



Hosted by



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Elizabeth Tedeschi (Norwegian University of Science and Technology)  
Edward Barbour (Univ. of Birmingham)

<https://www.osessociety.com/oses2026>

## Welcome from the Conference Chairs

Welcome to the 10th (OSES 2026), taking place in the historic and innovative city of Delft. As we celebrate this milestone edition of OSES, we do so at a critical time for the global energy transition, where offshore renewable energy and advanced energy storage technologies are becoming increasingly important in delivering secure, resilient, and low-carbon energy systems.

Over the past decade, OSES has evolved into an important international forum bringing together researchers, industry leaders, policymakers, and technology developers working across the offshore energy sector. This year's programme reflects the multidisciplinary nature of the field, with contributions spanning offshore wind, floating energy systems, wave and tidal energy, hydrogen technologies, compressed-air and gravity-based energy storage, batteries, offshore electrification, artificial intelligence applications, hybrid offshore energy systems, and maritime decarbonisation.

OSES 2026 celebrates more than ten years of collaboration, scientific exchange, and technological innovation. The symposium features contributions from experts across academia and industry, presenting advances in engineering design, numerical modelling, prototype development, environmental assessment, and energy policy.

We hope OSES 2026 provides an inspiring platform for discussion, networking, and the development of new partnerships and research initiatives. On behalf of the organising committee, we thank all authors, speakers, sponsors, reviewers, exhibitors, and participants for contributing to OSES 2026, and we wish you a productive and memorable symposium.



