

National Oceanography Centre

# MARINE AUTONOMY& TECHNOLOGY SHOWCASE

#### 9-11 NOVEMBER 2021 EVENT PROGRAMME



## MATS 2021

TIME	EVENT TITLE	PRESENTER	ORGANISATION
10:00	Exhibits Open & Refreshments		
10:30	National Oceanography Centre News Daily Host welcome	Huw Gullick	National Oceanography Centre
10:40	Opening Proceedings - Prof Ed Hill CBE	Prof Ed Hill CBE	National Oceanography Centre
11:05	Keynote - Brigadier D J Cheesman MBE – Chief Technology Officer Royal Navy	Brigadier Cheesman MBE	Royal Navy
11:35	Keynote - Prof Joao Sousa Head Laboratório de Sistemas e Tecnologias Subaquáticas	Prof Joao Sousa	LSTS
12:05	Panel session for Q&A	Huw Gullick	National Oceanography Centre
12:35	Lunch Break / Exhibits		
13:35	Theme 1 - Users and Applications - Mr Peter Collinson - session chair	Peter Collinson	Independent
13:55	Application of Single Turnover Active Fluorometry (STAF) to the assessment of Phytoplankton Primary Productivity	Kevin Oxborough	Chelsea Technologies
14:15	Maritime Autonomous Systems as Part of Pan-Domain Integration	Stewart Radcliff	Thales UK
14:35	Marine robotic platforms on board the upcoming rebuild of the German research icebreaker Polarstern	Christian Katlein	Alfred-Wegener-Institute
15:00	Break & Exhibits		
15:20	The challenge and benefits of open data in the context of UK ocean glider data	Dr Justin Buck	National Oceanography Centre
15:40	Net Zero Oceanographic Capability: implications for measurement systems and autonomy	Prof Matt Mowlem	National Oceanography Centre
16:00	Applications for low cost ecoSUB AUVs: increasing productivity and reducing survey costs for Offshore Wind Farms	lain Vincent	Planet Ocean Ltd
16:20	Round Up & Panel Discussion	Peter Collinson	Independent
16:40	Finish		
17:00	Icebreaker Reception Hosted by Society of Maritime Industries	Tom Chant	SMI

### **TUESDAY 9 NOVEMBER 2021**

## **MATS** 2021



TIME	EVENT TITLE	PRESENTER	ORGANISATION
9:00	Exhibits Open & Refreshments		
9:30	National Oceanography Centre News Daily Host - Autosub 25 Years	Prof Matt Palmer	National Oceanography Centre
9:50	Theme 2 Generating information from Data – Dr John Siddorn National Oceanography Centre - Session Chair	Dr John Siddorn	National Oceanography Centre
10:10	Demystifying Digital Twins and the Implications for Autonomous Systems	Jake Rigby – Aaron McMaster	BMT
10:30	Break & Exhibits		
10:50	Data collection is the building block to true autonomy	Matt Brannan	EIVA A/S
11:10	AI Video Library for Meta-Data Extraction	Pedro Costa	Ocean Infinity
11:30	Round Up & Panel Discussion	Dr John Siddorn	National Oceanography Centre
11:50	SMI MA Challenge Update	Geraint West	
12:00	Lunch Break / Exhibits		
13:00	CEbotix Launch / presentation	Gordon Meadows	SeaBot XR
13:45	Theme 3 - Planning and Control - Michael King Ocean Infinity -Session Chair	Michael King	Ocean Infinity
14:00	Localisation and Mapping for Autonomous Vessel using Radar	Nick Swift – Sam Wood	Forum Technologies -Navtech
14:20	Marine Autonomous Simulation Platform For Offshore Applications	Satish Ramachandran	AROBOTNX
14:40	Break & Exhibits		
15:00	Maritime Cyber Security (and much more) at the University of Plymouth	Chloe Rowland – Steve Rice	University of Plymouth
15:20	Regulating MASS: Regulating MASS: Progress is being made at great pace to support and enable the use of autonomous vessels with appropriate regulation in the UK and internationally.	Katrina Kemp	МСА
15:40	Round Up & Panel Discussion	Michael King	Ocean Infinity
16:00	Finish		
16:30	Evening Social to mark 25 Years of Autosub Hosted by National Oceanography Centre Innovations Ltd	Huw Gullick	National Oceanography Centre
18:30	Looking to the Future presentation Held in the National Oceanography Centre seminar room level 4– separate information is available on the MATS webpage	Mark Poole	Hydrographic Society Southern Branch

#### **WEDNESDAY 10 NOVEMBER 2021**

## **MATS** 2021

TIME	EVENT TITLE	PRESENTER	ORGANISATION
9:00	Exhibits Open & Refreshments		
9:30	National Oceanography Centre News Daily Host – Net Zero Oceanographic Capability NZOC update	Leigh Storey	National Oceanography Centre
9:50	Theme 4 Data Collection Dr Julie Robidart - Session Chair	Dr Julie Robidart	National Oceanography Centre
10:10	Augmenting Digital Twin Platforms with Machine Learning	Manuel Parente	Ocean Infinity
10:30	All-for-one and one-for-all combined laser and sonar payload for AUVs	Aidan Thorn & Brenden St John	Sonardyne / Voyis
10:50	Break & Exhibits		
11:00	Minutes silence	Leigh Storey	National Oceanography Centre
11:10	Autonaut – EE USV Endurance Mission in the North-East Atlantic for collection of ADCP, PAM and Metocean Data	Harry Spedding & Mike Poole	Autonaut Ltd
11:30	Achieving more with less – innovations in navigational sensor packages	Rory Findlay	NORTEK
11:50	Autonomous eDNA sampling in the deep-sea	Susan Evans	National Oceanography Centre
12:10	GROOM II : Gliders for Research, Ocean Observation and Management - Toward an European MAS Research Infrastructure	Laurent Mortier	Sorbonne Université
12:30	Nutrient and carbonate sensors on Marine Autonomous Systems	Alex Beaton	National Oceanography Centre
12:50	Round Up & Panel Discussion		
13:00	Lunch Break / Exhibits		
13:45	Theme 5 Autonomous platforms and supporting technology - Ben Pritchard - Session Chair	Ben Pritchard	Thales UK
14:00	Squads of Adaptive Robots (SoAR)	lain Vincent	Planet Ocean Ltd
14:20	Sea trial results from an experimental fuel cell powered, long range, autonomous underwater vehicle	Adrian Woodroffe	Cellula Robotics Ltd
14:50	A2KUI On-board Control System – A new approach for a full redundant vehicle	Alberto Consensi	National Oceanography Centre
15:10	The Mayflower Autonomous Ship - Results of At-Sea Testing and Long-Range Deployment	Bret Phaneuf	MSubs Ltd
15:30	Break & Exhibits		
15:50	Electric propulsion systems for USVs – solving power budget and control challenges	Carl Reynaud	Dynautics Ltd
16:10	Refitting a Manned Submersible to show the Capabilities of Future XLUUVs	Matt Troughton & Graham Johnston	MSubs Ltd
16:30	Mimicking Insect Behaviour to Optimise Autonomous Vessel Operations.	Nick Swift – Bethany Lines	TP Group Ltd
16:45	Round Up & Panel Discussion		
17:00	Overview of the week		

### **THURSDAY 11 NOVEMBER 2021**





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