heaving the surface

7th International Interdisciplinary Field Workshop of Marine Robotics and Applications

4th - 11th OCTOBER 2015 ILIRIJA RESORT, BIOGRAD NA MORU, CROATIA

	SUNDAY, 04.10.	MONDAY, 05.10.	TUESDAY, 06.10.	WEDNESDAY, 07.10.	THURSDAY, 08.10.	FRIDAY, 09.10.	SATURDAY, 10.10
09:00 - 09:45		Opening session	MAROB 2 Swimming manipulators – a bio- inspired solution for subsea inspection and intervention Kristin Y. Pettersen	MAROB 5 Towards Integrated Autonomous Underwater Operations Asgeir J. Sørensen and Martin Ludvigsen	MAROB 7 Underwater manipulation Gianluca Antonelli	MAROB 9 3D Mapping in Marine Environments Andreas Birk	

09:45 - 10:30			MARCH 1 bols for Biblic axton and Jaco		Marine Robotics to	PH 1 5 Support Research Cottier		MARCH 2 5 Autonomy in Archaeology Øyvind Ødegår		MARBIO 3 Marine organic matter, minor contribution but major role Blaženka Gašparović			MARCH 3 From shipwrecks to sailing ships Giulia Boetto and Pierre Poveda																																											
10:30 - 10:45		Coffee break		Coffee break		Coffee break		Coffee break		Coffee break																																														
10:45 - 11:30		MARBIO 1 The use of Underwater Hyperspectral Imaging to identify, map and monitor marine life on the seafloor Geir Johnsen and Jørgen Berge		The use of Underwater Hyperspectral Imaging to identify, map and monitor marine life on the seafloor		The use of Underwater Hyperspectral Imaging to identify, map and monitor marine life on the seafloor		The use of Underwater Hyperspectral maging to identify, map and monitor marine life on the seafloor		ne use of Underwater Hyperspectral naging to identify, map and monitor marine life on the seafloor		e use of Underwater Hyperspectral aging to identify, map and monitor marine life on the seafloor		he use of Underwater Hyperspectral naging to identify, map and monitor marine life on the seafloor		The use of Underwater Hyperspectral Imaging to identify, map and monitor marine life on the seafloor		The use of Underwater Hyperspectral maging to identify, map and monitor marine life on the seafloor		he use of Underwater Hyperspectral naging to identify, map and monitor marine life on the seafloor		he use of Underwater Hyperspectral naging to identify, map and monitor marine life on the seafloor		The use of Underwater Hyperspectral maging to identify, map and monitor marine life on the seafloor		The use of Underwater Hyperspectral Imaging to identify, map and monitor marine life on the seafloor		The use of Underwater Hyperspectral Imaging to identify, map and monitor marine life on the seafloor		The use of Underwater Hyperspectral maging to identify, map and monitor marine life on the seafloor		The use of Underwater Hyperspectral maging to identify, map and monitor marine life on the seafloor		he use of Underwater Hyperspectral naging to identify, map and monitor marine life on the seafloor		he use of Underwater Hyperspectral naging to identify, map and monitor marine life on the seafloor		he use of Underwater Hyperspectral naging to identify, map and monitor marine life on the seafloor		ne use of Underwater Hyperspectral naging to identify, map and monitor marine life on the seafloor		e use of Underwater Hyperspectral aging to identify, map and monitor marine life on the seafloor		use of Underwater Hyperspectral ging to identify, map and monitor marine life on the seafloor		e use of Underwater Hyperspectral aging to identify, map and monitor marine life on the seafloor Base of Underwater Hyperspectral Robots: Planning, Navigation, an Control		operative Marine , Navigation, and htrol	MAROB 6 Future directions in underwater communication networks for subsea robotics Jeff Neasham		MAROB 8 From diving birds and flying fish to aerial-aquatic robots Mirko Kovač		MARCH 4 OceanGate's Cyclops manned submersible capabilities Stockton Rush		oilities	