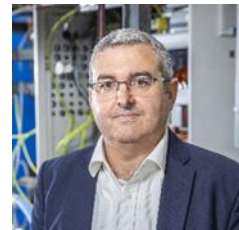
Antonio Jarquin Laguna



Seamus Garvey



Rupp Carriveau



Tonio Sant



Antonio Marco Pantaleo



Jochen Bard

## Programme at a Glance

Wednesday, 8 <sup>th</sup> July 2026	Thursday, 9 <sup>th</sup> July 2026	Friday, 10 <sup>th</sup> July 2026						
<b>Registration:</b> 08:00 – 9:30 Venue: TUDelft Faculty of Mechanical Engineering								
<p style="text-align: center;"><b>Welcome Speeches</b> 8:30 - 9:00</p> <p style="text-align: center;"><b>OSES2026 Chair, Dr. Antonio Jarquin Laguna</b>  <b>OSES Founders, Prof. Seamus Garvey &amp; Prof. Rupp Carriveau</b>  <b>Dean ME, Prof. Fred van Keulen</b>                      Hall A - Leonardo da Vinci</p>	<p style="text-align: center;"><b>Keynote 4:</b> 08:30 - 09:00  <b>Feargal Brennan</b>                      Hall A - Leonardo da Vinci</p>	<p style="text-align: center;"><b>Keynote 6:</b> 09:00 - 09:30  <b>Benjamin Lehner</b>                      Hall A - Leonardo da Vinci</p>						
<p style="text-align: center;"><b>Keynote 1:</b> 9:00 – 9:30  <b>Jan-Willem van Wingerden</b>                      Hall A - Leonardo da Vinci  <i>Coffee break: 9:30-10:00</i></p>	<p style="text-align: center;"><b>Session 5:</b> 09:00 - 10:00  <b>Integration and System Economics II</b>                      Hall A - Leonardo da Vinci</p> <p style="text-align: center;"><i>Coffee break: 10:00-10:30</i></p>	<p style="text-align: center;"><b>Session 8:</b> 9:30 – 10:30  <b>Marine Energy</b>                      Hall A - Leonardo da Vinci</p> <p style="text-align: center;"><i>Coffee break: 10:30-11:00</i></p>						
<p style="text-align: center;"><b>Session 1:</b> 10:00 - 11:00  <b>Offshore Energy Storage</b>                      Hall A - Leonardo da Vinci</p>								
<p style="text-align: center;"><b>Session 2:</b> 11:00 - 12:00</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"> <p style="text-align: center;"><b>Hydrogen I</b></p> <p style="text-align: center;">Venue: Hall A - Leonardo da Vinci</p> </td> <td style="width: 50%; border: none;"> <p style="text-align: center;"><b>Compressed Air Energy Storage I</b></p> <p style="text-align: center;">Hall B - Isaac Newton</p> </td> </tr> </table>	<p style="text-align: center;"><b>Hydrogen I</b></p> <p style="text-align: center;">Venue: Hall A - Leonardo da Vinci</p>	<p style="text-align: center;"><b>Compressed Air Energy Storage I</b></p> <p style="text-align: center;">Hall B - Isaac Newton</p>	<p style="text-align: center;"><b>Session 6:</b> 10:30 - 12:00</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"> <p style="text-align: center;"><b>Hydrogen II</b></p> <p style="text-align: center;">Hall A - Leonardo da Vinci</p> </td> <td style="width: 50%; border: none;"> <p style="text-align: center;"><b>Offshore Wind II</b></p> <p style="text-align: center;">Hall B - Isaac Newton</p> </td> </tr> </table>	<p style="text-align: center;"><b>Hydrogen II</b></p> <p style="text-align: center;">Hall A - Leonardo da Vinci</p>	<p style="text-align: center;"><b>Offshore Wind II</b></p> <p style="text-align: center;">Hall B - Isaac Newton</p>	<p style="text-align: center;"><b>Session 9:</b> 11:00 - 12:00</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"> <p style="text-align: center;"><b>Hydrogen III</b></p> <p style="text-align: center;">Hall A - Leonardo da Vinci</p> </td> <td style="width: 50%; border: none;"> <p style="text-align: center;"><b>Compressed Air Energy Storage II</b></p> <p style="text-align: center;">Hall B - Isaac Newton</p> </td> </tr> </table>	<p style="text-align: center;"><b>Hydrogen III</b></p> <p style="text-align: center;">Hall A - Leonardo da Vinci</p>	<p style="text-align: center;"><b>Compressed Air Energy Storage II</b></p> <p style="text-align: center;">Hall B - Isaac Newton</p>
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Wednesday, 8 <sup>th</sup> July 2026	Thursday, 9 <sup>th</sup> July 2026	Friday, 10 <sup>th</sup> July 2026
<b>Lunch:</b> 12:00 - 13:00	<b>Lunch:</b> 12:00 - 13:00	<b>Lunch:</b> 12:00 - 13:00
<b>Keynote 2: 13:00 - 13:30</b> <b>Sarah Barber</b> Hall A - Leonardo da Vinci	<b>Keynote 5: 13:00 - 13:30</b> <b>Matthijs Soede</b> Hall A - Leonardo da Vinci	<b>Session 10: 13:00 - 14:30</b> <b>Maritime decabornisation</b> <b>Hydro-pump storage</b> Hall A - Leonardo da Vinci      Hall B - Isaac Newton
<b>Session 3: 13:30 - 14:30</b> <b>Offshore Wind I</b> <b>New Energy Storage</b> Hall A - Leonardo da Vinci      Hall B - Isaac Newton  <i>Coffee break: 14:30-15:00</i>	<b>Session 7: 13:30 - 15:00</b> <b>Integration and System Economics III</b> <b>Cross-sector &amp; policy</b> Hall A - Leonardo da Vinci      Hall B - Isaac Newton  <i>Coffee break: 15:00-15:30</i>	<b>OSES 2026 Closeout</b> 14:35 – 15:00
<b>Keynote 2: 15:00 - 15:30</b> <b>Joris Koornneef</b> Hall A - Leonardo da Vinci	<b>Industry panel</b> <b>Industry Panel: 15:30 - 17:00</b> Hall A - Leonardo da Vinci	
<b>Session 4: 15:30 - 16:30</b> <b>Integration and System Economics I</b> <b>Floating systems</b> Hall A - Leonardo da Vinci      Hall B - Isaac Newton	<b>18:30 onwards</b> <b>Conference Banquet</b>	
<b>Welcome Reception: 17:00 - 19:00</b>		

