

WeAT1	Wednesday, September 14, 2016, 10:00-11:40, Track T1, Room T1
Collision Avoidance and Path Planning and Path Following (1) 🌿	Regular Session
Chair: Anastasios M. Lekkas (70595)	Norwegian Univ. of Science and Tech.
Co-Chair: Andrea Cristofaro (44839)	Univ. of Camerino

#	Subslot	Number	Title	Authors
1	10:00-10:20	65	Online Path Planning for Surface Vehicles Exposed to Unknown Ocean Currents Using Pseudospectral Optimal Control (Contributed Paper)	Lekkas, Anastasios M. (Norwegian University of Science and Technology) 70595 Roald, Ann L. (Norwegian University of Science and Technology) 91978 Breivik, Morten (Norwegian University of Science and Technology) 13704
2	10:20-10:40	19	Diver Tracking Using Path Stabilization - the Virtual Diver Experimental Results (Contributed Paper)	Nad, Dula (University of Zagreb, Faculty of Electrical Engineering and Com) 46752 Mandić, Filip (University of Zagreb, Faculty of Electrical Engineering and Comp) 80672 Miskovic, Nikola (University of Zagreb Faculty of Electrical Engineering and Compu) 42321
3	10:40-11:00	6	Ship Collision Avoidance Using Scenario-Based Model Predictive Control (Contributed Paper)	Johansen, Tor Arne (Norwegian University of Science and Technology) 10032 Cristofaro, Andrea (Norwegian University of Science and Technology) 44839 Perez, Tristan (Queensland University of Technology) 10022
4	11:00-11:20	15	NMPC-Based Trajectory Tracking and Collision Avoidance of Underactuated Vessels with Elliptical Ship Domain (Contributed Paper)	Abdelaal, Mohamed (Oldenburg University) 91727 Fränzle, Martin (Carl von Ossietzky Universität, Oldenburg) 55076 Hahn, Axel (Carl von Ossietzky Universität Oldenburg) 56550
5	11:20-11:40	33	Integration of Risk in Hierarchical Path Planning of Underwater Vehicles (Contributed Paper)	Lefebvre, Nicolas (NTNU) 91901 Schjøberg, Ingrid (Norwegian University of Science and Technology) 40121 Utne, Ingrid Bouwer (NTNU) 83347

WeBT1	Wednesday, September 14, 2016, 13:30-15:10, Track T1, Room T1
Collision Avoidance and Path Planning and Path Following (2) 🌿	Regular Session
Chair: Holger Korte (42361)	Jade - Univ. of Applied Sciences
Co-Chair: Jinwhan Kim (53223)	KAIST

#	Subslot	Number	Title	Authors
1	13:30-13:50	3	Maritime Unmanned Vehicle Cruise Path Planning for Maritime Information Collection (Contributed Paper)	Zhu, Man (Carl-von-Ossietzky University of Oldenburg) 90845 Hahn, Axel (Carl von Ossietzky Universität Oldenburg) 56550 Wen, Yuanqiao (Wuhan University of Technology) 90841 Zhang, Fan (Wuhan University of Technology) 90832
2	13:50-14:10	12	Probabilistic Quantification of Ship Collision Risk Considering Trajectory Uncertainties (Contributed Paper)	Park, Jeonghong (KAIST) 83274 Han, Jungwook (KAIST) 83267 Kim, Jinwhan (KAIST) 53223
3	14:10-14:30	20	From Nautical Path Planning in ECDIS to Their Realisation Applied for Fully Actuated Ships (Contributed Paper)	Koeckritz, Oliver (Jade University of Applied Sciences) 70412 Kurowski, Martin (University of Rostock) 43526 Grunert, Dennis (Jade University Elsfleth) 90886 Korte, Holger (Jade - University of Applied Sciences) 42361 Hahn, Axel (Carl von Ossietzky Universität Oldenburg) 56550
4	14:30-14:50	21	Efficient Path Planning Algorithms for Unmanned Surface Vehicle (Contributed Paper)	Niu, Hanlin (Cranfield university) 74817 Lu, Yu (Cranfield University) 89610 Savvaris, Al (Cranfield University) 74797 Tsourdos, Antonios (Cranfield University) 10959
5	14:50-15:10	22	Verifying Collision Avoidance Behaviours for Unmanned Surface Vehicles Using Probabilistic Model Checking (Contributed Paper)	Lu, Yu (Cranfield University) 89610 Niu, Hanlin (Cranfield university) 74817 Savvaris, Al (Cranfield University) 74797 Tsourdos, Antonios (Cranfield University) 10959

WeCT1	Wednesday, September 14, 2016, 15:30-17:10, Track T1, Room T1
Collision Avoidance and Path Planning and Path Following (3) 🌿	Regular Session
Chair: Esten Ingar Grøtli (17364)	SINTEF ICT
Co-Chair: Albert Sans-Muntadas (83237)	Norwegian Univ. of Science and Tech.

#	Subslot	Number	Title	Authors
1	15:30-15:50	44	Vision Restricted Path Planning and Control for Underactuated Vehicles (Contributed Paper)	Sans-Muntadas, Albert (Norwegian Univ. of Science and Tech.) 83237 Pettersen, Kristin Y. (Norwegian Univ. of Science and Tech.) 24115 Brekke, Edmund F. (Norwegian Univ. of Science and Tech.) 83236
2	15:50-16:10	41	A Reactive COLREGs-Compliant Navigation Strategy for Autonomous Maritime Navigation (Contributed Paper)	Naeem, Wasif (Queen's University of Belfast) 48482 Henrique, Sable Campbell de Oliveira (Queen's University Belfast) 91931 Hu, Liang (Queen's University Belfast) 60584
3	16:10-16:30	59	Sliding Mode Reference Conditioning for Path Following Applied to an AUV (Contributed Paper)	Rosendo, Juan Luis (Universidad Nacional de La Plata) 91973 Clement, Benoit (ENSTA Bretagne) 14873 Garelli, Fabricio (University of La Plata) 16848
4	16:30-16:50	73	ANCHOR: Navigation, Routing and Collision Warning During Operations in Harbors (Contributed Paper)	Trzuskowsky, Andreas (RWTH Aachen University) 91988 Hoelper, Carsten (Automotive & Rail Innovation Center Aachen) 91987 Abel, Dirk (RWTH-Aachen University) 30329
5	16:50-17:10	95	Some Remarks on Potential Field Constructions in a Multi-Obstacle Environment (Late Contributed Paper)	Prodan, Ionela (INP Grenoble) 46976 Stoican, Florin (Politehnica University of Bucharest) 40736 Grøtli, Esten Ingar (SINTEF ICT) 17364

