

Subsea Electrical Power and Communication Systems Conference

Wednesday 26th June 2024

GUH
PROGRAMME



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Seabed cables are a critical part of the national infrastructure for our power and communications. System and product reliability is a major focus, as is the inspection and protection of this critical underwater infrastructure. Further, the energy transition is driving the need for alternative energy sources resulting in novel technologies being brought to the market.

The underwater space is also becoming complex and congested due to a number of competing assets looking to locate on the seabed in support of the energy transition. The seabed and underwater space provides challenges, opportunities and a breeding ground for innovation.

This conference aims to bring together stakeholders and subject matter experts to discuss the challenges, share lessons learned, and present advances in technology and seabed/asset management.

Subsea Electrical Power and Communication Systems Conference



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- 08:30 Arrive for registration**
- 08:55 Welcome to GUH**
Andy Williamson, Global Underwater Hub
- 09:00 Supply Chain Accelerator – A Catalyst for UK Supply Chain Capacity and Capability**
Gregory Brown, Crown Estate
- 09:10 Dynamic Power Cables: Risk and Lifecycle Management**
Alan Dobson, TechnipFMC
- 09:30 Key Challenges and Risks for Dynamic Cables Systems in Floating Offshore Wind**
Joe Cole, JDR Cables
- 09:50 Using Alternative Inter Array Cable Layouts Coupled with Wet Mate Connectors to Solve Key Challenge for FOW**
Michael Mitchell, Siemens Energy
- 10:10 Decarbonisation from The Blue – Pushing the Boundaries via Ocean Energy Conversion**
Andrea Caio, Mocean Energy (Presenting virtually)
- 10:30 Panel Q&A session**
- 10:50 Coffee and Networking**
- 11:20 Underwater Power and Communications Delivery**
Chris Wallace, Verlume
- 11:40 Electrical Cable Failure – Protection and Lessons from Oil and Gas**
Daniel Denning, Viper Innovations
- 12:00 Addressing Subsea Challenges with Artemis Cable and Pipeline Tracking Technology**
Lindsay Smith, SMD
- 12:20 Panel Q&A session**
- 12:40 Lunch and Networking**
- 13:40 Highlighting the Importance of Cable Integrity Assessment Surveys through Acoustic Imaging**
Christopher Williams, Kraken Robotics
- 14:00 Nature Inclusive Cable Protection**
Tom Birbeck, ARC Marine
- 14:20 Renewable and SPCS Umbilical monitoring and management**
Kevin Glanville, Proserv
- 14:40 Panel Q&A session**
- 15:00 Coffee and Networking**
- 15:30 Event Closes**

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Opening Session



Welcome to GUH

Andy Williamson, Global Underwater Hub

Andy is currently Business Development Director for the Global Underwater Hub, supporting the strategic growth of the UK's underwater industry. He is an experienced commercial, major projects and economic development energy professional with a strong track record working with large corporations, start-up innovators, R&D institutes, governments, and the marine and ports industry. A passionate STEM ambassador, he is involved with various initiatives nationally and internationally that aim to encourage young people to pursue a career in support of the energy transition.



Supply Chain Accelerator – A Catalyst for UK Supply Chain Capacity and Capability

Gregory Brown, Crown Estate

Gregory Brown is Head of Research at the Crown Estate, a unique institution with a diverse remit including management of the seabed, and much of the coastline around England, Wales and Northern Ireland. He joined TCE in 2021, having spent five years in equity research, and ten years in consulting where he advised investors and industry stakeholders in the energy sector. In his time in investment banking Gregory led the European Oilfield Services research practice at Credit Suisse, and covered the sector globally for HSBC. He is particularly interested in maritime economics and the energy transition.

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Session 1



Dynamic Power Cables: Risk and Lifecycle Management

Alan Dobson, TechnipFMC

Alan is a Chartered Mechanical Engineer with a Masters in Research and a PhD in subsea robotics. For the past 30 years he has worked in technology research, development and industrialisation for TechnipFMC within the Cable and Umbilical research centre in Newcastle upon Tyne. Alan is currently Director of Product Strategy for Umbilicals, Cables, Risers and Flowlines.



Key Challenges and risks for Dynamic cable systems in Floating Offshore Wind

Joe Cole, JDR Cables

A Mechanical Engineer by training and currently Lead Engineer in the Technology Department at JDR Cable Systems specialising in dynamic power cable development. Five years of experience in submarine power cable R&D, focusing on 33kV, 66kV, and future high voltage submarine cable and their associated accessories for the offshore wind market. With a solid understanding of both static and dynamic applications in their challenging marine environments, including their detailed design and qualification requirements, Joe is passionate about advancing cable system technology helping to maintain JDR's position as a key player in the industry's evolution.

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Session 1 - Continued



Using Alternative Inter Array Cable Layouts Coupled with Wet Mate Connectors to Solve Key Challenge for FOW

Michael Mitchell, Siemens Energy

Currently a Business Development Manager working within the Electrification, Automation and Digitalisation business unit of Siemens Energy with a focus on Floating Offshore Wind. After 8 years of working in the Subsea Oil & Gas industry my focus moved towards the energy transition and more specifically using our subsea wet Mate connector portfolio to help solve the challenges of The floating offshore wind industry.



Decarbonisation from The Blue – Pushing the Boundaries via Ocean Energy Conversion

Andrea Caio, Mocean Energy (Presenting virtually)

Andrea joined Mocean in 2018, as part of a four-year industrially focused doctorate in offshore renewable energy. His research bridged performance metrics and physical modelling, linking these to the overall development process. Building on his prior product development experience, Andrea's role combines building use-cases for wave energy technology, engaging prospective stakeholders, and scoping opportunities to bring it to market. He holds a MEng in Engineering Science from Oxford University and has worked across 5 countries.

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Session 2



Underwater Power and Communications Delivery

Chris Wallace, Verlume

As Account Manager (Energy Transition) at Verlume, Chris boasts 15+ years in the energy sector, specialising in underwater technology for the last decade. Responsible for showcasing Verlume's advanced offshore intelligent energy management and energy storage solutions, he brings a wealth of experience and a compelling vision to drive the energy transition industry forward.



Electrical Cable Failure – Protection and Lessons from Oil and Gas

Daniel Denning, Viper Innovations

Daniel Denning has been involved with Viper Innovations for over a decade now, and currently sits as Engineering Manager, and is responsible for development and research of Viper Innovation's products. Dan has first-hand experience on the challenges that Viper resolves on electrical protection subsea. Dan's background is electrical, electronics and computing. He is a Chartered Engineer and obtained his 'Engineering Doctorate' from Glasgow University in 2005.



Addressing Subsea Challenges with Artemis Cable and Pipeline Tracking Technology

Lindsay Smith, SMD

15+ years' experience in subsea oil and gas/energy industry, working mainly in R&D with a focus innovative technologies and product development. PhD in Electrical and Electronic Engineering, based on Online Partial Discharge Detection of Subsea Cables using Acoustic Techniques. Studied part-time at Newcastle University.

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Session 3



Highlighting the Importance of Cable Integrity Assessment Surveys through Acoustic Imaging

Christopher Williams, Kraken Robotics

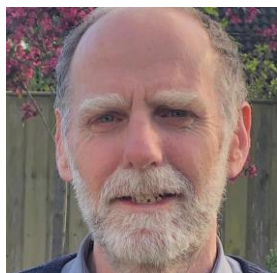
Chris graduated with a Masters Degree in Applied Marine Geoscience in 2019. He started his career as a Geophysicist at Fugro before joining Kraken Robotics in 2021 as a Geoscientist working on projects both Onshore and offshore. Chris joined the Business Development team towards the end of 2023, promoting company awareness throughout the industry.



Nature Inclusive Cable Protection

Tom Birbeck, ARC Marine

Tom is the Founder of ARC Marine a company focused on accelerating reef creation around offshore infrastructure. He has a background in commercial diving and aquaculture and has led the development of ARC Marine from a concept to growing SME in nature-based solutions and eco engineering.



Renewable and SPCS Umbilical Monitoring and Management

Kevin Glanville, Proserv



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