# DETAILED PROGRAMME

## Day 1 - Wednesday, 8<sup>th</sup> July 2026

**Registration:** 08:00 – 9:30

Venue: TUDelft Faculty of Mechanical Engineering – Foyer lecture halls A and B

### Welcome Speeches

8:30 - 9:00

**OSES 2026 Chair, Dr. Antonio Jarquin-Laguna**  
**OSES Founders, Prof. Seamus Garvey & Prof. Rupp Carriveau**  
**Dean Mechanical Engineering faculty TUDelft, Prof Fred van Keulen**

Lecture Hall A – “Leonardo da Vinci”

### Keynote 1

9:00 – 9:30

Venue: Lecture Hall A – “Leonardo da Vinci” Session Chair: Antonio Jarquin Laguna (TU Delft)

**Jan Willem van Wingerden**

***“Wind farm flow control”***



Jan-Willem van Wingerden was born in Ridderkerk, The Netherlands, in 1980. He received the M.Sc. degree in mechanical engineering and the Ph.D. degree (both cum laude) in control engineering from the Delft Center for Systems and Control, Delft University of Technology, Delft, The Netherlands, in 2004 and 2008, respectively. Since 2017 he is a full Professor with the Delft University of Technology. His current research interests include the development of data-driven controllers for wind turbines wind farms, and cluster wakes.

**Refreshments:** 9:30 - 10:00

foyer ME, in front of lecture rooms A and B

<b>Session 1: 10:00 – 11:00</b>	
<b>1. Offshore Energy Storage</b> <b>Chair: Bart Klootwijk</b> Lecture Hall A – “Leonardo da Vinci”	
The Effect of Different Operational Strategies and Storage Applications for Offshore Hybrid Plants in Sub-hour Resolution D. Ntagkras, TNO, Netherlands	
Improving the System-Level Value of Offshore Wind with Energy Storage. V. O. Bonnin, DMEC, Netherlands	
Impact of Electricity Price Volatility and Wind Variability on the Operation of a Subsea Hydro-Pneumatic Energy Storage System Integrated with an Offshore Wind Farm Keith Thomas Borg, University of Malta, Malta	
<b>Session 2: 11:00 – 12:00</b>	
<b>2A. Hydrogen I</b> <b>Chair: Rupp Carriveau</b> Venue: Lecture Hall A – “Leonardo da Vinci”	<b>2B. Compressed Air Energy Storage I</b> <b>Chair: Alexander White</b> Venue: Lecture Hall B – “Isaac Newton”
Non-Linear Phase Transition Dynamics in Offshore Green Hydrogen Production: A Multi-Objective Optimization Framework for System Design Under Metocean Uncertainty Owais Ahmad, University of Victoria, Canada	CAPEX Analysis of small-scale modular Compressed Air Energy Storage D. Walker, University of Birmingham, UK
Offshore Solar for Enhanced Offshore Hydrogen Production in the North Sea A. Martín-Gil, TNO, Netherlands	How thermal storage temperature affects the design of ACAES systems Edward Barbour, University of Birmingham, UK
Offshore vs Onshore production of green hydrogen A. Ferraresea, Politecnico di Torino, Italy	Monopile-Integrated Isothermal Compressed Air Energy Storage for Offshore Wind Farms Eric Loth, University of Virginia, USA
<b>Lunch: 12:00 - 13:00</b>	

## Keynote 2

13:00 – 13:30

Venue: Lecture Hall A – “Leonardo da Vinci”

**Sarah Barber**

### *“The opportunities of digitalisation in offshore energy and storage”*



Sarah Barber is Head of the Wind Energy Innovation Division at the Eastern Switzerland University of Applied Sciences and is founder and president of the Swiss Wind Energy R&D Network. She is a lecturer in wind energy at the universities of St. Gallen and Graubünden. As well as this, she is a qualified Business Coach and runs leadership workshops for engineers in her spare time. She recently become Chair of the Diversity Committee at the European Academy of Wind Energy. Sarah has a joint M.Eng. in Aerospace Engineering from the University of Cambridge (UK) and MIT (USA) and a Ph.D. in Aerodynamics from the University of Sheffield (UK). She has been active in the R&D of wind energy since 2007, as a Postdoc and Lecturer at ETH Zurich, Wind Energy Expert at BKW Energie AG, Chief Technology Officer at Agile Wind Power AG (CH) and Group Manager at Fraunhofer IWES (DE).