WeAT2	Wednesday, September 14, 2016, 10:00-11:40, Track T2, Room T2
Underwater Localization Techniques 🌿	Regular Session
Chair: Tor Arne Johansen (10032)	Norwegian Univ. of Science and Tech.
Co-Chair: Naveena Crasta (45698)	Inst. Superior Técnico (IST), Lisbon,

#	Subslot	Number	Title	Authors
1	10:00-10:20	111	Integrated Motion Planning, Control, and Estimation for Range-Based Marine Vehicle Positioning and Target Localization (Late Contributed Paper)	Moreno-Salinas, David (UNED) 42049 Crasta, Naveena (Instituto Superior Técnico (IST), Lisbon,) 45698 Ribeiro, Miguel (ISR-Inst. Superior Tecnico) 92553 Bayat, Behzad (Technical University of Lisbon, Instituto Superior Técnico(IST)) 42454 Pascoal, Antonio M. (IST-ID, VAT 509830072) 23876 Aranda, Joaquin (Universidad Nacional de Educación a Distancia) 12599
2	10:20-10:40	112	Optimal Motion Planning Algorithm Using Range-Only Information in the Presence of Unknown Currents (Late Contributed Paper)	Crasta, Naveena (Instituto Superior Técnico (IST), Lisbon,) 45698 Moreno-Salinas, David (UNED) 42049 Bayat, Behzad (Technical University of Lisbon, Instituto Superior Técnico(IST)) 42454 Pascoal, Antonio M. (IST-ID, VAT 509830072) 23876 Aranda, Joaquin (Universidad Nacional de Educación a Distancia) 12599
3	10:40-11:00	60	Mobile Beacon Control Algorithm That Ensures Observability in Single Range Navigation (Contributed Paper)	Mandić, Filip (University of Zagreb, Faculty of Electrical Engineering and Comp) 80672 Miskovic, Nikola (University of Zagreb Faculty of Electrical Engineering and Compu) 42321 Palomeras, Narcis (University of Girona) 34420 Carreras, Marc (University of Girona) 34426 Vallicrosa, Guillem (Universitat de Girona) 70598
4	11:00-11:20	108	Autonomous Homing and Docking for AUVs Using Range-Only Localization and Light Beacons (Late Contributed Paper)	Vallicrosa, Guillem (Universitat de Girona) 70598 Bosch, Josep (University of Girona) 81462 Palomeras, Narcis (University of Girona) 34420 Ridao, Pere (University of Girona) 34424 Carreras, Marc (University of Girona) 34426 Gracias, Nuno (University of Girona) 37135

5	11:20-11:40	69	Enhanced Hydroacoustic Range Robustness of Three-Stage Position Filter Based on Long Baseline Measurements with Unknown Wave Speed (Contributed Paper)	Jørgensen, Erlend Kvinge (Norwegian University of Science and Technology (NTNU)) 91980 Johansen, Tor Arne (Norwegian University of Science and Technology) 10032 Schjølberg, Ingrid (Norwegian University of Science and Technology) 40121
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WeBT2	Wednesday, September 14, 2016, 13:30-15:10, Track T2, Room T2
Dynamic positioning & position mooring systems for ships & platforms (1) 🌱	Regular Session
Chair: Thor I. Fossen (10228)	NTNU
Co-Chair: Andrea Caiti (13921)	Univ. of Pisa

#	Subslot	Number	Title	Authors
1	13:30-13:50	45	Weather-Optimal Control of a Dynamic Positioning Vessel Using Backstepping: Simulation and Model Experiment (Contributed Paper)	KIM, Young-Shik (Korea Research Institute of Ships and Ocean Engineering) 82920 Kim, Jinwhan (KAIST) 53223 Sung, Hong-Gun (Korea Research Institute of Ships and Ocean Engineering) 82923
2	13:50-14:10	99	MEMS-based Inertial Navigation on Dynamically Positioned Ships: Dead Reckoning (Late Contributed Paper)	Rogne, Robert Harald (Norwegian University of Science and Technology) 92190 Bryne, Torleiv H. (Norwegian University of Science and Technology) 82669 Fossen, Thor I. (NTNU) 10228 Johansen, Tor Arne (Norwegian University of Science and Technology) 10032
3	14:10-14:30	46	Comparison between Optimal Control Allocation with Mixed Quadratic & Linear Programming Techniques (Contributed Paper)	Grechi, Simone (University of Pisa) 83344 Caiti, Andrea (Univ. of Pisa) 13921
4	14:30-14:50	49	An On-site Current Profile Estimation Algorithm for a Moored Floating Structure (Contributed Paper)	Ren, Zhengru (Norwegian University of Science and Technology) 82473 Skjetne, Roger (Norwegian Univ Of Science And Technology) 26314
5	14:50-15:10	25	Three-Axis Motion Compensated Crane Head Control (Contributed Paper)	Henriksen, Vegard Wie (Norwegian University of Science and Technology) 91871 Røine, Audun Gerhardsen (Norwegian University of Science and Technology) 91872 Skjong, Espen (Norwegian University of Science and Technology / Ulstein Power &) 91870 Johansen, Tor Arne (Norwegian University of Science and Technology) 10032

