy Inc.
Chao Wang - Ocergy Inc.
Begnati Heguiaphal - Ocergy Inc.
Alexia Aubault - Ocergy Inc.

Nicholas Lukan - Ocergy Inc.

Quantifying the Effect of Two-Dimensional Wave Spectra on Floating Offshore Wind Turbine Fatigue, {156263}, 4:14 PM - 4:36 PM
Technical Paper Publication

Stian Brurås - 4Subsea

Lars Frøyd - 4Subsea

Numerical Modelling and Analysis on Optimized Ballast Condition of a 15MW Semi-Submersible Floating Wind Turbine, {156205}, 4:36 PM - 4:58 PM

Technical Paper Publication

Changen Li - Shanghai Jiao Tong University

Peng Chen - Shanghai Jiao Tong University

Shi Deng - Offshore Oil Engineering Co., Ltd. (CNOOC Engineering)

Shuaishuai Wang - Norwegian University of Science and Technology

Gareth Erfort - University of Stellenbosch

Zhengshun Cheng - Shanghai Jiao Tong University

6/26/2025

3:30 PM to 5:00 PM - East Meeting Room 9

Presentations:

Residual Curvature Methodology (RCM) Application for Lateral Buckling Control on the Ultra-Deepwater Project Mero 3 in Brazil, {152142}, 3:30 PM - 3:52 PM

Technical Paper Publication

Daniel MANSO HADDAD - Subsea7

Peter Tanscheit - Subsea7

Nikolaos Chatzimanolis - Subsea7

Rafael Solano - Petrobras

Alexandre Hansen - Petrobras

Residual Curvature Zone As-Laid Roll and Out-of-Straightness, {156162}, 3:52 PM - 4:14 PM

Technical Paper Publication

Graeme Roberts - Subsea 7

Yasin Kassim - Subsea7

Alan Roy - Subsea7

Deepwater RCM and SRI Performance on Production Rigid Flowline Loops, {156605}, 4:14 PM - 4:36 PM

Technical Paper Publication

Nikolaos Chatzimanolis - Subsea7

Hossein Jalali - Subsea7

Min Xie - Subsea7

Arek Bedrossian - Subsea7

Riser Stalk-on : A Comparative Study of Analysis Results Against Real World Observations, {157159}, 4:36 PM - 4:58 PM

Technical Paper Publication

Vinod Puthiyaparambath - McDermott Middle East, Inc.

Rajesh Ramachandran - McDermott Middle East, Inc.

Chulhee Lee - McDermott Middle East, Inc.

Kurian Thomas - McDermott Middle East, Inc.

6/26/2025

3:30 PM to 5:00 PM - East Meeting Room 13

Presentations:

Punching Shear Failure Criterion for Concrete-Filled Double Skin Composite Pipeline Under Blast Loading, {157063}, 3:30 PM - 3:52 PM

Technical Presentation Only

Sumang Li - Tsinghua University

Facheng Wang - Tsinghua University

Active Learning Kriging Methodology for Extreme Ship Response Estimation, {157231}, 3:52 PM - 4:14 PM

Technical Presentation Only

Tomoki Takami - Kobe University

Masaru Kitahara - The University of Tokyo

Evaluation of Sloshing Activity Based on Event Rate in a Full-Scale Vessel, {157360}, 4:14 PM - 4:36 PM

Technical Presentation Only

Ki Jong Kim - Samsung Heavy Industries

Seongmin Woo - Samsung Heavy Industries

Rae-Hyoung Yuck - Samsung Heavy Industries

Yong-Chul Lee - Samsung Heavy Industries

6/26/2025

3:30 PM to 5:00 PM - East Meeting Room 15

Presentations:

A System Investigation of Tidal Stream Energy Resource in Singapore, {155165}, 3:30 PM - 3:52 PM

Technical Presentation Only

Ying Min Low - National University of Singapore

Yi Wen - National University of Singapore

The Effect of Different Shapes of the Nozzle-Diffuser Duct Used for for an Innovative Wave Energy Conversion System, {157522}, 3:52 PM - 4:14 PM

Technical Presentation Only

Po-Hung Yeh - Dept. of Marine Environment and Engineering, National Sun Yat-sen University

Sheng-Chi Chang - Dept. of Marine Environment and Engineering, National Sun Yat-sen University

Bang-Fuh Chen - Center of Excellence for Ocean Engineering

Shing-Nan Wu - Dept. of Marine Environment and Engineering

Numerical Investigation of Rotor Aspect Ratio Effects on an Augmented Drag-Based Hydrokinetic Turbine Performance, {156102}, 4:14 PM - 4:36 PM

Technical Paper Publication

Novi Fairindah Tingkas - Universiti Teknologi PETRONAS

Cheng Yee Ng - Universiti Teknologi PETRONAS, Malaysia

Xiang Ying Tham - Universiti Teknologi PETRONAS

Muk Chen Ong - University of Stavanger

SEE YOU NEXT YEAR!

OMAE 2026

45th International Ocean Offshore and Arctic Engineering Conference
Grand Nikko Tokyo Daiba | Grand Tokyo, Japan

June 7 – June 12, 2026