## Session 3: 13:30 – 14:30

### 3A. Offshore Wind I

Chair: Jenna Iori

Venue: Lecture Hall A – “Leonardo da Vinci”

RingPool: A Novel Lightweight Floating Offshore Wind Platform Concept  
Eric Loth, University of Virginia, USA

Interpretable Reconstruction-Based Fault Detection in Offshore Wind Turbines using  
Autoencoder Architectures  
T. Ancora, Sapienza University of Rome, Italy

Safeguarding the Deep: Advanced Techniques for High Voltage Submarine Cable  
Installation and Protection in Sensitive Marine Environments  
N. Nobile, RINA, Italy

### 3B. New Energy Storage

Chair: Tonio Sant

Venue: Lecture Hall B – “Isaac Newton”

A Physics-Based model for Evaluating Vortex-Induced Vibration Effects in Subsea  
Gravity Energy Storage Systems.  
Andre Novgorodcev Jr., Delft University of Technology, Netherlands

Water-to-Wire Model for a Novel Underwater Pumped Hydro Storage System  
R. M. Nienhuis, University of Groningen, Netherlands

Comparison of CO<sub>2</sub> and Ammonia-based Adsorption and Liquefaction Energy Storage  
Alexander White, University of Cambridge, UK

## Refreshments: 14:30 - 15:00

foyer ME, in front of lecture rooms A and B

### Keynote 3

15:00 – 15:30

Venue: Lecture Hall A – “Leonardo da Vinci”

**Joris Koornneef**

*Title to be confirmed*



Joris Koornneef has a background in Science & Innovation Studies researching the social, technical and economic success/fail factors for energy technologies. He is a senior energy strategy consultant for TNO with a focus on (offshore) system integration and (subsurface) energy storage. He is the scientific lead and responsible for the scientific coordination and alignment of projects within the North Sea Energy programme. This is an industry-driven Shared Innovation Program that connects the various offshore energy sectors and broader stakeholder community. North Sea Energy has clear goals focusing on gathering and developing specific knowledge and technology for offshore system integration regarding electricity, hydrogen, hydrocarbons and carbon capture & storage in the North Sea.

### Session 4: 15:30 – 16:30

#### 4A. Integration and System Economics I

Chair: Javier Fatou Gómez

Venue: Lecture Hall A – “Leonardo da Vinci”

#### 4B. Floating systems

Chair: Olivier Lodeho

Venue: Lecture Hall B – “Isaac Newton”

Future Electricity (Capture) Prices Simulations with the linear regression model  
Anton Schaap, DMEC, Netherlands

Deep Learning-Based Mooring Tension Monitoring for Floating Offshore Wind Turbine  
Yu-Chen Lin, National Cheng Kung University, Taiwan

Methodological Challenges in LCOE Assessment of Offshore Renewable Hybrid Systems  
within Technology Specific Incentive Frameworks: An Italian Case Study  
F. Lanni, RSE SpA, Italy

Wave-Induced Fatigue Load Amplification in Floating Offshore Wind Turbines  
L. Gurnari, Polytechnic of Bari, Italy

Quantifying model-attributable uncertainty in offshore energy investment  
recommendations: A systematic comparison of OSeMOSYS and PyPSA  
Arushi Sinha, Imperial College London, UK

Experimental Assessment of the Wave-Induced Response of a 2-by-2 Modular VLFS  
K. Álvarez Castillo, Delft University of Technology, Netherlands

**Welcome Reception 17:00 – 19:00**  
**(off-site)**

## Day 2 - Thursday, 9<sup>th</sup> July 2026

**Registration:** 08:00 – 9:30

Venue: TUDelft Faculty of Mechanical Engineering – Foyer lecture halls A and B

### **Keynote 4**

08:30 – 09:00

Venue: Lecture Hall A – “Leonardo da Vinci”