WeCT2	Wednesday, September 14, 2016, 15:30-17:10, Track T2, Room T2
Dynamic positioning & position mooring systems for ships & platforms (2) 🌱	Regular Session
Chair: Asgeir Soerensen (10396)	Norwegian Univ. of Science and Tech.
Co-Chair: Øivind Kåre Kjerstad (46693)	The Univ. Centre in Svalbard

#	Subslot	Number	Title	Authors
1	15:30-15:50	66	An Output Feedback Controller with Improved Transient Response of Marine Vessels in Dynamic Positioning (Contributed Paper)	Vaernoe, Sverre Are Tuttoren (Norwegian University of Science and Technology) 83352 Brodtkorb, Astrid H (Norwegian University of Science and Technology) 89971 Skjetne, Roger (Norwegian Univ Of Science And Technology) 26314 Soerensen, Asgeir (Norwegian University of Science and Technology) 10396
2	15:50-16:10	36	A Robust Dynamic Positioning Tracking Control Law Mitigating Integral Windup (Contributed Paper)	Kjerstad, Øivind Kåre (The University Centre in Svalbard) 46693 Værnø, Sverre Are Tuttoren (Norwegian University of Science and Technology) 83352 Skjetne, Roger (Norwegian Univ Of Science And Technology) 26314
3	16:10-16:30	54	Experimental Evaluation of Sliding Mode Cooperative-Controlled DP Vessels (Contributed Paper)	Ianagui, André (Escola Politécnica da Universidade de São Paulo) 83514 Tannuri, Eduardo Aoun (University of Sao Paulo USP) 41872 Queiroz Filho, Asdrubal do Nascimento (Fundação de Apoio à Universidade de São Paulo CNPJ68314830/0001-) 42078
4	16:30-16:50	39	A Tension-based Position Estimation Solution of a Moored Structure and its Uncertain Anchor Positions (Contributed Paper)	Ren, Zhengru (Norwegian University of Science and Technology) 82473 Skjetne, Roger (Norwegian Univ Of Science And Technology) 26314
5	16:50-17:10	50	Comparing Controllers for Dynamic Positioning of Ships in Extreme Seas (Contributed Paper)	Rabanal, Ole Maurice Røste (Norwegian University of Science and Technology) 85695 Brodtkorb, Astrid H (Norwegian University of Science and Technology) 89971 Breivik, Morten (Norwegian University of Science and Technology) 13704

WeAT3	Wednesday, September 14, 2016, 10:00-11:40, Track T3, Room T3
Underwater Vehicles (1) 🚧	Regular Session
Chair: Zoran Vukic (30545)	Univ. of Zagreb Faculty of Electrical Engineering and Computing
Co-Chair: Francisco Teixeira (42316)	Inst. Superior Técnico, Univ. of Lisbon

#	Subslot	Number	Title	Authors
1	10:00-10:20	93	A Dynamic Model for Underwater Vehicle Maneuvering Near a Free Surface (Late Contributed Paper)	Battista, Thomas (Virginia Tech) 89833 Woolsey, Craig (Virginia Tech) 28819 Perez, Tristan (Queensland University of Technology) 10022 Valentinis, Francis (Defence Science and Technology Organisation) 71743
2	10:20-10:40	115	Experimental Validation of Magnetic Navigation of Marine Robotic Vehicles (Late Contributed Paper)	Teixeira, Francisco (Instituto Superior Técnico, Univ. of Lisbon) 42316 Quintas, João (Instituto Superior Técnico) 81347 Pascoal, Antonio M. (IST-ID, VAT 509830072) 23876
3	10:40-11:00	23	Underwater Vehicle Guidance Control Design within the DexROV Project: Preliminary Results (Contributed Paper)	De Palma, Daniela (University of Salento) 80609 Indiveri, Giovanni (University of Salento) 18570
4	11:00-11:20	77	A Control Framework for Biologically Inspired Underwater Swimming Manipulators Equipped with Thrusters (Contributed Paper)	Sverdrup-Thygeson, Jørgen (Norwegian University of Science and Technology) 91977 Kelasidi, Eleni (Norwegian University of Science and Technology) 83202 Pettersen, Kristin Y. (Norwegian Univ. of Science and Tech.) 24115 Gravdahl, Jan Tommy (Norwegian Univ. of Science & Tech.) 17301
5	11:20-11:40	97	Teleoperated trajectory tracking of remotely operated vehicles using spatial auditory interface (Late Contributed Paper)	Vasiljevic, Antonio (University of Zagreb, Faculty of Electrical Engineering and Compu) 46705 Vukic, Zoran (University of Zagreb Faculty of Electrical Engineering and Compu) 30545 Miskovic, Nikola (University of Zagreb Faculty of Electrical Engineering and Compu) 42321

WeBT3	Wednesday, September 14, 2016, 13:30-15:10, Track T3, Room T3
Underwater Vehicles (2) 🟢	Regular Session
Chair: Ingrid Schjølberg (40121)	Norwegian Univ. of Science and Tech.
Co-Chair: Esten Ingar Grøtli (17364)	SINTEF ICT

#	Subslot	Number	Title	Authors
1	13:30-13:50	32	Adaptable Joystick Control System for Underwater Remotely Operated Vehicles (Contributed Paper)	Henriksen, Eirik Hexeberg (Norwegian University of Science and Technology) 91914 Schjølberg, Ingrid (Norwegian University of Science and Technology) 40121 Gjersvik, Tor Berge (Norwegian University of Science and Technology) 91915
2	13:50-14:10	43	Towards More Autonomous ROV Operations: Scalable and Modular Localization with Experiment Data (Contributed Paper)	Grøtli, Esten Ingar (SINTEF ICT) 17364 Tjønnås, Johannes (SINTEF) 27393 Azpiazu, Jon (SINTEF ICT) 91933 Transeth, Aksel Andreas (SINTEF ICT) 33973 Ludvigsen, Martin (NTNU) 74880
3	14:10-14:30	42	Time Domain Modeling of ROV Umbilical Using Beam Equations (Contributed Paper)	Eidsvik, Ole Alexander Nørve (Norwegian University of Science and Technology) 91932 Schjølberg, Ingrid (Norwegian University of Science and Technology) 40121
4	14:30-14:50	55	Hydrodynamic Modelling for the Remotely Operated Vehicle Visor3 Using CFD (Contributed Paper)	Ramirez-Macias, Juan A. (Universidad Pontificia Bolivariana) 91935 Brongers, Persijn (Maritime Research Institute Netherlands MARIN) 91961 Rua, Santiago (Universidad Pontificia Bolivariana) 80706 Vasquez, Rafael E. (Universidad Pontificia Bolivariana) 80705
5	14:50-15:10	52	Measurement of Network Latency in Remote Presence Applications (Contributed Paper)	Omerdic, Edin (University of Limerick) 42394 Kaknjo, Admir (University of Limerick) 91958 Toal, Daniel (University of Limerick) 10233

WeCT3	Wednesday, September 14, 2016, 15:30-17:10, Track T3, Room T3
Underwater Vehicles (3) 🌿	Regular Session
Chair: Mogens Blanke (10024)	Tech. Univ. of Denmark
Co-Chair: Benoit Clement (14873)	ENSTA Bretagne

#	Subslot	Number	Title	Authors
1	15:30-15:50	64	Modeling of Underwater Swimming Manipulators (Contributed Paper)	Sverdrup-Thygeson, Jørgen (Norwegian University of Science and Technology) 91977 Kelasidi, Eleni (Norwegian University of Science and Technology) 83202 Pettersen, Kristin Y. (Norwegian Univ. of Science and Tech.) 24115 Gravdahl, Jan Tommy (Norwegian Univ. of Science & Tech.) 17301
2	15:50-16:10	38	Efficient Modelling Methodology for Reconfigurable Underwater Robots (Contributed Paper)	Nielsen, Mikkel Cornelius (Norwegian University of Science and Technology) 79727 Blanke, Mogens (Technical University of Denmark) 10024 Schjølberg, Ingrid (Norwegian University of Science and Technology) 40121
3	16:10-16:30	24	A Modeling and Control Approach for a Cubic AUV (Contributed Paper)	Clement, Benoit (ENSTA Bretagne) 14873 YANG, Rui (Ocean University of China) 91866 MANSOUR, Ali (ENSTA Bretagne) 91867 Ming, Li (Ocean University of China) 43579
4	16:30-16:50	96	A Nonlinear Fault-Tolerant Thruster Allocation Architecture for Underwater Remotely Operated Vehicles (Late Contributed Paper)	Corradini, Maria Letizia (Università di Camerino) 14997 Cristofaro, Andrea (University of Camerino) 44839
5	16:50-17:10	81	Modelling and Control of ASV Acting As Communication Node for Deep-Sea Applications (Contributed Paper)	Kurowski, Martin (University of Rostock) 43526 Rentzow, Erik (University of Rostock) 82893 Ritz, Sebastian (University of Berlin) 92003 Lampe, Bernhard P. (Univ of Rostock) 20253 Jeinsch, Torsten (University of Rostock) 18824

ThAT1	Thursday, September 15, 2016, 09:30-11:30, Track T1, Room T1
Nonlinear and Fault Tolerant Control in Marine Vessels 🌱	Regular Session
Chair: Morten Breivik (13704)	Norwegian Univ. of Science and Tech.
Co-Chair: Lokukaluge Prasad Perera (46632)	MARINTEK

#	Subslot	Number	Title	Authors
1	09:30-09:50	28	Nonlinear Observer-Based Ship Control and Disturbance Compensation (Contributed Paper)	Aschemann, Harald (University of Rostock) 12697 Wirtensohn, Stefan (University of Applied Sciences Konstanz) 70551 Reuter, Johannes (University of Applied Sciences) 24849
2	09:50-10:10	9	Comparing Combinations of Linear and Nonlinear Feedback Terms for Motion Control of Marine Surface Vessels (Contributed Paper)	Sørensen, Mikkel Eske Nørgaard (Norwegian University of Science and Technology) 82064 Breivik, Morten (Norwegian University of Science and Technology) 13704
3	10:10-10:30	80	A Nonlinear System with Coupled Switching Surfaces for Remotely Operated Vehicle Control (Contributed Paper)	Dyda, Alexander (Maritime State Univ) 15841 Oskin, Dmitry A. (Maritime State University, Vladivostok, Russia) 47488 Longhi, Sauro (Università Politecnica delle Marche) 21276 Monteriù, Andrea (Università Politecnica delle Marche) 22591
4	10:30-10:50	68	Active FTC for Waterjets Propelled Ships Based on Adaptive Estimator and Sliding Techniques (Contributed Paper)	NEJIM, SAMIR (U.R. Automatique et Robotique Marine) 91979 Rebhi, Hassene (UR Automatique et Robotique Marine) 93311
5	10:50-11:10	82	Statistical Filter Based Sensor and DAQ Fault Detection for Onboard Ship Performance and Navigation Monitoring Systems (Contributed Paper)	Perera, Lokukaluge Prasad (MARINTEK) 46632
6	11:10-11:30	85	Potential of Acoustic Emission in Unsupervised Monitoring of Gas-Fuelled Engines (Contributed Paper)	Bondarenko, Oleksiy (National Institute of Maritime, Port and Aviation Technology) 92008 Fukuda, Tetsugo (Institute of Maritime Port and Aviation technology) 92005

ThAT2	Thursday, September 15, 2016, 09:30-11:30, Track T2, Room T2
Ship roll stabilization techniques 🌿	Regular Session
Chair: Bernhard P. Lampe (20253)	Univ. of Rostock
Co-Chair: Yuri Kapitanyuk (45383)	Univ. of Groningen

