INSTITUTE FOR SYSTEMS AND ROBOTICS

Annual Report – 2016

Lisbon Pole

Torre Norte,
Piso 7 IST,
Av. Rovisco Pais
1049 – 001 Lisboa
Portugal

1. EXECUTIVE SUMMARY

During the year of 2016 there <u>were no research and technological activities taking place in the framework of the Lisbon Pole of ISR, nor were financed through ISR (NIF 502 854 227)</u>. All the research activities were carried out in the context of the research unit ISR/IST where all contracts and activities took place at Instituto Superior Técnico.

For informative purposes only, we describe the scientific publications and doctoral theses that were produced by the research group hosted at the Instituto Superior Técnico, in spite of the fact that none of these activities were developed in the context the Lisbon Pole of ISR.

Contents

2. PUBLICATIONS

A. International Journals,

[1] Pedro Serra, Rita Cunha, Tarek Hamel, David Cabecinhas, Carlos Silvestre, Landing of a Quadrotor on a Moving Target using Dynamic Image-Based Visual Servo Control, IEEE Transactions on Robotics, Volume 32, Issue 6, Pages 1524- 1535, December 2016

[2] Dario Figueira, Matteo Taiana, Jacinto Nascimento, Alexandre Bernardino, A Window-Based Classifier for Automatic Video-Based Reidentification, IEEE Transactions on Systems, Man, and Cybernetics: Systems, Vol 46, Issue 12, pp 1736 - 1747, December, 2016 - PDF

[3] Margarida Silveira, S. Heleno, P. Pina, Texton-Based Ensemble Classification of Landslide Source and Transport Areas in VHR Imagery, IEEE Geoscience and Remote Sensing Letters, Vol. 13, No. 12, 1787 - 1791, December, 2016

[4] Nuno Fachada, J. Rodrigues, V. V. Lopes, R. C. Martins, Agostinho Rosa, micompr: An R Package for Multivariate Independent Comparison of Observations, The R Journal Vol. 8/2, 405-420, December, 2016

[5] Sofija Spasojevic, T. Ilić, S. Milanović, V. Potkonjak, A. Rodić, José Santos-Victor, Combined Vision and Wearable Sensors-based System for Movement Analysis in Rehabilitation, accepted, Methods of Information in Medicine, 2016

[6] Célia Ramos, Marisol B. Correia, João Rodrigues, Carlos M.R. Sousa, Pedro M. Cascada, Hotel websites characterisation framework for consumer's information needs, Tourism & Management Studies, Volume 12, nº 1, pp. 25-39, , 2016 - PDF

[7] Rodrigo Ventura, Four decades of AI in Portugal, AI Magazine, 37(4):107–109, December, 2016

[8] A.S. Ribeiro, F. A. Carvalho, J. Figueiredo, R. Carvalho, T. Mestre, J. Monteiro, A. F. Guedes, M. Fonseca, João Sanches, R. Seruca, N. C. Santos, J. Paredes, Atomic force microscopy and graph analysis to study the P-cadherin/SFK mechanotransduction signalling in breast cancer cells, Nanoscale, DOI: 10.1039/C6NR04465D, 2016

[9] Sérgio Brás, Maziar Izadi, Carlos Silvestre, Amit Sanyal, and Paulo Oliveira, Nonlinear Observer for 3D Rigid Body Motion Estimation using Doppler Measurements, IEEE Transactions on Automatic Control, Volume 61, Issue 11, Pages 3580- 3585, November 2016.

[10] Miguel Aragão, Plinio Moreno, Alexandre Bernardino, Middleware Interoperability for Robotics: A ROS–YARP Framework, Frontiers in Robotics and AI, Vol. 3, October, 2016

[11] Nuno Fachada, Vitor Lopes, R. C. Martins, Agostinho Rosa, SimOutUtils – Utilities for Analyzing Time Series Simulation Output, Journal of Open Research Software. 4(1), p.e38, 2016

[12] Breno C. Pinheiro, Ubirajara F. Moreno, João T. B. de Sousa, Orlando Rodriguez, Kernel functions based models for acoustic localization of underwater vehicles, IEEE Journal of Oceanic Engineering, October, 2016 - PDF

[13] Catarina Barata, M. E. Celebi, Jorge S. Marques, J. Rozeira, Clinically Inspired Analysis of Dermoscopy Images using a Generative Model, Computer Vision and Image Understanding (CVIU), Vol. 151, Issue C, pp. 124–137, October, 2016

[14] Joel Reis, Marco Morgado, Pedro Batista, Paulo Oliveira, Carlos Silvestre, Design and Experimental Validation of a USBL Underwater Acoustic Positioning System, Sensors, Vol. 16, No. 9, September , 2016

[15] Joel Reis, Marco Morgado, Pedro Batista, Paulo Oliveira, Carlos Silvestre, Design and Experimental Validation of a USBL Underwater Acoustic Positioning System, MDPI Sensors, Volume 16, Issue 1491, Pages 1-23, September 2016.

[16] J. Cruz, M. Roinishvili, E. Chkonia, M. Herzog, Higher N1 responses in relatives of schizophrenia patients than controls in visual backward masking, Journal of Vision 16(12):1223, September, 2016

[17] Pedro Vicente, Lorenzo Jamone, Alexandre Bernardino, Robotic hand pose estimation based on stereo vision and GPU-enabled internal graphical simulation, Journal of Intelligent & Robotic Systems, Vol. 83, Issue 3, pp. 339–358, September, 2016

[18] Teresa Murta, U. J. Chaudhary, T. Tierney, Andre Dias, M. Leite, D. W. Carmichael, Patrícia Figueiredo, L. Lemieux, Phase-amplitude coupling and the BOLD signal: A simultaneous intracranial EEG (icEEG)-fMRI study in humans performing a finger-tapping task, Neuroimage [Epub ahead of print], August , 2016

[19] Rodolfo Abreu, Sandro Nunes, A. Leal, Patrícia Figueiredo, Physiological noise correction using ECG-derived respiratory signals for enhanced mapping of spontaneous neuronal activity with simultaneous EEG-fMRI, Neuroimage [Epub ahead of print], August, 2016

[20] H. Gazzah, J. P. Delmas, Sérgio Jesus, Direction Finding Arrays of Directional Sensors for Randomly Located Sources, IEEE Transactions on Aerospace and Electronic Systems, Vol. 52, No. 4, 1995-2003, August , 2016

[21] P. Lopes, Alberto Vale, Rodrigo Ventura, Human machine interface to manually drive rhombic like vehicles such as transport casks in ITER, IFAC-PapersOnLine, 49(15):248–253, August, 2016 - PDF