11:30 - 12:15		MAROB 1 Guidance, interaction and understanding of the diver - A new challenge in marine robotics Marco Bibuli		MAROB 4 Unmanned Aerial Vehicles in Marine Operations Thor I. Fossen		MARSEC 1 Unmanned Marine Vehicles at Disasters Robin Murphy		MARSEC 2 ICARUS – Maritime Unmanned Search and Rescue Stefano Fioravanti and Marin Stipanov		and Monitoring		Field trip																																												
12:15 - 13:00		,	T1 intro Hrvoje Čižmel	k		ntro Pascoal	climate ai	<i>MARBIO 2</i> of a key arctic nd petroleum smine Nahrgar	activities	T3 intro Edin Omerdić		ć	MAROB 10 EU Research project MORPH: Results achieved and lessons learnt after the final sea trials in September 2015 Thomas Glotzbach																																											
13:00 - 14:30			Lunch		Lu	nch		Lunch			Lunch		Lunch																																											
14:30 - 15:00		Company presentation		RobotX Competition presentation		Company presentation			Company presentation		MARCH 5																																													
14:45 - 15:00			Evologics		Kelly (Cooper	M	aritime Roboti	CS		VideoRay		AdriaS Irena Radić Rossi MARSEC 3 The Rapid Autonomous Fuel Transfer (RAFT) project: design, development,		si																																									
15:00 - 15:15 15:15 - 15:30 15:30 - 15:45 15:45 - 16:00		<i>Group 1</i> T1 hands-on	Group 2 DEMO ROV e-URoPe	Group 3 DEMO Evologics		p resentation g/Hydroid <u>Group 2</u>	Group 1 T2 hands-on	Group 2 DEMO Maritime Robotics	Group 3 DEMO CMRE (MORPH)	<i>Group 1</i> T3 hands-on	Group 2 DEMO VideoRay	Group 3 DEMO CMRE (ICARUS)																																												
16:00 - 16:15 16:15 - 16:30		Group 2	Group 3 DEMO	Group 1	T2 hands-on	DEMO CADDY	Group 2	Group 3 DEMO	Group 1 DEMO	Group 2	Group 3	Group 1 DEMO	-	Gregory Scott MARSEC 4 cous Autonon Expeditionary	nous Marine																																									
16:30 - 16:45		T1 hands-on	ROV e-URoPe	DEMO Evologics			T2 hands-on	Maritime Robotics	CMRE (MORPH)	T3 hands-on	DEMO VideoRay	CMRE (ICARUS)		Vladimir Djap	-																																									
16:45 - 17:00					Group 2 T2	Group 1 DEMO			(
17:00 - 17:15					hands-on	CADDY																																																		
17:15 - 17:30		Group 3 T1	Group 1 DEMO	Group 2 DEMO			Group 3 T2	Group 1 DEMO	Group 2 DEMO	Group 3 T3	Group 1 DEMO	Group 2 DEMO																																												
17:30 - 17:45		hands-on	ROV e-URoPe	Evologics			hands-on	Maritime Robotics	CMRE (MORPH)	hands-on	VideoRay	CMRE (ICARUS)																																												
17:45 - 18:00																																																								
18:00 - 18:30																																																								
18:30 - 19:30	Welcome drink																																																							
19:30 - 20:30	Dinner		Dinner			Dinner		Dinner		Dinner			Closing ceremony and dinner																																											

LECTURES

MAROB - Marine Robotics	MARBIO - Marine Biology	TUTORIALS (T)	BREAKS AND SOCIAL PROGRAM
MARCH - Maritime, nautical and ship archaeology	MARSEC - Maritime security, naval and coast guard operations	COMPANY AND EVENTS PRESENTATION	
GRAPH - Maritime oceanography		DEMONSTRATIONS (DEMO)	









CEPOST







beaking the surface

7th International Interdisciplinary Field Workshop of Marine Robotics and Applications

4th - 11th OCTOBER 2015 ILIRIJA RESORT, BIOGRAD NA MORU, CROATIA

		MONDAY, 05.10. TUESDAY, 06.10.		DAY, 06.10.	V	VEDNESDAY, 03	7.10.	THURSDAY, 08.10.			FRIDAY, 09.10.			SATURDAY, 10.10.	
09:00 - 09:45	Opening session		Opening session		MAROB 2 Swimming manipulators – a bio- inspired solution for subsea inspection and intervention Kristin Y. Pettersen		MAROB 5 Towards Integrated Autonomous Underwater Operations Asgeir J. Sørensen and Martin Ludvigsen			MAROB 7 Underwater manipulation Gianluca Antonelli			MAROB 9 3D Mapping in Marine Environments Andreas Birk		
09:45 - 10:30	MARCH 1 Digital Tools for Biblical Shores Bridget Buxton and Jacob Sharvit		GRAPH 1 Marine Robotics to Support Resea Finlo Cottier		MARCH 2 Towards Autonomy in Marine Archaeology Øyvind Ødegård		MARBIO 3 Marine organic matter, minor contribution but major role Blaženka Gašparović			MARCH 3 From shipwrecks to sailing ships Giulia Boetto and Pierre Poveda					
10:30 - 10:45	Coffee break		¢	Coffe	e break		Coffee break		Coffee break			Coffee break			
10:45 - 11:30	MARBIO 1 The use of Underwater Hyperspectral Imaging to identify, map and monitor marine life on the seafloor Geir Johnsen and Jørgen Berge		MAROB 3 From Single to Cooperative Marine Robots: Planning, Navigation, and Control António Pascoal		MAROB 6 Future directions in underwater communication networks for subsea robotics Jeff Neasham		MAROB 8 From diving birds and flying fish to aerial-aquatic robots Mirko Kovač			MARCH 4 OceanGate's Cyclops manned submersible capabilities Stockton Rush					
11:30 - 12:15	MAROB 1 Guidance, interaction and understanding of the diver - A new challenge in marine robotics Marco Bibuli		Unmanned Aeria Ope	ROB 4 I Vehicles in Marine rations . Fossen	MARSEC 1 Unmanned Marine Vehicles at Disasters Robin Murphy		MARSEC 2 ICARUS – Maritime Unmanned Search and Rescue Stefano Fioravanti and Marin Stipanov			MARBIO 4 Integrated Environmental Mapping and Monitoring Ingunn Nilssen		Field trip			
12:15 - 13:00	T1 intro Hrvoje Čižmek		T2 intro António Pascoal		MARBIO 2 Sensitivity of a key arctic species to climate and petroleum activities Jasmine Nahrgang			T3 intro Edin Omerdić			MAROB 10 EU Research project MORPH: Results achieved and lessons learnt after the final sea trials in September 2015 Thomas Glotzbach				
13:00 - 14:30		Lunch		Lunch		Lunch			Lunch			Lunch			
14:30 - 15:00	Company presentation Evologics		RobotX Competition presentation		Company presentation			Company presentation			MARCH 5				
14:45 - 15:00			Evologics		Kelly Cooper		Maritime Robotics			VideoRay			AdriaS Irena Radić Rossi		
15:00 - 15:15				Company presentation							6				
15:15 - 15:30	Group 1 T1	Group 2 DEMO ROV	Group 3 DEMO	Kongsbe	rg/Hydroid	Group 1 T2	Group 2 DEMO Maritime	Group 3 DEMO CMRE		Group 2 DEMO	Group 3 DEMO CMRE	MARSEC 3 The Rapid Autonomous Fuel Transfer			
15:30 - 15:45	hands-on	e-URoPe	Evologics			hands-on	Robotics	(MORPH)	hands-on	VideoRay	(ICARUS)	and demo	oject: design, deve nstration of the p mous refuelling s	prototype	
15:45 - 16:00				Group 1 T2	Group 2 DEMO CADDY								Gregory Scott		
16:00 - 16:15 16:15 - 16:30	Group 2	Group 3	Group 1	hands-on	CADDI	Group 2	Group 3	Group 1	Group 2	Group 3	Group 1	•	MARSEC 4 ous Autonomo		
16:30 - 16:45	T1 hands-on	DEMO ROV	DEMO Evologics			T2 hands-on	DEMO Maritime	DEMO CMRE	T3 hands-on	DEMO VideoRay	DEMO CMRE		Expeditionary R Vladimir Djapic		
16:45 - 17:00		e-URoPe		Group 2	Group 1		Robotics	(MORPH)		Theonay	(ICARUS)				
17:00 - 17:15			EMO ROV Evologics	T2 hands-on	DEMO CADDY										
17:15 - 17:30	<i>Group</i> 3 T1 hands-on	Group 1 DEMO ROV e-URoPe			Group 3	-	Group 1 DEMO	Group 2 DEMO CMRE (MORPH)	Group 3	DEMO	Group 2 DEMO CMRE (ICARUS)				
17:30 - 17:45						T2 hands-on	Maritime Robotics		T3 hands-on						
17:45 - 18:00															
18:00 - 19:30															
19:30 - 20:30	0 - 20:30 Dinner			Dinner		Dinner		Dinner			Closing ceremony and dinner				

LECTURES

MAROB - Marine Robotics	MARBIO - Marine Biology	TUTORIALS (T)	BREAKS AND SOCIAL PROGRAM
MARCH - Maritime, nautical and ship archaeology	MARSEC - Maritime security, naval and coast guard operations	COMPANY AND EVENTS PRESENTATION	
GRAPH - Maritime oceanography		DEMONSTRATIONS (DEMO)	















