

Martech24

11th INTERNATIONAL WORKSHOP ON MARINE TECHNOLOGY

Universitat de les Illes Balears, Palma, Spain

June 06th, Thursday

8:00 - 9:00	Reception and Registration (Hall, ground floor)
9:00 - 9:15	Opening of the Conference (Conference room, ground floor)
Plenary 9:15 – 10:15 (Conference room)	SOCIB 2030: Integrated Multi-platform Ocean Observing and FAIR Data for Regional Digital Twins of the Ocean Dr. Joaquim Tintoré Subirana - SOCIB (Spain)
10:15 – 10:45	Coffee break (Open-air place, ground floor)
Session 1.1 Special Session on Marine Technology Applications 10:45 - 12:00 (Room 26, 2 nd floor)	ID23 The VENOM network: An ultra-dense tide gauge network based on LoCOS instruments Gabriel Jordà, Instituto Español de Oceanografía (CSIC), Spain ID07 Study of fine-scale dynamics in the Balearic Sea through high-resolution observations and SWOT satellite data Elisabet Verger-Miralles, IMEDEA (UIB-CSIC), Spain ID29 Pop-Up Buoys - Improving the Environmental Seafloor Monitoring Capabilities of Stand-Alone Oceanographic Platforms Matias Carandell, SARTI - Universitat Politècnica de Catalunya, Spain ID24 PROLIXE, a versatile long-term profiling mooring Jean-Romain Lagadec, IFREMER, France ID39 First approach to bidirectional acoustic tag's software. PPM modulation and threshold demodulation scheme Gerard Batet, SARTI - Universitat Politècnica de Catalunya, Spain
Session 1.2 Special Session on Robotics, Artificial Intelligence, Sensors and Communications 10:45 - 12:00 (Room 27, 2 nd floor)	ID12 Robust Path Planning and Trajectory Optimization Framework for Tethered ASV-AUV Markus Buchholz, Heriot-Watt University, Scotland - UK ID15 A new glider facility in the SE Bay of Biscay: an opportunity for integrated science Asier Nieto, AZTI Foundation, Spain ID46 Where's Wally?: Localization of acoustic landmarks using AUVs in a pose-graph framework Marta Real, Universitat de Girona, Spain ID48 Advances in the Development of a new Medium Depth Underwater Glider Javier Busquets-Mataix, Universitat politècnica de Valencia, Spain ID50 Autonomous Ocean Observations: The challenges for FAIR and reliable data for Digital Twins Development Nikolaos D. Zarokanellos, SOCIB, Spain

12:00 - 12:15 Break

Session 2.1
Special Session on Marine Technology Applications
12:15 – 13:30
(Room 26, 2nd floor)

ID16 Automation of harmful cyanobacteria blooms monitoring with smart ASVs
Eva Besada-Portas, Universidad Complutense de Madrid, Spain

ID41 Long-Lasting Ecological Monitoring Network of Lander Platforms for Marine Protected Areas
Daniel Mihai Toma, SARTI - Universitat Politècnica de Catalunya, Spain

ID05 Depth Control Research of μ -Nautilus Profiler in a Real-World Environment
Isabel Pilar Morales Aragón, Technical University of Cartagena, Spain

ID38 Underwater glider custom payload for long-term radioactivity measurements
Angelos Mallios, Ploa Technology Consultants S.L., Spain

ID09 Low-lux oriented photogrammetry system for underwater environment modeling
Luis Rodriguez-Cobo, CIBER-BBN, Instituto de Salud Carlos III, Spain

Session 2.2
Special Session on Robotics, Artificial Intelligence, Sensors and Communications
12:15 – 13:30
(Room 27, 2nd floor)

ID26 SLAGREEF, slag based artificial reefs design preliminary results
Joaquín del Río, SARTI - Universitat Politècnica de Catalunya, Spain

ID21 LoCOS-Wave: A Low Cost Open Source pressure gauge for measuring sea waves
Joan Villalonga, Universitat de les Illes Balears, Spain

ID03 Seasonal underwater Sound Pressure Level variability at OBSEA
Albert Garcia-Benadí, Universitat Politècnica de Catalunya, Spain

ID28 Firmware implementation for a bidirectional acoustic tag
Juan M. López, Universidad Politècnica de Madrid, Spain