[22] Teresa Murta, L. Hu, T. Tierney, U. J. Chaudhary, M. C. Walker, D. W. Carmichael, Patrícia Figueiredo, L. Lemieux, A study of the electro-haemodynamic coupling using simultaneously acquired intracranial EEG and fMRI data in humans, Neuroimage [Epub ahead of print], August, 2016

[23] N. Miskovic, M. Bibuli, A. Birk, M. Caccia, M. Egi, K. Grammer, A. Marroni, J. Neasham, A. Pascoal, A. Vasilijevic, Z. Vukic, CADDY—Cognitive Autonomous Diving Buddy: Two Years of Underwater Human-Robot Interaction, Marine Technology Society Journal, Volume 50, Number 4, July/August 2016, pp. 54-66(13)

[24] Venanzio Cichella, Ronald Choe, S. Bilal Mehdi, Enric Xargay, Naira Hovakimyan, Vladimir Dobrokhodov, Isaac Kaminer, António M. Pascoal, and A. Pedro Aguiar, Safe Coordinated Maneuvering of Teams of Multirotor Unmanned Aerial Vehicles, IEEE Control Systems Magazine, Vol. 36, No.4, August 2016, pp. 59-82.

[25] Martim Brandão, K. Hashimoto, José Santos-Victor, A. Takanishi, Footstep Planning for Slippery and Slanted Terrain Using Human-Inspired Models, IEEE Transactions on Robotics, Vol. 32, Issue 4, pp. 868 - 879, August, 2016

[26] Lorenzo Jamone, E. Ugur, A. Cangelosi, L. Fadiga, Alexandre Bernardino, J. Piater, José Santos-Victor, Affordances in psychology, neuroscience and robotics: a survey, IEEE Transactions on Cognitive and Developmental Systems, July, 2016

[27] Joana Pinto, J. Jorge, I. Sousa, P. Vilela, Patrícia Figueiredo, Fourier modeling of the BOLD response to a breath-hold task: Optimization and reproducibility, Neuroimage, 135:223-31, July, 2016

[28] Rodolfo Abreu, M. Leite, J. Jorge, F. Grouiller, W. van der Zwaag, A. Leal, Patrícia Figueiredo, Ballistocardiogram artifact correction taking into account physiological signal preservation in simultaneous EEG-fMRI, Neuroimage, 135:45-63, July, 2016

[29] J. Kalwa, D. Tietjen, M. Carreiro-Silva, J. Fontes, L. Brignone, N. Gracias, P. Ridao, M. Pfingsthorn, A. Birk, T. Glotzbach, S. Eckstein, M. Caccia, J. Alves, T. Furfaro, J. Ribeiro, A. Pascoal, The European Project MORPH: Distributed UUV Systems for Multimodal, 3D Underwater Surveys, Marine Technology Society Journal, Volume 50, Number 4, July/August 2016, pp. 26-41(16)

[30] L. Saba, N. Dey, A. S. Ashour, S. Samanta, S. S. Nath, S. Chakraborty, João Sanches, D. Kumar, R. T. Marinho, J. S. Suri, Automated stratification of liver disease in ultrasound: An online accurate feature classification paradigm, Computer Methods and Programs in Biomedicine, Vol. 130, pp. 118-134, July, 2016

[31] Meysam Basiri, F. Schill, Pedro Lima, D. Floreano, On-Board Relative Bearing Estimation for Teams of Drones Using Sound, IEEE Robotics and Automation Letters, Vol. 1, No. 2, pp. 820-827, July, 2016 - PDF

[32] Pedro Fazenda, Pedro Lima, P. Carreira, Context-based thermodynamic modeling of buildings spaces, Energy and Buildings, Elsevier, Vol. 124, pp. 164-177, July, 2016

[33] Marco Stošić, João Xavier, Marija Dodig, Projection on the intersection of convex sets, Linear Algebra and Its Applications, Vol. 509, No. 8-9, pp. 191-205, July, 2016

[34] P. Abreu, G. Antonelli, F. Arrichiello, A. Caffaz, A. Caiti, G. Casalino, N. Volpi, G. Indiveri, I. Bielic de Jong, D. de Palma, H. Duarte, J. Gomes, J. Grimsdale, Sérgio Jesus, K. Kebkal, E. Kelholt, António Pascoal, D. Polani, L. Pollini, A. Turetta, E. Simetti, Widely scalable Mobile Underwater Sonar Technology: an overview of the H2020 WiMUST project, Journal of Marine Technology Society, Vol.50(4), pp.42-53, July, 2016

[35] Dragana Bajovic, Jose M. F. Moura, João Xavier, Bruno Sinopoli, Distributed Inference Over Directed Networks: Performance Limits and Optimal Design, IEEE Transactions on Signal Image Processing, Vol. 64, No. 13, July, 2016

[36] E. Falotico, Nino Cauli, P. Kryczka, K. Hashimoto, A. Berthoz, A. Takanishi, P. Dario, C. Laschi, Head stabilization in a humanoid robot: models and implementations, Autonomous Robots, pp. 1–17, July, 2016

[37] H. Gazzah, J. P. Delmas, Sérgio Jesus, Direction Finding Arrays of Directional Sensors for Randomly Located Sources, to appear in IEEE TAES - IEEE Transactions on Aerospace and Electronic Systems, 2016

[38] Pedro Lourenço, Bruno J. N. Guerreiro, Pedro Batista, Paulo Oliveira, Carlos Silvestre, Simultaneous Localization and Mapping for Aerial Vehicles: a 3-D sensor-based GAS filter, Autonomous Robots, Vol. 40, Issue 5, pp. 881–902, June, 2016

[39] Luís Sousa, R. Alves, João Rodrigues, Augmented reality system to assist inexperienced pool players, Computational Visual Media, Vol 2, Issue 2, pp. 183–193, June, 2016

[40] Pedro Batista, Carlos Silvestre, Paulo Oliveira, Tightly Coupled Long Baseline / Ultra-short Baseline Integrated Navigation System, International Journal of Systems Science, vol. 41, no. 8, pp. 1837-1855, June, 2016 - PDF

[41] D. Yazdani, A. Sepas-Moghaddam, Atabak Dehban, N. Horta, A Novel Approach for Optimization in Dynamic Environments Based on Modified Artificial Fish Swarm Algorithm, International Journal of Computational Intelligence and Applications, Vol. 15, Issue 2, June, 2016

[42] Carlos Santiago, Jacinto Nascimento, Jorge S. Marques, A new ASM framework for left ventricle segmentation exploring slice variability in cardiac MRI volumes, Neural Computing and Applications, pp. 1–12, May, 2016

[43] Nuno Fachada, Vitor Lopes, R. Martins, Agostinho Rosa, PerfAndPubTools – Tools for Software Performance Analysis and Publishing of Results, Journal of Open Research Software, 4(1), p.e18, May, 2016

[44] Andreas J. Häusler, Alessandro Saccon, A. Pedro Aguiar, John Hauser, António M. Pascoal, "Energy-Optimal Motion Planning for Multiple Robotic Vehicles with Collision Avoidance," IEEE Transactions on Control Systems Technology, Vol. 24, No. 3, May 2016, pp. 867-883.

[45] T. Mestre, J. Figueiredo, A. S. Ribeiro, J. Paredes, R. Seruca, João Sanches, Quantification of topological features in cell meshes to explore E-cadherin dysfunction, Scientific reports 6, May, 2016

[46] S. A. Sousa, J. H. Leitão, R. C. Martins, João Sanches, J. S. Suri, A. Giorgetti, Bioinformatics Applications in Life Sciences and Technologies, BioMed Research International, May, 2016

[47] T. P. Tomo, S. Somlor, S. Schmitz, Lorenzo Jamone, W. Huang, H. Kristanto, S. Sugano, Design and Characterization of a Three-Axis Hall Effect-Based Soft Skin Sensor, MDPI Sensors, Vol. 16, No. 4, pp. 491, April, 2016

[48] A. Leal, J. P. Vieira, R. Lopes, R. G. Nunes, S. I. Gonçalves, F. Lopes da Silva, Patrícia Figueiredo, Dynamics of epileptic activity in a peculiar case of childhood absence epilepsy and correlation with thalamic levels of GABA, Epilepsy & Behavior Case Reports 5, pp. 57-65, April, 2016

[49] C. Gomes, Patrícia Figueiredo, A. Mayes, Priming for novel object associations: neural differences from object item priming and equivalent forms of recognition, Hippocampus, Vol. 26, No. 4, pp. 472-91, April, 2016

[50] David Cabecinhas, R. Naldi, Carlos Silvestre, Rita Cunha, L. Marconi, Robust landing and sliding maneuver hybrid controller for a quadrotor vehicle, IEEE Transactions on Control Systems Technology, Vol. 24, No. 2, pp. 400 - 412, March, 2016

[51] Daniel Viegas, Pedro Batista, Paulo Oliveira, Carlos Silvestre, Decentralized state observers for range-based position and velocity estimation in acyclic formations with fixed topologies, International Journal of Robust and Nonlinear Control, Vol. 26, Issue 5, pp. 963–994, March , 2016

[52] Daniel Viegas, Pedro Batista, Paulo Oliveira, Carlos Silvestre, On the stability of the continuous-time Kalman Filter subject to exponentially decaying perturbations, Systems & Control Letters, Elsevier, Vol. 89, pp. 41–46, March, 2016

[53] Pedro Vicente, Lorenzo Jamone, Alexandre Bernardino, Online body schema adaptation based on internal mental simulation and multisensory feedback, Frontiers in Robotics and AI, March, 2016

[54] Nino Cauli, E. Falotico, Alexandre Bernardino, José Santos-Victor, C. Laschi, Correcting for Changes: Expected Perception-Based Control for Reaching a Moving Target, IEEE Robotics and Automation Magazine, Vol. 23, No. 1, pp. 63 - 70, March, 2016

[55] F. Teixeira, J. Quintas, A. Pascoal, AUV Terrain-Aided Navigation using a Doppler Velocity Logger, Annual Reviews in Control, 42, 2016, pp. 166-176.

[56] Tiago Dias, Pedro Miraldo, Nuno Goncalves, A Framework for Augmented Reality using Non-Central Catadioptric Cameras, Journal of Intelligent & Robotic Systems (Epub ahead of print), February, 2016

[57] Paulo Rosa, T. Simao, Carlos Silvestre, J. M. Lemos, Fault-tolerant control of an air heating fan using set-valued observers: An experimental evaluation, International Journal of Adaptive Control and Signal Processing, Vol. 30, Issue 2, pp. 336–358, February, 2016

[58] X. Liu, Z. Li, Pedro Miraldo, K. Zhong, Y. Shi, A Framework to Calibrate the Scanning Electron Microscope under Variational Magnifications, IEEE Photonics Technology Letters, January, 2016

[59] Nuno Fachada, Vitor Lopes, R. C. Martins, Agostinho Rosa, Parallelization strategies for spatial agent-based models, International Journal of Parallel Programming, pp. 1-33, January, 2016

[60] Lorenzo Jamone, Alexandre Bernardino, José Santos-Victor, Benchmarking the grasping capabilities of the iCub hand with the YCB Object and Model Set, IEEE Robotics and Automation Letters, Vol. 1, Issue 1, pp. 288 - 294, January, 2016

[61] Mohammadreza Bayat, Naveena Crasta, António Pedro Aguiar, António Pascoal, Range-Based Underwater Vehicle Localization in the Presence of Unknown Ocean Currents: Theory and Experiments, IEEE Transactions on Control Systems Technology, Vol. 24, No. 1, January, 2016

[62] J. Alves, A. Vourvopoulos, Alexandre Bernardino, S. Bermúdez i Badia, Eye Gaze Correlates of Motor Impairment in VR Observation of Motor Actions, Methods of Information in Medicine, Vol. 55, Issue 1, pp. 79-83, January, 2016

[63] Sabina Zejnilović, D. Mitsche, João Pedro Gomes, B. Sinopoli, Extending the metric dimension to graphs with missing edges, Theoretical Computer Science (Elsevier), Vol. 609, Part 2, pp. 384–394, January, 2016

[64] Martim Brandão, Ricardo Ferreira, K. Hashimoto, A. Takanishi, José Santos-Victor, On stereo confidence measures for global methods: evaluation, new model and integration into occupancy grids, IEEE Transactions on Pattern Analysis and Machine Intelligence, Vol. 38, No. 1, pp. 116-128, January, 2016

[65] Rodolfo Abreu, Marco Leite, Leal A, Patrícia Figueiredo, Objective selection of epilepsy-related independent components from EEG data, Journal of Neuroscience Methods, Vol. 258, pp. 67-78, January. doi: 10.1016/j.jneumeth.2015.10.003. , 2016

[66] David Moreno-Salinas, Antonio Pascoal, and Joaquin Aranda, Optimal Sensor Placement for Acoustic Underwater Target Positioning with Range-Only Measurements, in IEEE Journal of Oceanic Engineering, Vol. 41, No.3, January 2016, pp. 620-643.

[67] F. Teixeira, J. Quintas, P. Maurya, A. Pascoal, "Robust Particle Filter formulations with application to Terrain-Aided Navigation," International Journal of Adaptive Control and Signal Processing, 31 (4), first published in June 2016, pp. 608-651. DOI: 10.1002/acs.2692

[68] F. Teixeira, J. Quintas, A. Pascoal, "AUV Terrain-Aided Navigation using a Doppler Velocity Logger", Annual Reviews in Control, 42, 2016, pp. 166-176. DOI: 10.1016/j.arcontrol.2016.10.002

[69] J. Almeida, C. Silvestre, and A. M. Pascoal, "Event-Triggered Output Synchronization of Heterogeneous Multi-Agent Systems," Int. J. Robust Nonlinear Control, 27, August 2016, pp. 1302-1338. DOI: 10.1002/rnc.3629.

B. International Conferences,

[1] Pedro Batista, Carlos Silvestre, Paulo Oliveira, Relative Attitude Observers for Three-Platform Formations with Inertial Spread Observations, Proc. of CDC 2016 - 55th IEEE Conference on Decision and Control, Las Vegas, Nevada USA, pp. 6266-6271, 2016

[2] J. Cardoso, Pedro Miraldo, H Araujo, An Explicit Solution for the Plucker Correction Problem, Proc. of ICPR 2016 - International Conference on Pattern Recognition, Cancun, Mexico, 2016

[3] J. Cardoso, Pedro Miraldo, H Araujo, Plucker Correction Problem: Analysis and Improvements in Efficiency, Proc. of ICPR 2016 - 23rd International Conference on Pattern Recognition, Cancún, México, 2016

[4] M. Farrajota, João Rodrigues, Hans Du Buf, Using Multi-Stage Features in Fast R-CNN for Pedestrian Detection, Proc. of DSAI 2016 - Software Development and Technologies for Enhancing Accessibility and Fighting Info-exclusion, UTAD, Vila Real, Portugal, 2016

[5] J Pereira, S. Nogin, Pedro Cardoso, João Rodrigues, A Cultural Heritage and Points of Interest Multi-Criteria Router Supported on Visitors Preferences, Proc. of DSAI 2016 - Software Development and Technologies for Enhancing Accessibility and Fighting Info-exclusion, UTAD, Vila Real, Portugal, 2016

[6] C.M.Q. Ramos, João Rodrigues, C. Ramos, Desenvolvimento de um Sistemas de Recomendação para divulgação do património cultural e religioso, Proc. of TMS ALGARVE 2016 – Tourism & Management Studies International Conference, Olhão, Portugal, 1 pp. (Portuguese only), 2016

[7] A. Mantouka, Paulo Felisberto, Paulo Santos, D. Maslov, Friedrich Zabel, M. Saleiro, Sérgio Jesus, Luís Sebastião, Development and Testing of a Dual Accelerometer Vector Sensor for AUV Acoustic Surveys, Proc. of ECSA 2016 - 3rd International Electronic Conference on Sensors and Applications; Sciforum Electronic Conference Series, Vol. 3, 2016

[8] T. P. Tomo, W. K. Wong, A. Schmitz, H. Kristanto, A. Sarazin, Lorenzo Jamone, S. Somlor, S. Sugano, A Modular, Distributed, Soft, 3-Axis Sensor System for Robot Hands, Proc. of Humanoids 2016 - IEEE-RAS International Conference on Humanoid Robots, Cancun, Mexico, 2016

[9] M. Rakovic, B. Borovac, José Santos-Victor, A. Batinica, M. Nikolic, S. Savic, Biped Walking and Stairs Climbing Using Reconfigurable Adaptive Motion Primitives, Proc. of Humanoids 2016 - IEEE-RAS International Conference on Humanoid Robots, Cancun, Mexico, 2016

[10] João Rodrigues, J. Lessa, M. Gregório, C. Ramos, Pedro Cardoso, An Initial Framework for a Museum Application for Senior Citizens, Proc. of DSAI 2016 - Software Development and Technologies for Enhancing Accessibility and Fighting Info-exclusion, UTAD, Vila Real, Portugal, 2016

[11] Zita Marinho, André Martins, S. B. Cohen, N. A. Smith, Semi-Supervised Learning of Sequence Models with the Method of Moments, Proc. of EMNLP 2016 - Conference on Empirical Methods in Natural Language Processing, Austin, Texas, USA, 2016 - PDF

[12] Carlos Santiago, Jacinto Nascimento, Jorge S. Marques, Segmentation of the Left Ventricle in Cardiac MRI using a Robust Active Shape Model Approach, Proc. of RecPad 2016 - 22nd edition of the Portuguese Conference on Pattern Recognition, Aveiro, Portugal, 2016 - PDF

[13] David Moreno-Salinas, N. Crasta, Miguel Ribero, M. Bayat, A. M. Pascoal, and J. A. Aranda, "Integrated motion planning, control, and estimation for range-based marine vehicle positioning and target localization," Proc. 10th IFAC Conference on Control Applications in Marine Systems (CAMS´ 2016), Trondheim, Norway, 2016.

[14] N. Crasta, David Moreno-Salinas, M. Bayat, A. M. Pascoal, and J. A. Aranda, Optimal motion planning for range-based marine vehicle positioning in the presence of unknown currents," Proc. 10th IFAC Conference on Control Applications in Marine Systems (CAMS´ 2016), Trondheim, Norway, 2016.

[15] Pedro Abreu, Hélio Morishita, António Pascoal, Jorge Ribeiro, Henrique Silva, "Marine Vehicles with Streamers for Geotechnical Surveys: Modeling, Positioning, and Control," Proc. 10th IFAC Conference on Control Applications in Marine Systems (CAMS´ 2016), Trondheim, Norway, 2016.

[16] F. Teixeira, Quintas, J., Pascoal, A., "Experimental validation of magnetic navigation of marine robotic vehicles," Proc. 10th IFAC Conference on Control Applications in Marine Systems (CAMS´ 2016), Trondheim, Norway, 2016.

[17] Pedro Abreu, Nikola Miskovic, Dula Nad, Antonio Pascoal, Jorge Ribeiro Miguel Ribeiro, Henrique Silva, "Cooperative Surface/Underwater Navigation for AUV Path following Missions, " Proc. 10th IFAC Conference on Control Applications in Marine Systems (CAMS´ 2016), Trondheim, Norway, 2016.

[18] F. Rego, Y. Pu, A. Alessandretti, A. Pedro Aguiar, A. Pascoal, C. Jones, Design of a Distributed Quantized Luenberger Filter for Bounded Noise", Proc. 2016 American Control Conference (ACC´2016), Boston, MA, USA, 2016

[19] Maziar Izadi, Sasi P. Viswanathan, Amit Sanyal, Carlos Silvestre, and Paulo Oliveira, The Variational Attitude Estimator in the Presence of Bias in Angular Velocity Measurements, Proc. of the American Control Conference (ACC 2016), Boston, MA, USA, 2016

[20] Pedro Casau, Ricardo G. Sanfelice, Carlos Silvestre, Exponential stabilization of a vectored-thrust vehicle using synergistic potential functions, Proc. of the American Control Conference (ACC 2016), Boston, MA, USA, 2016

[21] M. Bayat, N. Crasta , Howard Li, and Auke Ijspeert, "Optimal search strategies for pollutant source localization," IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), Daejeon, Korea, 2016.

[22] Soares, A. Marjovi, J. Giezendanner, A, Kodiyan, A. Aguiar, A. Pascoal, A. Martinoli, "Towards 3D Distributed Odour Source Localization: an Extended Graph-Based Formation Control Algorithm for Plume Tracking," IEEE/RSJ International Conference on Intelligent Robots and Systems (IROSJ), Daejeon, Korea, 2016.

[23] Nikola Miskovic, Antonio Pascoal, Marco Bibuli, Massimo Caccia, Jeffrey A. Neasham, Andreas Birk, Murat Egi, Karl Grammer, Alessandro Marroni, Antonio Vasilijevic, Zoran Vukic, "CADDY Project, Year 2: The First Validation Trials, " Proc. 10th IFAC Conference on Control Applications in Marine Systems (CAMS´ 2016), Trondheim, Norway, 2016.

[24] J. Quintas, Teixeira, F.C., Pascoal, A., "Magnetic Signal Processing Methods with Application to Geophysical Navigation of Marine Robotic Vehicles", Proc. OCEANS 2016 IEEE-MTS Conference, Monterey, CA, USA, 2016.

[25] J. Soares, A. Aguiar, A. Pascoal, A. Martinolli, "An Algorithm for Formation-Based Chemical Plume Tracing using Robotic Marine Vehicles", Proc. OCEANS 2016 IEEE-MTS Conference, Monterey, CA, USA, 2016.

[26] Catarina Barata, M. E. Celebi, Jorge S. Marques, A System for the Analysis of Dermoscopy Images Using Weak Annotations, Proc. of RecPad 2016 - 22nd edition of the Portuguese Conference on Pattern Recognition, Aveiro, Portugal, 2016

[27] Athira Nambiar, Jacinto Nascimento, Alexandre Bernardino, José Santos-Victor, Person Re-identification in Frontal Gait Sequences via Histogram of Optic Flow Energy Image, Proc. of ACIVS 2016 - 17th International Conference on Advanced Concepts for Intelligent Vision Systems, Lecce, Italy, 2016

[28] Qiwei Han, Pedro Ferreira, João Paulo Costeira, The Effect of Product Placement on Shopping Behavior at the Point of Purchase: Evidence from a Randomized Experiment Using Video Tracking in a Physical Bookstore, Conference on Digital Experimentation (CODE), MIT Sloan School of Management, Cambridge MA, October, 2016

[29] José Nogueira, Ruben Martinez-Cantin, Alexandre Bernardino, Lorenzo Jamone, Unscented Bayesian optimization for safe robot grasping, Proc. of IROS 2016 - IEEE/RSJ International Conference on Intelligent Robots and Systems, Daejeon, Korea, 2016

[30] Miguel Farrajota, João Rodrigues, Hans Du Buf, Human Pose Estimation Using Wide Stacked Hourglass Networks, Proc. of RecPad 2016 - 22nd edition of the Portuguese Conference on Pattern Recognition, Aveiro, Portugal, pp. 89, 2016

[31] Miguel Farrajota, João Rodrigues, Hans Du Buf, Pedestrian Detection Using Multi-Stage Features in Fast R-CNN, Proc. of RecPad 2016 - 22nd edition of the Portuguese Conference on Pattern Recognition, Aveiro, Portugal, 2016

[32] Sérgio Jesus, Friedrich Zabel, C. Soares, MSFD D11 in Portugal: status and perspectives, Serenade 2016, ENSTA, Brest, France, 2016

[33] Joao Salvado, Luís Custódio, Daniel Hess, Contingency Planning for Automated Vehicles in Urban Traffic, Proc. of IROS 2016 - IEEE/RSJ International Conference on Intelligent Robots and Systems, Daejeon, Korea, 2016

[34] José Iglésias, Pedro Miraldo, Rodrigo Ventura, Towards an Omnidirectional Catadioptric RGB-D Camera, Proc. of IROS 2016 - IEEE/RSJ International Conference on Intelligent Robots and Systems, Daejeon, Korea, 2016

[35] Alicja Wasik, José N. Pereira, Rodrigo Ventura, Pedro Lima, Alcherio Martinoli, Graph-Based Distributed Control for Adaptive Multi-Robot Patrolling using Local Formation Reconfiguration, Proc. of IROS 2016 - IEEE/RSJ International Conference on Intelligent Robots and Systems, Daejeon, Korea, 2016

[36] Tiago Veiga, Pedro Miraldo, Rodrigo Ventura, Pedro Lima, Efficient Object Search for Mobile Robots in Dynamic Environments: Semantic Map as an Input for the Decision Maker, Proc. of IROS 2016 - IEEE/RSJ International Conference on Intelligent Robots and Systems, Daejeon, Korea, 2016

[37] Pedro Roque, Rodrigo Ventura, Space CoBot: modular design of an holonomic aerial robot for indoor microgravity environments, Proc. of IROS 2016 - IEEE/RSJ International Conference on Intelligent Robots and Systems, Daejeon, Korea, 2016

[38] Susana Brandão, Manuel Marques, Hot Tiles: A heat diffusion based descriptor for automatic tile panel assembly, Proc. of ECCV 2016 - 14th European Conference on Computer Vision, Amsterdam, The Netherlands, pp. 768-782, 2016

[39] Carlos Santiago, Jacinto Nascimento, Jorge S. Marques, A new robust active shape model formulation for cardiac MRI segmentation, Proc. of ICIP 2016 - IEEE International Conference on Image Processing, Phoenix, Arizona, USA, 2016

[40] P. Pina, Jorge S. Marques, Automated prediction of crater degradation degree, Proc. of ICIP 2016 - IEEE International Conference on Image Processing, Phoenix, Arizona, USA, 2016

[41] J. Matos, Alexandre Bernardino, Ricardo Ribeiro, Robust Tracking of Vessels in Oceanographic Airborne Images, Proc. of MTS/IEEE OCEANS, Monterey, California, USA, 2016

[42] Sérgio Jesus, Coherence based array geometry optimization for bottom imaging, Proc. of CoSeRa 2016 - Compressed Sensing Theory and its Applications to Radar, Sonar and Remote Sensing, Aachen, Germany, 2016

[43] Paulo Felisberto, P. Santos, D. Maslov, Sérgio Jesus, Combining pressure and particle velocity sensors for seismic processing, Proc. of MTS/IEEE OCEANS, Monterey, California, USA, 2016

[44] Paulo Felisberto, Orlando Rodriguez, P. Santos, F. Zabel, Sérgio Jesus, Using passive acoustics for monitoring seagrass beds, Proc. of MTS/IEEE OCEANS, Monterey, California, USA, 2016

[45] G. Indiveri, G. Antonelli, F. Arrichiello, A. Caffaz, A. Caiti, G. Casalino, N. Volpi, I. Bielic de Jong, D. de Palma, H. Duarte, João Pedro Gomes, J. Grimsdale, Sérgio Jesus, K. Kebkal, E. Kelholt, António Pascoal, D. Polani, L. Pollini, E. Simetti, A. Turetta, Overview and first year progress of the Widely scalable Mobile Underwater Sonar Technology H2020 project, Proc. of CAMS 2016 - 10th IFAC Conference on Control Applications in Marine Systems, Trondheim, Norway, 2016

[46] T. Dias, H Araujo, Pedro Miraldo, 3D Reconstruction with Low-Resolution, High Radial Distortion Stereo Images, Proc. of ICDSC 2016 - 10th International Conference on Distributed Smart Camera, Paris, France, pp. 98-103, 2016

[47] T. Dias, H Araujo, Pedro Miraldo, 3D Reconstruction with Low Resolution, Small Baseline and High Radial Distortion Stereo Images, Proc. of ICDSC 2016 - 10th International Conference on Distributed Smart Camera, Paris, France, 2016

[48] Beatriz Ferreira, João Pedro Gomes, Cláudia Soares, João Paulo Costeira, Colaborative Localization of Vehicle Formations Based on Bearings and Bearings, Proc. of UComms 2016 - IEEE 3rd Underwater Communications and Networking Conference, Lerici, Italy, 2016

[49] Mehmet Mutlu, S. Bonardi, M. Vespignani, S. Hauser, Alexandre Bernardino, A. Ijspeert, Natural user interface for lighting control: case study on desktop lighting using modular robots, Proc. of Ro-Man 2016 - IEEE International Symposium on Robot and Human Interactive Communication, New York City, USA, 2016

[50] Pedro Góis, N. Sreekantaswamy, N. Basavaraju, Manuel Rufino, Luís Sebastião, João Botelho, João Pedro Gomes, António Pascoal, Development and validation of Blue Ray, an optical modem for the MEDUSA class AUVs, Proc. of UCOMMS 2016 - 3rd Underwater Communications and Networking Conference, Lerici, Italy, 2016

[51] Z. Talebpour, D. G. Viswanathan, Rodrigo Ventura, G. Englebienne, A. Martinoli, Incorporating perception uncertainty in human-aware navigation: A comparative study, Proc. of RO-MAN 2016 - 25th IEEE International Symposium on Robot and Human Interactive Communication, New Yoork, USA, 2016

[52] João Avelino, Rui Figueiredo, Plinio Moreno, Alexandre Bernardino, On the perceptual advantages of visual suppression mechanisms for dynamic robot systems, Proc. of BICA 2016 - 7th International Conference on Biologically Inspired Cognitive Architectures, New York City, USA; Procedia Computer Science, Vol. 88, pp. 1–7, Elsevier, 2016

[53] Nuno Barroso Monteiro, J. P. Barreto, José Gaspar, Dense Lightfeld Disparity Estimation using Total Variation Regularization, Proc. of ICIAR 2016 - International Conference on Image Analysis and Recognition, Póvoa de Varzim, Portugal, 2016

[54] Pedro Roque, Rodrigo Ventura, A Space CoBot for personal assistance in space stations, IJCAI-2016 Workshop on Autonomous Mobile Service Robots, New York City, NY, USA, 2016

[55] Rodrigo Ventura, Meysam Basiri, André Mateus, J. Garcia, Pedro Miraldo, P. Santos, Pedro Lima, A Domestic Assistive Robot Developed Through Robotic Competitions, IJCAI 2016 Workshop on Autonomous Mobile Service Robots, New York, USA, 2016

[56] Nelson Perdigão, J. Heinrich, C. Stolte, K. Sabir, M. Buckley, B. Tabor, B. Signal, B. S. Gloss, C. J. Hammang, B. Rost, A. Schafferhans, S. O Donoghue, Unexpected Features of the 'Dark' Proteome of structural biology, Proc. of 3Dsig 2016 - Structural Bioinformatics and Computational Biophysics, Orlando, Florida, USA, pp. 54-55, 2016

[57] Jayakorn Vongkulbhisal, Ricardo Cabral, F. De la Torre, João Paulo Costeira, Motion from Structure (MfS): Searching for 3D Objects in Cluttered Point Trajectories, Proc. of CVPR 2016 - 29th IEEE Conference on Computer Vision and Pattern Recognition, Las Vegas, USA, 2016

[58] Jayakorn Vongkulbhisal, Ricardo Cabral, F. De la Torre, João Paulo Costeira, Motion from Structure (MfS): Searching for 3D Objects in Cluttered Point Trajectories, Proc. CVPR 2016 - IEEE Conference on Computer Vision and Pattern Recognition, Las Vegas, NV, USA, 2016

[59] Pedro Vieira, João Paulo Costeira, Susana Brandão, Manuel Marques, SMARTcycling: Assessing cyclists' driving experience, Proc. of IV 2016 - IEEE Intelligent Vehicles Symposium, Gothenburg, Sweden, 2016

[60] Zita Marinho, B. Boots, A. Dragan, A. Byravan, G. Gordon, S. Srinivasa, Functional Gradient Motion Planning in Reproducing Kernel Hilbert Spaces, Proc. of RSS 2016 - Robotics: Science and Systems, Ann Arbor, Michigan, USA, 2016