#	Subslot	Number	Title	Authors
1	09:30-09:50	63	Roll Damping Using Voith Schneider Propeller: A Repetitive Control Approach (Contributed Paper)	Schubert, Agnes (University of Rostock) 34909 Koschorrek, Philipp (University of Rostock) 73641 Kurowski, Martin (University of Rostock) 43526 Jeinsch, Torsten (University of Rostock) 18824 Lampe, Bernhard P. (Univ of Rostock) 20253
2	09:50-10:10	102	Use of Tunnel and Azimuthing Thrusters for Roll Damping of Ships (Late Contributed Paper)	Rudaa, Sigbjørn Eng (1990) 92292 Steen, Sverre (NTNU) 92293 Hassani, Vahid (Department of Marine Technology) 17798
3	10:10-10:30	83	Optimal Controllers for Rudder Roll Damping with an Autopilot in the Loop (Contributed Paper)	Kapitanyuk, Yuri (University of Groningen) 45383 Proskurnikov, Anton (University of Groningen) 24431 Cao, Ming (University of Groningen) 14027
4	10:30-10:50	105	Roll Stabilization Control of Sailboats (Late Contributed Paper)	Wille, Kristian (NTNU) 92189 Hassani, Vahid (Department of Marine Technology) 17798 Sprenger, Florian (The Norwegian Marine Technology Research Institute) 92307

ThAT3	Thursday, September 15, 2016, 09:30-11:30, Track T3, Room T3
Energy and Marine Systems 🌱	Regular Session
Chair: Hongzhong Zhu (48624)	Kyushu Univ.
Co-Chair: Michel Rejani Miyazaki (91894)	NTNU

#	Subslot	Number	Title	Authors
1	09:30-09:50	14	Dynamic Model and Nonlinear Control for a Two Degrees of Freedom First Generation Tidal Energy Converter (Contributed Paper)	Fernández, Lorenzo (E.T.S.de Ingenieros Industriales. Universidad de Castilla-La Man) 91440 Segura, Eva (E.T.S. de Ingenieros Industriales. Universidad de Castilla-La Ma) 91439 Portilla, Marina P. (E.T.S. de Ingenieros Navales. Universidad Politécnica de Madrid) 91438 Morales-Herrera,, Rafael (University of Castilla-La Mancha,) 67782 Somolinos, Jose A (E.T.S. Ingenieros Navales. Universidad Politécnica de Madrid) 91437
2	09:50-10:10	29	A Study on Control of Wave Energy Converter for Motion Suppression of Semisubmersible (Contributed Paper)	Zhu, Hongzhong (Kyushu University) 48624 Hu, Changhong (Kyushu University) 91902
3	10:10-10:30	62	Reduced Order Model for Control Applications in Offshore Wind Turbines (Contributed Paper)	Smilden, Emil (Norwegian University of Science and Technology) 91975 Horn, Jan-Tore H. (Norwegian University of Science and Technology) 91974 Soerensen, Asgeir (Norwegian University of Science and Technology) 10396 Amdahl, Jorgen (Norwegian University of Science and Technology) 91976
4	10:30-10:50	37	Estimation and Optimization of Vessel Fuel Consumption (Contributed Paper)	Lundh, Michael (ABB AB, Corporate Research) 91925 Garcia-Gabin, Winston (ABB Corporate Research) 16837 Tervo, Kalevi (ABB Oy, Marine) 91924 Lindkvist, Rickard (ABB AB, Corporate Research) 91926
5	10:50-11:10	26	Hybrid Marine Power Plants Model Validation with Strategic Loading (Contributed Paper)	Miyazaki, Michel Rejani (NTNU) 91894 Soerensen, Asgeir (Norwegian University of Science and Technology) 10396 Vartdal, Bjørn Johan (DNV GL) 93072
6	11:10-11:30	67	Waste-heat recovery estimation on ships by means of Conditionally-Gaussian Filtering (Contributed Paper)	Nguyen, Philipp (Aalto University) 86747 Tenno, Robert (Aalto University School of Electrical Engineering) 27259

ThCT1	Thursday, September 15, 2016, 15:15-17:15, Track T1, Room T1
European Projects on Marine Robotics 🌱	Regular Session
Chair: Antonio M. Pascoal (23876)	IST-ID, VAT 509830072
Co-Chair: Vahid Hassani (17798)	Department of Marine Tech.
Organizer: Hassani, Vahid (17798)	Department of Marine Tech.

#	Subslot	Number	Title	Authors
0		4	Invited Session on EU funded Marine Robotics and Applications (Invited Session Proposal)	Hassani, Vahid (Department of Marine Tech.) 17798
1	15:15-15:35	89	Dexterous Undersea Interventions with Far Distance Onshore Supervision: The DexROV Project (Invited Paper)	Gancet, Jeremi (Space Applications Services) 45862 Weiss, Peter (COMEX) 80756 Antonelli, Gianluca (Univ. of Cassino and Southern Lazio) 12553 Pfingsthorn, Max Folkert (Jacobs University Bremen) 83364 Calinon, Sylvain (Idiap Research Institute) 80757 Turetta, Alessio (Graal Tech S.r.l.) 27657 Walén, Cees (EJR Quartz BV) 80758 Urbina, Diego (Space Applications Services) 83361 Govindaraj, Shashank (Space Applications Services NV) 92116 Mueller, Christian Atanas (Jacobs University Bremen) 63234 Martinez, Xavier (Space Applications Services NV) 92117 Fromm, Tobias (Jacobs University Bremen) 92122 Chemisky, Bertrand (COMEX) 92119 Indiveri, Giovanni (University of Salento) 18570 Casalino, Giuseppe (University of Genova) 52731 Di Lillo, Paolo Augusto (Interuniversity Center of Integrated Systems for the Marine Envi) 92120 Simetti, Enrico (University of Genova) 72610 De Palma, Daniela (University of Salento) 80609 Birk, Andreas (Jacobs University) 80752 Tanwani, Ajay (IDIAP) 83365 Havoutis, Ioannis (IDIAP) 92121 Caffaz, Andrea (Graal Tech S.r.l.) 80675 Guilpain, Lisa (EJR Quartz) 83366 Letier, Pierre (Space Applications Services) 83362
2	15:35-15:55	101	CADDY Project, Year 2: The First Validation Trials (Invited Paper)	Miskovic, Nikola (University of Zagreb Faculty of Electrical Engineering and Compu) 42321 Pascoal, Antonio M. (ISR-Inst. Superior Tecnico) 23876