ID20 Estimation of Fishing Net Underwater Geometry with Embedded Deformation Graphs
Jaime Valls Miro, AZTI Foundation, Spain

13:30 - 15:00 Lunch break (Open-air place, ground floor)

Special Session
15:00 – 16:00
(Conference room)

business Session

Session 3.1
Special Session on Marine Technology Applications
16:00– 17:30
(Room 26, 2nd floor)

ID02 High-frequency radar-derived coastal upwelling index
Pablo Lorente, Puertos del estado, Spain

ID11 Chlorophyll-a Level Data Update from SeaWiFS Images Using Landsat-7 Data
Gabriel E. Suárez-Fernández, Applied Geotechnologies Research Group - University of Vigo, Spain

ID18 Analysing High Frequency Radar Outages in the Ibiza Channel via HOORT: A Case Study
Guiomar Lopez, SOCIB, Spain

ID22 Supervised classification of intertidal macroalgae using georeferenced high-resolution UAV imagery
Andrea Martínez Movilla, GEOTECH - University of Vigo, Spain

ID51 Operating conditions analysis for a computer vision based system for marine litter monitoring in port waters
Mariano Morell Villalonga, LIM- UPC, Garau Ingenieros, Spain

<p>Session 3.2</p> <p>Special Session on Robotics, Artificial Intelligence, Sensors and Communications</p> <p>16:00– 17:30 (Room 27, 2nd floor)</p>	<p>ID14 AI-Driven Hake Catch Monitoring: Pioneering Size-Based Inventory Control in Longline Fishing Luis T. Antelo, Instituto de Investigaciones Marinas (IIM-CSIC), Spain</p>
	<p>ID40 Tools for ecosystem monitoring based on fish detection and classification using deep neural networks Oriol Prat, SARTI - Universitat Politècnica de Catalunya, Spain</p>
	<p>ID43 YOLOv8-based Sea Urchin Detection in ROS for AUV Applications Caterina Muntaner-Gonzalez, Universitat de les Illes Balears, Spain</p>
	<p>ID37 Advances technological platforms for sea monitoring and forecasting: RAISE project Giulia Dapueto, ETT S.p.A. / University of Genoa, DISTAV, Italy</p>
	<p>ID32 Evaluating the Biological Impact of an Artificial Reef Using Deep Learning Techniques Pol Baños Castelló, SARTI - Universitat Politècnica de Catalunya, Spain</p>
	<p>ID19 BAI4FISH - Balearic Artificial Intelligence for Fish Farms Eugenio Cutolo, ATALAIA Detection Technologies, Spain</p>

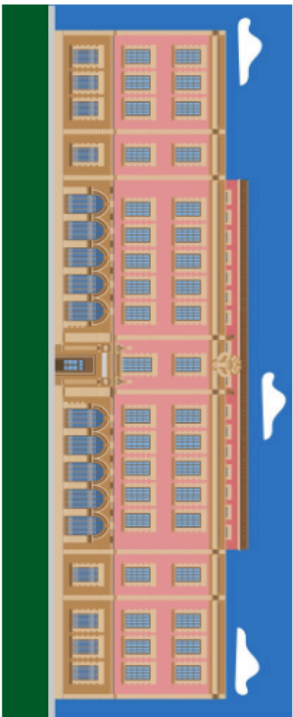
Cultural Visit 18:30 – 20:00	Cultural Visit
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Gala Dinner 20:00	Restaurante GALIBO Location ASTILLEROS DE MALLORCA, S.A, Contramollet, 11, 07012 Palma de Mallorca (39.56810, 2.64030)
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June 07th, Friday

8:15 - 9:15	Reception and Registration
Plenary 9:15 – 10:15 (Conference room)	Autonomous monitoring of environment and critical infrastructures Dr. Riccardo Costanzi - University of Pisa (Italy)
10:15 – 10:45	Coffee break (Open-air place, ground floor)
Session 4.1 Special Session on Marine Technology Application 10:45 - 12:00 (Room 26, 2 nd floor)	ID08 Mosaic analysis of UnderWater TeleVision (UWTV) survey data for Norway lobster Damianos Chatzievangelou, Instituto de Ciencias del Mar (ICM-CSIC), Spain ID13 Real-Time Long-Term Navigation with CUDA-Accelerated 3D Grid Map Michele Grimaldi, Heriot-Watt University, Scotland - UK ID36 ANERIS Project: OBSEA's Contribution to Marine Biodiversity Monitoring Marc Nogueras, SARTI - Universitat Politècnica de Catalunya, Spain ID10 Performance evaluation of a wave energy converter that produces potable water Lilia Flores Mateos, Queen's University Belfast, Ireland - UK ID27 Study of Low-Cost & Highly-Scalable Replantation Methods of Posidonia oceanica Frederik Veger, SARTI - Universitat Politècnica de Catalunya, Spain
Session 4.2 Special Session on Robotics, Artificial Intelligence, Sensors and Communications 12:15 – 13:30 (Room 27, 2 nd floor)	ID06 Automated Mask Generation for Efficient YOLO-based Instance Segmentation in Marine Environments for Fish Detection Antoni Burguera Burguera, Universitat de les Illes Balears, Spain ID25 An open-source control architecture for teleoperated underwater legged robots Giacomo Picardi, Instituto de Ciencias del Mar (ICM-CSIC), Spain ID47 Detect and Follow a Custom Object, using OBSEA Underwater Crawler Ahmad Falahzadeh, SARTI - Universitat Politècnica de Catalunya, Spain ID44 Exploring Deep Waters: Preliminary Findings and Design Insights from a Stereo Vision Unit Deployment Caterina Muntaner González, Universitat de les Illes Balears, Spain ID04 Implementation and evaluation of state observers and motion controllers in Autonomous Surface Vehicle Manuel Eduardo Gantiva Osorio, Universidad Loyola Andalucía, Spain

12:00 - 12:15	Break
<p>Session 5.1</p> <p>Special Session on Marine Technology Application</p> <p>12:15 – 13:30 (Room 26, 2nd floor)</p>	<p>ID31 Autonomous Inspection of a Net Cage for Fish Farms using Sonar Based Sensors Salvador López Barajas, Universitat Jaume I, Spain</p> <p>ID35 Ecological Monitoring of a Modular Artificial Reef with Cameras inside the Project SLAGREEF Marco Francescangeli, SARTI - Universitat Politècnica de Catalunya, Spain</p> <p>ID33 Effects of Robot Fish in Animal Welfare for Aquaculture Applications: Preliminary Studies Andrea Pino Jarque, Universitat Jaume I, Spain</p> <p>ID01 Recording acoustic data in the twilight and midnight zones at close range MArian Peña, Centro oceanográfico de Baleares (IEO, CSIC), Spain</p> <p>ID30 Towards the development of a multipurpose tool for underwater manipulation Alejandro Solis, Universitat Jaume I, Spain</p>
<p>Session 5.2</p> <p>Special Session on Robotics, Artificial Intelligence, Sensors and Communications</p> <p>12:15 – 13:30 (Room 27, 2nd floor)</p>	<p>ID42 Enhancing social well-being and economic prosperity by reinforcing the EFFECTIVENess of protection and restoration management in Mediterranean MPAs Rachele Bordoni, ETT S.p.A., Italy</p> <p>ID34 Update of the Control System for the OBSEA Underwater Observatory Carola Artero, SARTI - Universitat Politècnica de Catalunya, Spain</p> <p>ID45 Constructing an open library containing a curated and continuously growing digital catalogue of individual sound signatures from the marine underwater soundscape in shallow seas Valeria Pizziol, ETT S.p.A., Italy</p> <p>ID49 Towards a Modular Open Data Infrastructure for Heterogeneous Marine Scientific Data Management Enoc Martínez, SARTI - Universitat Politècnica de Catalunya, Spain</p> <p>ID17 Empowering Citizen Science in Coastal Oceanography through low-cost open source devices: The SECOSTA Project at the Intersection of Technology and Education E. Alejandro Herrada, Universitat de les Illes Balears, Spain</p>
13:30 - 14:00 (Conference room)	Closing Ceremony and Best Papers' Awards
14:00	Lunch (Open-air place, ground floor)



Edifici Sa Riera
C/ de Miquel dels Sants Oliver, 2
Palma