#### **Feargal Brennan**

#### ***“Colocation offshore and Whole Energy System Considerations”***



Feargal Brennan is the James Blyth Distinguished Professor of Offshore Engineering at the University of Strathclyde and Fellow of the Royal Academy of Engineering. He is Research Director of the Wind & Marine Systems and Structures (WAMSS) Centre for Doctoral Training. He is a Director and the Offshore Wind Champion for the EPSRC Supergen Offshore Renewable Energy Programme, Principal Investigator of Ocean REfuel and Co-Investigator of the CoTide UKRI/EPSC Programmes. He is a member of the UK Government Department of Energy Security and Net Zero STAC (Science and Technology Advisory Council) among other advisory roles both nationally and internationally. He is the UK standing member and leader of the UK delegation to the ISSC (International Ship and Offshore Structures Congress) and has served as expert witness for commercial offshore wind litigation cases at the High Court in London and the London Court of International Arbitration.

### **Session 5:** 9:00 - 10:00

#### **5. Integration and System Economics II**

**Chair: Bart Klootwijk**

Lecture Hall A – “Leonardo da Vinci”

Energy Storage for a 100% Renewable Powered Irish Grid

Bruno Cardenas, University of Nottingham, UK

Improving an Offshore Wind Farm Business Case by Adding Offshore Energy Storage: Example of Dutch IJmuiden Ver Gamma Tender

Daniel Buhagiar, FLASC B.V., Netherlands

Assessment of Lithium-Ion Battery Storage for Offshore Wind Energy Arbitrage in Germany

G. Kouam, DLR, Germany

**Refreshments:** 10:00 – 10:30  
foyer ME, in front of lecture rooms A and B

**Session 6:** 10:30 – 12:00

**6A. Hydrogen II**

**Chair: Javier Fatou Gómez**

Venue: Lecture Hall A – “Leonardo da Vinci”

**6B. Offshore Wind II**

**Chair: Chris Niezrecki**

Venue: Lecture Hall B – “Isaac Newton”

Exploring Flexibility through Modular Electrolysis: A Techno-economic Analysis and Optimization of an Offshore-Onshore Hybrid Power Plant

G. Jayashankar, TNO, Netherlands

CFD-based prediction of FULL-SCALE TOWING RESISTANCE of bluff bodies through FULL DYNAMIC SIMILARITY

M. Zammit, University of Malta, Malta

Water–Energy Trade-Offs in Offshore Hydrogen Platforms Involving Atmospheric Water Generation

Julio Garcia-Navarro, TNO, Netherlands

Assessment of a Single Phase CFD Method for Towing Resistance Quantification of a Floating Offshore Wind Turbine

N. Scerri, University of Malta, Malta

CFD Analysis of a Cooling System for Solid State Hydrogen Storage Tanks for Offshore Applications

Barbieri, Polytechnic University of Bari, Italy

Quantifying Energy Gains from Dynamic Positioning of Floating Wind Turbines Using a CFD-Based Actuator Disc Model

K. Zammit, University of Malta, Malta

Sizing Thermal Storage and Heat Transfer for a 15MW WindTP System.

Seamus Garvey, University of Nottingham, UK

**Lunch:** 12:00 - 13:00

## Keynote 5

13:00 – 13:30

Venue: Lecture Hall A – “Leonardo da Vinci”

**Matthijs Soede**

*Title to be confirmed*



Matthijs Soede studied at the Delft University of Technology and has a PhD in Chemical Engineering. He began his career at the Ministry of Economic Affairs in the Netherlands, as specialist in international research cooperation. In 2008 he joined the European Commission in DG Research and Innovation as policy officer in Industrial Technologies and moved in 2012 to Clean Energy Transitions being responsible for renewable energy technologies. He has been director of the Mission Innovation Clean Hydrogen Mission and currently member of the IEA Committee for Energy Research and Technology, the IEA Renewable Energy Working Party, and since 2023 Chair of the executive committee of the IEA Technology Collaboration Programme on Ocean Energy Systems and member of the IEA Technology Collaboration Programmes on Wind Energy and Energy Storage.

## Session 7: 13:30 - 15:00

### 7A. Integration and System Economics III

Chair: **Seamus Garvey**

Venue: Lecture Hall A – “Leonardo da Vinci”

### 7B. Cross-sector & Policy

Chair: **Daniel Buhagiar**

Venue: Lecture Hall B – “Isaac Newton”

Cost-Modelling Approach of Containerized Offshore Battery Energy Storage System for Hybrid Wind Farms

V. O. Bonnin, DMEC, Netherlands

A Safety-by-Design Approach to the Multi-Use MUSICA Platform

I. Progoulakis, University of the Aegean, Greece

Multi-Objective Design Optimization of Offshore Hybrid Wind–Solar–Storage Systems: a Mediterranean case study

F. Superchi, University of Florence, Italy

Monitoring marine soundscapes around offshore solar installations: Observations of sound and biological activity

B. Vlaswinkel, Oceans of Energy, Netherlands

A Python Based Design and Analysis Tool for Utility Scale Power Systems with Wind, Photovoltaic, and Energy Storage Components

J. Manwell, University of Massachusetts Amherst, USA

Life Cycle Assessment of integrated offshore variable frequency driver and piston module pump with storage duration comparison

N. A. Dewi, DMEC, Netherlands

Co-optimization of Costs and Curtailment in Hybrid Wind-Hydrogen Powered Microgrids: Understanding the Impact of Overbuilding

C. Niezrecki, University of Massachusetts Lowell, USA

Adaptive Agentic Interaction for Energy Negotiation: Integrating Situational Awareness and Social Dynamics

M. Rezamand, University of Windsor, Canada



**OSES 2026**  
Offshore Energy &  
Storage Symposium

**Refreshments:** 15:00 – 15:30

foyer ME, in front of lecture rooms A and B

**Industry Panel Discussion :** 15:30 - 17:00

Chair: tbc

Co-Chair: Seamus Garvey

Venue: Lecture Hall A – “Leonardo da Vinci”

***UNDER PREPARATION***

18:30 onwards

**Conference Banquet**

**Venue:**



**OSES 2026**  
Offshore Energy &  
Storage Symposium

## Day 3 - Friday, 10<sup>th</sup> July 2026

**Registration:** 08:00 – 9:30

Venue: TUDelft Faculty of Mechanical Engineering – Foyer lecture halls A and B

### Keynote 6

09:00 – 09:30

Venue: Lecture Hall A – “Leonardo da Vinci”

#### Benjamin Lehner

#### ***“The 2050 Offshore Energy System: New Technologies, Multi-Source Parks, and the Country Specific System to enable it”***

Benjamin Lehner is the CEO of DMEC an international knowledge centre and accelerator for offshore renewable energy & sustainability innovations. At DMEC he initiated the biggest European Green Deal demonstration project on wave and offshore solar energy, is actively advising five European governments on their offshore energy strategy and has worked with a large number of start-ups in the sector. Before joining DMEC, Benjamin founded a start-up on delocalised carbon capture and storage (CCS). He holds a PhD from Delft University of Technology in collaboration with NASA and ESA on the interface of synthetic biology, nano materials and space flight. He completed an executive MBA between Rotterdam School of Management and University of Cologne Business School, comparing the corporate governance of non-profit and for-profit organisations, as well as a Master & Bachelor degree in Biology from the University of Salzburg, with a focus on radiation and physiology.



**Session 8:** 9.30 – 10:30

### 8. Marine Energy

**Chair: Antonio Jarquin Laguna**

Lecture Hall A – “Leonardo da Vinci”

Performance of AE Wave Hexapod Configurations Around a Monopile

R. Shenoj, AE Group, Netherlands

Hydraulic Coupling of Heaving and Surge Wave Energy Converters to Reverse Osmosis for Seawater Desalination: A Numerical Study across Sea States

Pranjal Bhushan, Delft University of Technology, Netherlands

Techno-economic Analysis of Axial Flow Current Turbines Applied to the US Virgin Islands

J. Aubain, University of Massachusetts Amherst, USA

**Refreshments:** 10:30 – 11:00

foyer ME, in front of lecture rooms A and B

<b>Session 9: 11:00 – 12:00</b>	
<b>9A. Hydrogen III</b> <b>Chair: Seamus Garvey</b> Venue: Lecture Hall A – “Leonardo da Vinci”	<b>9B. Compressed Air Energy Storage II</b> <b>Chair: Edward Barbour</b> Venue: Lecture Hall B – “Isaac Newton”
Using Hydrides to Significantly Improve the Buffer Hydrogen Storage Capacity in Offshore Green Hydrogen Production Marcus Adams, University of Nottingham, UK	An Experimental Investigation of the Air Compression Process Using an Inclined Liquid Piston B. Abela, University of Malta, Malta
Influence of Pd/Ni Bimetallic Catalysts on Performance and Structure of Titanium Felt-Based PEM Fuel Cells Hung-Hao Liao, National Chin-Yi University of Technology, Taiwan	Analysis of the Thermodynamic Performance of a Small-Scale Liquid Piston undergoing a Discharge Cycle for use with Offshore Hydro-Pneumatic Energy Storage Systems Luke Aquilina, University of Malta, Malta
Near-Shore and Offshore Renewable Hydrogen Production for Low-Carbon Ammonia: A Techno-Economic Comparison of Electrolysis and Methane Plasmalysis R. Babaei, University of Windsor, Canada	Deep-Water UWCAES: Field Demonstration and Techno-Economic Insights from the Red Sea W. Tang, King Abdullah University of Science and Technology, Saudi Arabia
<b>Lunch: 12:00 - 13:00</b>	
<b>Session 10: 13:00 – 14:30</b>	
<b>10A. Maritime Decarbonization</b> <b>Chair: Lindert van Biert</b> Venue: Lecture Hall A – “Leonardo da Vinci”	<b>10B. Hydro-pump storage and Batteries</b> <b>Chair: Antonio Jarquin Laguna</b> Venue: Lecture Hall B – “Isaac Newton”
Peak Shaving a Shore Power System Using a Vessel-mounted Energy Storage System M. Houwing, TNO, Netherlands	Experimental investigations of the structural dynamics of a novel reversible pump-turbine for low head applications E. B. Prasasti, University of Stuttgart, Germany
System-Level Assessment of Hybrid SOFC-ICE Propulsion for Short-Sea Ferries under LNG, Hydrogen and Ammonia Operation P. Marocco, Politecnico di Torino, Italy	Impact of Frequency Containment Reserve on the Fatigue of Contra-Rotating Pump-Turbines in Low-Head Hydropower Storage Daan Truijen, Ghent University, Belgium
Safe and Practical AMMONIA BUNKERING and PORT Infrastructure Zahra Baniamerian, University of Nottingham, UK	LI-ION BESS aging mechanisms aware DIAGNOSTICS from standard charge data via BMS-EMBEDDED DIFFERENTIAL VOLTAGE ANALYSIS (DVA). Giovanni Lucà Trombetta, CNR ITAE, Italy

A Toolkit for Evaluating the Challenges of Offshore Charging Network to Reduce  
Onboard Battery Size: Case Study  
H.G. Wells, SINTEF, Norway

Uncertainty Propagation for Hybrid Power Plant Operation  
L. Antia Guisasola, Delft University of Technology, Netherlands

**OSES 2026 Closeout: 14:35 – 15:00**  
**Chair: Seamus Garvey & Rupp Carriveau**

**End of Conference**

## Venue of OSES2026

TU Delft Faculty of Mechanical Engineering  
Mekelweg 2, 2628 CD Delft,  
Netherlands

<https://www.tudelftcampus.nl/en/poi/mechanical-engineering-me>

## Conference Rooms

Welcome Speeches:

- Lecture Hall A – “Leonardo da Vinci”

Scientific Presentations

- Lecture Hall A – “Leonardo da Vinci”
- Lecture Hall B – “Isaac Newton”

## Conference Venue Map:



## Internet:

The eduroam wireless network is available across the entire campus. Temporary access to the eduroam Wi-Fi network will be given to registered participants.

## Important Notices:

All registered participants of OSES2026 must wear their name badges when attending luncheons, coffee breaks, welcome reception, and conference banquet

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