				Bibuli, Marco (CNR-ISSIA) 42045 Caccia, Massimo (CNR-ISSIA) 30840 Neasham, Jeffrey (University of Newcastle) 80750 Birk, Andreas (Jacobs University) 80752 Egi, Murat (Divers Alert Network Europe) 80753 Grammer, Karl (University of Vienna) 80754 Marroni, Alessandro (Divers Alert Network Europe) 80755 Vasilijevic, Antonio (University of Zagreb, Faculty of Electrical Engineering and Compu) 46705 Vukic, Zoran (University of Zagreb) 30545
3	15:55-16:15	70	The European Marie-Curie Training Network ROBOCADEMY (Invited Paper)	Vögele, Thomas (DFKI GmbH, German Research Center for Artificial Intelligence) 80743 Wehbe, Bilal (German Research Center for Artificial Intelligence) 91985 Nascimento, Samy (German Research Center for Artificial Intelligence) 91986 Runge, Tom (German Research Center for Artificial Intelligence) 91984 Kirchner, Frank (DFKI RIC, University of Bremen) 60881
4	16:15-16:35	107	Overview and First Year Progress of the Widely Scalable Mobile Underwater Sonar Technology H2020 Project (Invited Paper)	Indiveri, Giovanni (University of Salento) 18570 Antonelli, Gianluca (Univ. of Cassino and Southern Lazio) 12553 Arrichiello, Filippo (Univ of Cassino and Southern Lazio) 12659 Caffaz, Andrea (Graal Tech S.r.l.) 80675 Caiti, Andrea (Univ. of Pisa) 13921 Casalino, Giuseppe (University of Genova) 52731 Catenacci Volpi, Nicola (University of Hertfordshire) 87946 de Jong, Ivan Bielic (Geo Marine Survey Systems) 80676 De Palma, Daniela (University of Salento) 80609 Duarte, Henrique (Geosurveys Consultores) 80677 Gomes, João (ISR - Instituto Superior Técnico) 17153 Grimsdale, Jonathan (CGG) 92460 Jesus, Sergio (CINTAL) 80678 Kebkal, Konstantin (EvoLogics) 80679 Kelholt, Elbert (Geo Marine Survey Systems) 91959 Pascoal, Antonio M. (IST-ID, VAT 509830072) 23876 Polani, Daniel (University of Hertfordshire) 80680 Pollini, Lorenzo (Univ. of Pisa) 24289 Simetti, Enrico (University of Genova) 72610 Turetta, Alessio (Graal Tech S.r.l.) 27657

5	16:35-16:55	71	Next Generation Inspection, Maintenance and Repair Operations (Invited Paper)	Schjølberg, Ingrid (Norwegian University of Science and Technology) 40121 Gjersvik, Tor Berge (Norwegian University of Science and Technology) 91915 Transeth, Aksel Andreas (SINTEF ICT) 33973 Utne, Ingrid Bouwer (NTNU) 83347
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FrAT1	Friday, September 16, 2016, 09:30-11:30, Track T1, Room T1
Modeling, Identification, Simulation, and Control of Marine Systems (1) 🌱	Regular Session
Chair: Gianluca Antonelli (12553)	Univ. of Cassino and Southern Lazio
Co-Chair: Kazuhiko Hasegawa (42105)	Osaka Univ.

#	Subslot	Number	Title	Authors
1	09:30-09:50	30	Towards an Approach to 6 DOF Inertial Kinematics (Contributed Paper)	Korte, Holger (Jade - University of Applied Sciences) 42361 Wesuls, Jan-Hendrik (Jade University of Applied Sciences) 91825 Stuppe, Sven (Jade University) 91823 TAKAGI, Tsutomu (Hokkaido University) 91803
2	09:50-10:10	57	Study on Turning Manoeuvre of Catamaran Surface Vessel with a Combined Experimental and Simulation Method (Contributed Paper)	pandey, jyotsna (PHD student, Osaka University, Japan) 83188 Hasegawa, Kazuhiko (Osaka University) 42105
3	10:10-10:30	53	Shape Estimate of a Streamer of Hydrophones Towed by an Autonomous Underwater Vehicle (Contributed Paper)	Arrichiello, Filippo (Univ of Cassino and Southern Lazio) 12659 Antonelli, Gianluca (Univ. of Cassino and Southern Lazio) 12553 Kelholt, Elbert (Geo Marine Survey Systems) 91959
4	10:30-10:50	113	Marine Vehicles with Streamers for Geotechnical Surveys: Modeling, Positioning, and Control (Late Contributed Paper)	Caldeira Abreu, Pedro (Laboratory of Robotics and Systems in Engineering and Science (L) 79903 Morishita, Helio Mitio (University of São Paulo) 41976 Pascoal, Antonio M. (IST-ID, VAT 509830072) 23876
5	10:50-11:10	92	Complementary Control Allocation for a Lagrangian Seafloor Imaging Platform (Contributed Paper)	Snyder, William (Graduate School of Oceanography, University of Rhode Island) 92147 Roman, Christopher (Graduate School of Oceanography, University of Rhode Island) 92146 Licht, Stephen (University of Rhode Island) 92145
6	11:10-11:30	47	Hand Gesture Recognition from Multibeam Sonar Imagery (Contributed Paper)	Guštin, Franka (University of Zagreb) 91957 Rendulic, Ivor (University of Zagreb, Faculty of Electrical Engineering and Comp) 87980 Miskovic, Nikola (University of Zagreb Faculty of Electrical Engineering and Compu) 42321 Vukic, Zoran (University of Zagreb Faculty of Electrical Engineering and Compu) 30545

FrBT1	Friday, September 16, 2016, 12:30-14:30, Track T1, Room T1
Modeling, Identification, Simulation, and Control of Marine Systems (2) 🌿	Regular Session
Chair: Asgeir Soerensen (10396)	Norwegian Univ. of Science and Tech.
Co-Chair: Astrid H Brodtkorb (89971)	Norwegian Univ. of Science and Tech.

#	Subslot	Number	Title	Authors
1	12:30-12:50	76	Construction and Control of an Autonomous Sail Boat (Contributed Paper)	Stenersen, Henning (NTNU) 91996
2	12:50-13:10	104	Modeling and Course Control of Sailboats (Late Contributed Paper)	Wille, Kristian (NTNU) 92189 Hassani, Vahid (Department of Marine Technology) 17798 Sprenger, Florian (The Norwegian Marine Technology Research Institute) 92307
3	13:10-13:30	72	Disturbance Estimation and Wave Filtering Using an Unscented Kalman Filter (Contributed Paper)	Wirtensohn, Stefan (University of Applied Sciences Konstanz) 70551 Schuster, Michael (HTWG Konstanz) 74368 Reuter, Johannes (University of Applied Sciences) 24849
4	13:30-13:50	88	Hybrid Observer Combining Measurements of Different Fidelities (Contributed Paper)	Brodtkorb, Astrid H (Norwegian University of Science and Technology) 89971 Teel, Andrew R. (Univ. of California at Santa Barbara) 27238 Soerensen, Asgeir (Norwegian University of Science and Technology) 10396
5	13:50-14:10	106	Robust Lateral Control of a Surface Effect Ship Using H_{∞} Mixed Sensitivity Synthesis (Late Contributed Paper)	Vamråk, Vegard (NTNU) 92427 Bua, Nils Haktor (NTNU) 92428 Hassani, Vahid (Department of Marine Technology) 17798 Auestad, Øyvind (Umoë Mandal) 62914
6	14:10-14:30	79	Marine Engine Operating Regions under Principal Component Analysis to Evaluate Ship Performance and Navigation Behavior (Contributed Paper)	Perera, Lokukaluge Prasad (MARINTEK) 46632 Mo, Brage (Norwegian Marine Technology Research Institute) 83234

FrAT2	Friday, September 16, 2016, 09:30-11:30, Track T2, Room T2
Application of Marine Robotics in Marine Science 🌱	Regular Session
Chair: Geir Johnsen (75022)	NTNU
Co-Chair: Fraser Macdonald (93344)	SAMS
Organizer: Rajan, Kanna (81858)	FEUP, Univ. of Porto
Organizer: Johnsen, Geir (75022)	NTNU

#	Subslot	Number	Title	Authors
0		1	Autonomous Platforms for Environmental Monitoring and Exploration (Invited Session Proposal)	Rajan, Kanna (FEUP, Univ. of Porto) 81858 Johnsen, Geir (NTNU) 75022
1	09:30-09:50	116	The Use of Underwater Hyperspectral Imaging Deployed on Remotely Operated Vehicles - Methods and Applications (Late Invited Paper)	Johnsen, Geir (NTNU) 75022 Ludvigsen, Martin (NTNU) 74880 Soerensen, Asgeir (Norwegian University of Science and Technology) 10396 Martin Sandvik Aas, Lars (Ecotone) 92946
2	09:50-10:10	119	The Scottish Marine Robotics Facility: Use of Unmanned Vehicles for Environmental Measurement, Monitoring and Decision Making (Late Invited Paper)	Macdonald, Fraser (SAMS) 93344 Weeks, Rebecca J. (The Scottish Association for Marine Science) 93345 Houpert, Loïc (The Scottish Association for Marine Science) 93346 Howe, John A. (The Scottish Association for Marine Science) 93419 Jones, Sam C. (Scottish Association for Marine Science) 93444
3	10:10-10:30	118	A New Method for Underwater Archaeological Surveying Using Sensors and Unmanned Platforms (Late Invited Paper)	Odegard, Oyvind (Norwegian University of Science and Technology (NTNU)) 81403 Soerensen, Asgeir (Norwegian University of Science and Technology) 10396 Hansen, Roy E. (Norwegian Defence Research Establishment (FFI)) 93255 Ludvigsen, Martin (NTNU) 74880
4	10:30-10:50	117	Ice-Tethered Observational Platforms in the Arctic Ocean Pack Ice (Late Invited Paper)	Berge, Jørgen (UiT The Arctic University of Norway) 93186 Geoffroy, Maxime (UiT) 93207 Johnsen, Geir (NTNU) 75022 Cottier, Finlo (Dr.) 93208 Bluhm, Bodil (UiT) 93209

				Vogedes, Daniel (UiT The Arctic University of Norway) 93325
5	10:50-11:10	10	Towards Visual Detection, Mapping and Quantification of Posidonia Oceanica Using a Lightweight AUV (Contributed Paper)	Bonin-Font, Francisco Jesús (University of the Balearic Islands) 80696 Massot Campos, Miquel (University of the Balearic Islands) 80698 Oliver, Gabriel (University of the Balearic Islands) 42397
6	11:10-11:25	NO	subCULTron - a new approach to long-term underwater autonomy	Thomas Schmickl (Artificial Life Lab of the Department of Zoology, Karl-Franzens University Graz) 77830

I should add it manually

FrBT2	Friday, September 16, 2016, 12:30-14:30, Track T2, Room T2
Cooperative Navigation and Control 🌱	Regular Session
Chair: Nikola Miskovic (42321)	Univ. of Zagreb Faculty of Electrical Engineering and Computing
Co-Chair: Thomas Glotzbach (17099)	Tech. Univ. Ilmenau

#	Subslot	Number	Title	Authors
1	12:30-12:50	91	Acoustic Based Navigation of Cooperative Marine Robots with Advanced Filter Techniques (Contributed Paper)	Glotzbach, Thomas (Technische Universitaet Ilmenau) 17099 Grebner, Anna-Maria (Technische Universitaet Ilmenau) 92051 Ament, Christoph (Technische Universitaet Ilmenau) 12449
2	12:50-13:10	78	Trust Consensus Protocol for Heterogeneous Underwater Robotic Systems (Contributed Paper)	Mazdin, Petra (University of Zagreb) 91992 Arbanas, Barbara (University of Zagreb, Faculty of Electrical Engineering and Comp) 91994 Haus, Tomislav (University of Zagreb) 91993 Bogdan, Stjepan (Univ. of Zagreb) 13509 Petrovic, Tamara (University of Zagreb) 76047 Miskovic, Nikola (University of Zagreb Faculty of Electrical Engineering and Compu) 42321
3	13:10-13:30	40	Experimental Testing of a Cooperative ASV-ROV Multi-Agent System (Contributed Paper)	Conte, Giuseppe (Universita' Politecnica delle Marche) 14969 Scaradozzi, David (Università Politecnica delle Marche) 47735 Mannocchi, Daniele (Università Politecnica delle Marche) 91930 Raspa, Paolo (Università Politecnica delle Marche) 46871 Panebianco, Luca (UNIVPM) 91893 Screpanti, Laura (Università Politecnica delle Marche) 91892
4	13:30-13:50	114	Cooperative Surface/Underwater Navigation for AUV Path Following Missions (Late Contributed Paper)	Nad, Dula (University of Zagreb, Faculty of Elelctrical Engineering and Com) 46752 Ribeiro, Miguel (ISR-Inst. Superior Tecnico) 92553 Silva, Henrique (ISR-Inst. Superior Tecnico) 92566 Ribeiro, Jorge (IST/ISR) 93324 Caldeira Abreu, Pedro (Laboratory of Robotics and Systems in Engineering and Science (L) 79903 Miskovic, Nikola (University of Zagreb Faculty of

				Electrical Engineering and Compu) 42321 Pascoal, Antonio M. (ISR-Inst. Superior Tecnico) 23876
5	13:50-14:10	94	Energy-Efficient Environmentally Adaptive Consensus-Based Formation Control with Collision Avoidance for Multi-Vehicle Systems (Late Contributed Paper)	Babić, Anja (University of Zagreb) 91990 Lončar, Ivan (University of Zagreb) 91991 Miskovic, Nikola (University of Zagreb Faculty of Electrical Engineering and Compu) 42321 Vukic, Zoran (University of Zagreb) 30545
6	14:10-14:30	27	A Distributed, Passivity-Based Control of Autonomous Mobile Sensors in an Underwater Acoustic Network (Contributed Paper)	Fabiani, Filippo (University of Pisa) 91863 Fenucci, Davide (University of Pisa) 72994 Fabbri, Tommaso (University of Pisa) 91898 Caiti, Andrea (Univ. of Pisa) 13921

FrBT3	Friday, September 16, 2016, 12:30-14:30, Track T3, Room T3
Guidance, Navigation and Control (GNC) of Marine Vessels 🌿	Regular Session
Chair: Kazuhiko Hasegawa (42105)	Osaka Univ.
Co-Chair: Martin Syre Wiig (83055)	Norwegian Univ. of Science and Tech.

#	Subslot	Number	Title	Authors
1	12:30-12:50	98	Attitude and Heave Estimation for Ships using MEMS-based Inertial Measurements (Late Contributed Paper)	Bryne, Torleiv H. (Norwegian University of Science and Technology) 82669 Rogne, Robert Harald (Norwegian University of Science and Technology) 92190 Fossen, Thor I. (NTNU) 10228 Johansen, Tor Arne (Norwegian University of Science and Technology) 10032
2	12:50-13:10	100	An Automatic Ship's Maneuvering System Using Optimal Preview Sliding Mode Controller with Adaptation Mechanism (Late Contributed Paper)	Mizuno, Naoki (Nagoya Inst. of Technology) 22485 Saka, Naoki (Nagoya Institute of Technology) 92191 Katayama, Takuya (Nagoya Institute of Technology) 92193
3	13:10-13:30	61	Generalized Dynamic Inversion Based Attitude Control of Autonomous Underwater Vehicles (Contributed Paper)	Ansari, Uzair (King Abdulaziz University) 83695 Bajodah, Abdulrahman H. (King Abdulaziz Univ) 12883 Alam, Saqib (Institute of Space Technology) 93331
4	13:30-13:50	35	Integral Line-Of-Sight Guidance of Underwater Vehicles Without Neutral Buoyancy (Contributed Paper)	Wiig, Martin Syre (Norwegian University of Science and Technology) 83055 Caharija, Walter (Lloyd's Register) 61670 Krogstad, Thomas (Norwegian Defence Research Establishment) 19993 Pettersen, Kristin Y. (Norwegian Univ. of Science and Tech.) 24115
5	13:50-14:10	13	GPS-less Coastal Navigation using Marine Radar for USV Operation (Contributed Paper)	Han, Jungwook (KAIST) 83267 Park, Jeonghong (KAIST) 83274 Kim, Jinwhan (KAIST) 53223
6	14:10-14:30	2	Fuzzy Reasoned Waypoint Controller for Automatic Ship Guidance (Contributed Paper)	Ahmed, Yaseen Adnan (Kobe University) 59267 Hasegawa, Kazuhiko (Osaka University) 42105