[61] Duarte Dias, Rodrigo Ventura, Pedro Lima, A. Martinoli, On-Board Vision-Based 3D Relative Localization System for Multiple Quadrotors, Proc. of ICRA 2016 - IEEE International Conference on Robotics and Automation, Stockholm, Sweden, 2016

[62] Alexandre Antunes, Lorenzo Jamone, Giovanni Saponaro, Alexandre Bernardino, Rodrigo Ventura, From Human Instructions to Robot Actions: Formulation of Goals, Affordances and Probabilistic Planning, Proc. of ICRA 2016 - IEEE International Conference on Robotics and Automation, Stockholm, Sweden, 2016

[63] Atabak Dehban, Lorenzo Jamone, A. Kampff, José Santos-Victor, Denoising Auto-encoders for Learning of Objects and Tools Affordances in Continuous Space, Proc. of ICRA 2016 - IEEE International Conference on Robotics and Automation, Stockholm, Sweden, 2016

[64] Duarte Dias, Pedro Lima, A. Martinoli, Distributed Formation Control of Quadrotors under Limited Sensor Field of View, Proc. of AAMAS 2016 - 15th International Conference on Autonomous Agents and Multiagent Systems, Singapore, 2016

[65] Rodolfo Abreu, Sandro Nunes, A. Leal, Patrícia Figueiredo, ECG-derived respiratory signal for physiological noise correction in simultaneous EEG-fMRI for enhanced mapping of epileptic activity, Proc. of ISMRM 2016 24th Annual Meeting, Singapore, 2016

[66] Joana Pinto, P. Vilela, M. Chappell, Patrícia Figueiredo, Impact of calibration method on the reproducibility of CBF mapping using multiple post-labeling-delay PASL, Proc. of ISMRM 2016 24th Annual Meeting, Singapore, 2016

[67] Pedro Lima, André Farinha, A Novel Underactuated Hand Suitable for Human--Oriented Domestic Environments, Proc. of ICARSC 2016 - IEEE International Conference on Autonomous Robot Systems and Competitions, Bragança, Portugal, 2016

[68] Sandro Nunes, M. Bianciardi, Afonso Dias, L. M. Silveira, L. L. Wald, Patrícia Figueiredo, Physiological noise model comparison for resting-state fMRI at 7 T, Proc. of ISBI 2016 - IEEE International Symposium on Biomedical Imaging, Prague, Czech Republic, 2016

[69] Pedro Abreu, João Botelho, Pedro Góis, António Pascoal, Jorge Ribeiro, Miguel Ribeiro, Manuel Rufino, Luís Sebastião, Henrique Silva, The MEDUSA class of autonomous marine vehicles and their role in EU projects, Proc. of MTS/IEEE OCEANS'16, Shanghai, China, 2016

[70] G. Antonelli, A. Caffaz, G. Casalino, N. Volpi, I. B. Jong, D. Palmad, H. Duarte, J. Grimsdale, G. Indiveri, Sérgio Jesus, K. Kebkal, António Pascoal, D. Polani, L. Pollini, The Widely scalable Mobile Underwater Sonar Technology (WiMUST) H2020 project: first year status, Proc. of MTS/IEEE OCEANS'16, Shanghai, China, 2016

[71] João Carvalho, Manuel Marques, João Paulo Costeira, P. M. Jorge, Detecting People in Large Crowded Spaces using 3D Data from Multiple Cameras, Proc. of VISIGRAPP 2016 - 11th Joint Conference on Computer Vision, Imaging and Computer Graphics Theory and Applications - Volume 4: VISAPP, 218-225, Rome, Italy, 2016 - PDF

[72] Athira Nambiar, Alexandre Bernardino, Jacinto Nascimento, Person Re-identification based on Human query on Soft Biometrics using SVM Regression, Proc. of VISAPP 2016 - 11th International Conference on Computer Vision Theory and Applications, Rome, Italy, 2016

[73] Paulo Felisberto, A.B. Santos, Sérgio Jesus, Acoustic channel frequency response estimation using sources of opportunity, Proc. of COA 2016 - IEEE/OES China Oceans Acoustics Symposium, Harbin, China, 2016

[74] Y. Wu, A.B. Santos, Paulo Felisberto, Sérgio Jesus, Close range ship noise cross correlations with a vector sensor in view of geoacoustic inversion, Proc. of COA 2016 - IEEE/OES China Oceans Acoustics Symposium, Harbin, China, 2016

[75] Sérgio Jesus, Distributed sensor array for bottom inversion, Proc. of COA 2016 - IEEE/OES China Oceans Acoustics Symposium, Harbin, China, 2016

[76] David Moreno-Salinas, N. Crasta, Miguel Ribero, M. Bayat, A. M. Pascoal, and J. A. Aranda, "Integrated motion planning, control, and estimation for range-based marine vehicle positioning and target localization," Proc. 10th IFAC Conference on Control Applications in Marine Systems (CAMS´ 2016), Trondheim, Norway, September 2016.

[77] N. Crasta, David Moreno-Salinas, M. Bayat, A. M. Pascoal, and J. A. Aranda, Optimal motion planning for range-based marine vehicle positioning in the presence of unknown currents," Proc. 10th IFAC Conference on Control Applications in Marine Systems (CAMS´ 2016), Trondheim, Norway, September 2016.

[78] Pedro Abreu, Hélio Morishita, António Pascoal, Jorge Ribeiro, Henrique Silva, "Marine Vehicles with Streamers for Geotechnical Surveys: Modeling, Positioning, and Control," Proc. 10th IFAC Conference on Control Applications in Marine Systems (CAMS´ 2016), Trondheim, Norway, September 2016.

[79] F. Teixeira, Quintas, J., Pascoal, A., "Experimental validation of magnetic navigation of marine robotic vehicles," Proc. 10th IFAC Conference on Control Applications in Marine Systems (CAMS´ 2016), Trondheim, Norway, September 2016.

[80] Pedro Abreu, Nikola Miskovic, Dula Nad, Antonio Pascoal, Jorge Ribeiro Miguel Ribeiro, Henrique Silva, "Cooperative Surface/Underwater Navigation for AUV Path following Missions, " Proc. 10th IFAC Conference on Control Applications in Marine Systems (CAMS´ 2016), Trondheim, Norway, September 2016.

[81] Nikola Miskovic, Antonio Pascoal, Marco Bibuli, Massimo Caccia, Jeffrey A. Neasham, Andreas Birk, Murat Egi, Karl Grammer, Alessandro Marroni, Antonio Vasilijevic, Zoran Vukic, "CADDY Project, Year 2: The First Validation Trials," Proc. 10th IFAC Conference on Control Applications in Marine Systems (CAMS´ 2016), Trondheim, Norway, September 2016.

[82] Giovanni Indiveri, Gianluca Antonelli, Filippo Arrichiello, Andrea Cafaz, Andrea Caiti, Giuseppe Casalino, Nicola Catenacci Volpi, Ivan Bielic de Jong, Daniela De Palma, Henrique Duarte, Joao Pedro Gomes, Jonathan Grimsdale, Sergio Jesus, Konstantin Kebkal, Elbert Kelholt, Antonio Pascoal, Daniel Polani, Lorenzo Pollini, Enrico Simetti, and Alessio Turetta, "Overview and first year progress of the Widely Scalable Mobile Underwater Sonar Technology H2020 project, " Proc. 10th IFAC Conference on Control Applications in Marine Systems (CAMS´ 2016), Trondheim, Norway, September 2016.

[83] J. Quintas, Teixeira, F.C., Pascoal, A., "Magnetic Signal Processing Methods with Application to Geophysical Navigation of Marine Robotic Vehicles", Proc. OCEANS 2016 IEEE-MTS Conference, Monterey, CA, USA, September 2016.

[84] J. Soares, A. Aguiar, A. Pascoal, A. Martinolli, "An Algorithm for Formation-Based Chemical Plume Tracing using Robotic Marine Vehicles", Proc. OCEANS 2016 IEEE-MTS Conference, Monterey, CA, USA, September 2016.

[85] Pedro Gois, Nichin Sreekantaswamy, Nandeesh Basavaraju, Manuel Rufino Luis Sebastião, João Botelho, João Gomes, António Pascoal, "Development and Validation of Blue Ray, an Optical Modem for the MEDUSA class AUVs," Proc. UComms, 30 August - 1 September 2016.

[86] F. Rego, Y. Pu, A. Alessandretti, A. Pedro Aguiar, A. Pascoal, C. Jones, Design of a Distributed Quantized Luenberger Filter for Bounded Noise", Proc. 2016 American Control Conference (ACC´2016), July 6–8, Boston, MA, USA.

[87] M. Bayat, N. Crasta , Howard Li, and Auke Ijspeert, "Optimal search strategies for pollutant source localization," IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), Daejeon, Korea, October 9-14, 2016.

[88] J. Soares, A. Marjovi, J. Giezendanner, A, Kodiyan, A. Aguiar, A. Pascoal, A. Martinoli, "Towards 3D Distributed Odour Source Localization: an Extended Graph-Based Formation Control Algorithm for Plume Tracking," Jorge M. Soares, Ali Marjovi, Jonathan Giezendanner, Anil Kodiyan, A. Pedro Aguiar, António M. Pascoal, Alcherio Martinoli, "Towards 3-D Distributed Odor Source Localization: An Extended Graph-Based Formation Control Algorithm for Plume Tracking," IEEE/RSJ International Conference on Intelligent Robots and Systems (IROSJ), Daejeon, Korea, October 9-14, 2016.

[89] P. Abreu, J. Botelho, P. Góis, A. Pascoal, J. Ribeiro, M. Ribeiro, M. Rufino, L. Sebastião, H. Silva, "The MEDUSA class of autonomous marine vehicles and their role in EU projects," Proc. OCEANS'16, Shanghai, April 10-13, 2016.

[90] Gianluca Antonelli, Andrea Cafaz, Giuseppe Casalino, Ivan Bielic de Jong, Daniela De Palma, Henrique Duarte, Jonathan Grimsdale, Giovanni Indiveri, Sergio Jesus, Konstantin Kebkal, Antonio Pascoal, Daniel Polani, Lorenzo Pollini, "The Widely Scalable Mobile Underwater Sonar Technology (WiMUST) H2020 Project: First Year Status, "Proc. OCEANS'16, Shanghai, April 10-13, 2016.

[91] Maziar Izadi, Sasi P. Viswanathan, Amit Sanyal, Carlos Silvestre, and Paulo Oliveira, The Variational Attitude Estimator in the Presence of Bias in Angular Velocity Measurements, Proc. of the American Control Conference (ACC 2016), Boston, MA, USA, July 6–8, 2016

[92] Pedro Casau, Ricardo G. Sanfelice, Carlos Silvestre, Exponential stabilization of a vectored-thrust vehicle using synergistic potential functions, Proc. of the American Control Conference (ACC 2016), Boston, MA, USA, July 6–8, 2016

C. Books,

[1] João Rodrigues, P. Cardoso, J. Monteiro, M. Figueiredo, Handbook of Research on Human-Computer Interfaces, Developments, and Applications, (Eds.), IGI Global, 644 pages, 2016

D. Book Chapters,

[1] Luís Sousa, Mauro Figueiredo, Jânio Monteiro, José Bidarra, João Rodrigues, Pedro Cardoso, Developments of Serious Games in Education, Handbook of Research on Human-Computer Interfaces, Developments, and Applications, J. Rodrigues, P. Cardoso, J. Monteiro, M. Figueiredo (Eds.), pp. 392-419, IGI-Global, 2016

[2] João Rodrigues, Ricardo Alves, Luís Sousa, A. Negrier, P. Cardoso, Jânio Monteiro, Paulo Felisberto, Mauro Figueiredo, B. Silva, Roberto Lam, M. Gomes, P. Bica, Jaime Martins, PRHOLO − 360º Interactive Public Relations, Handbook of Research on Human-Computer Interfaces, Developments, and Applications, J. Rodrigues, P. Cardoso, J. Monteiro, M. Figueiredo (Eds.), pp. 166-191, IGI-Global, 2016

[3] Jacinto Nascimento, Gustavo Carneiro, A. Freitas, Tracking and segmentation of the endocardium of the Left Ventricle in 2D Ultrasound using Deep Learning architectures and Monte Carlo sampling, in Biomedical Image Segmentation: Advances and Trends, A. El-Baz, X. Jiang, J. S. Suri (Eds.), Chapter 17, pp. 387-406, CRC Press, 2016

[4] Carlos Santiago, Jacinto Nascimento, Jorge S. Marques, A 3D Active Shape Model for Left Ventricle Segmentation in MRI, in Biomedical Image Segmentation: Advances and Trends, A. El-Baz, X. Jiang, J. S. Suri (Eds.), