2016 BREAKING THE SURFACE

8th INTERNATIONAL INTERDISCIPLINARY FIELD WORKSHOP OF MARINE ROBOTICS AND APPLICATIONS 2nd - 9th October Ilirija resort, biograd na moru, croatia

	SUNDAY 02.10.	MONDAY, 03.10.		TUESDAY, 04.10.		WEDNESDAY, 05.10.			THURSDAY, 06.10.			FRIDAY, 07.10.		
09:00 - 09:45		OPENING SESSION Mislav Grgić Zoran Vukić Nikola Mišković	Froi	INNOVA 1 From Research to Revenues - The Puzzle of the Market David Lane		MARBIO 1 Co-existence of top marine predators and humansand the role of technology Mark Jessopp			MAROB 6 Robotics for challenging ocean intervention in marine renewable energy and other applications Dan Toal			MAROB 9 Unmanned system for maritime security and environmental monitoring Stjepan Bogdan		
09:45 - 10:30		MAROB 1 The H2020 project WiMUST: Widely scalable Mobile Underwater Sonar Technology. An overview Giovanni Indiveri COFFEE BREAK MAROB 2 Deep sea sampling with soft robotics: early results and future directions Stephen C. Licht		INNOVA 2 Comments on the Management of Technology Startup Companies Clayton Stewart COFFEE BREAK INNOVA 3 The Art of Innovation Kemal Delić		MAROB 4 Modular portable marine robotics Massimo Caccia COFFEE BREAK MAROB 5 The role of underwater robotics in the growth of marine renewable energy Tim Mundon			MARBIO 2 Observations from the Invisible Forest: the diversity of marine phytoplankton Sunčica Bosak COFFEE BREAK MAROB 7 Aquatic Micro Aerial Vehicles (AquaMAV) for water sampling and marine exploration Mirko Kovac			Investigating the submarine canyons and seamounts in Spanish waters through non-invasive methodologies Francisco Sanchez COFFEE BREAK MAROB 10 A decade of research in underwater cooperative navigation: what have we learned? Mandar Chitre		
10:30 - 10:45														
10:45 - 11:30														
11:30 - 12:15	MARCH 1 Nautical archaeology from the naval architecture point of view Smiljko Rudan		Why	INNOVA 4 Why and how becoming a researcher and entrepreneur? Asgeir Sørensen		MARCH 2 Recording "in the dark". The challenges of recording a submerged 8th century structure in the Schlei Fjord, Northern Germany Jens Auer			MARCH 3 The Underwater Archaeology Centre of Catalonia. The works with AUV and submersibles in archaeological sites Gustau Vivar			MARCH 4 Underwater and Instrumental Archaeology. A Special Relationship Francesco Tiboni		
12:15 - 13:00		MAROB 3 Methodology of recording and analyzing shipwreck sites using multi-image photogrametry Kotaro Yamafune	value creation from research the university spin-offs		MARSEC 1 Marine Robotics Applications in Humanitarian, Search & Rescue and Civilian Focussed Security Operations – what might the future hold? Cormac Gebruers			MAROB 8 Marine robotics – A tool for increased awareness from land to the deep sea Alfredo Martins			MARSEC 2 Underwater and Instrumental Archaeology. A Special Relationship Adrian Dann			
13:00 - 14:30		LUNCH		LUNCH		LUNCH			LUNCH			LUNCH		
14:30 - 14:45		Tutorial University of Girona:		INNOVA 6 OceanScan	Company presentation Evologics		Company presentation Hydroid		University of Girona Girona500 data analysis					
14:45 - 15:00				Luis Madureira										
15:00 - 15:15		Mission planning		INNOVA 7 Blueye Robotics Dyrkoren & Ludvigsen		OceanScan Data Analysis	♣ Ţ	Thruster Control & FPGA G	Tutorial intro Edin Omerdić: using LabVIEW F	Real-Time		npany presentation rodarski Institute		
15:15 - 15:30 15:30 - 15:45		"		INNOVA 8			1 °	& FPGA Gi	aphical Program	ming ¶°			1 *	
15:45 - 16:00		Tutorial		Bootstrapping SonarSim: A Start-up Journey Francis Flannery	DEMO	DEMO	DEMO	Tutorial hands-	DEMO	DEMO	DEMO	DEMO	DEMO	
16:00 - 16:15		OceanScan: Mission planning		COFFEE BREAK	Evologics Group 1	CNR Group 2	subCULTron Group 3	on Group 1	CADDY Group 2	AquaMAV Group 3	Brodarski Institute: ship Group 1	Ilmenau Medusa Group 2	MORUS Group 3	
16:15 - 16:30		Ů	6 EvoLog						(H)	(H)	(H)	(H)	(E)	
16:30 - 16:45			Evil works	Blueye Robotics										
16:45 - 17:00		University of Girona: Girona500 deployment		IQUA Robotics: from lab to	DEMO Evologics	DEMO CNR	DEMO subCULTron	Tutorial hands- on	DEMO CADDY	DEMO AquaMAV	DEMO Brodarski	DEMO Ilmenau	DEMO MORUS	
17:00 - 17:15	REGISTRATION			market Pere Ridao	Group 2	Group 3	Group 1	Group 2	Group 3	Group 1	Group 2	Medusa Group 3	Group 1	
17:15 - 17:30				INNOVA 10 Titanrob										
17:30 - 17:45		DEMO OceanScan		Darío Sosa Cabrera										
17:45 - 18:00				INNOVA 11	DEMO Evologics	DEMO CNR	DEMO subCULTron	Tutorial hands- on	DEMO CADDY	DEMO AquaMAV	DEMO Brodarski Institute: ship	DEMO Ilmenau Medusa	DEMO MORUS	
18:00 - 18:15				Round table moderated by Asgeir Sorensen	Group 3	Group 1	Group 2	Group 3	Group 1	Group 2	Group 3	Group 1	Group 2	
18:15 - 18:30													(E)	
18:30 - 18:45	WELCOME DRINK													
18:45 - 19:00	-	NORWEGIAN NIGHT												
19:00 - 19:15	€	€€												
19:15 - 19:30	Y Y	Y									-	POOL PARTY: DINNER		
19:30 - 20:30	DINNER	DINNER	R DINNER			DINNER			DINNER			CLOSING CEREMONY		

LEGEND:

Special sessions Lecture: MAROB

Lecture: MARCH Lecture: MARSEC

Lecture: INNOVA

Tutorial EvoLogics company programme OceanScan company programme

Hydroid company programme University of Girona programme AquaMAV demo

Brodarski Institute ship demo CADDY FP7 project demo H2020 subCULTron project demo

In partnership with Centre for autonomous marine operations and systems -

AMOS, Norwegian University of Science and Technology - NTNU

National Research Council - CNR

University of Girona

University of Limerick

CNR demo NATO SpS MORUS project demo SOCIAL EVENTS



Lecture: MARBIO



- LAVENDER BAR ROOM @ HOTEL ADRIATIC (PURPLE) Programme: tutorial, mission plannings, data analyses



- SEA POOL & OPEN WATERS NEARBY

Financed in the scope of project EXCELLABUST - Excelling LABUST in

marine robotics (GA 691980) which has received funding from the

European Union's Horizon 2020 research and innovation pro-



- LAVENDER BAR @ HOTEL ADRIATIC (PURPLE) Programme: night social events

Organized by Laboratory for Underwater Systems and Technologies Faculty of Electrical Engineering and Computing University of Zagreb, and

Centre for Underwater Systems and Technologies



CEPOST







gramme.







SYSTEMS FOR AUTOMATION

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Croatian Academy of Science

and Arts











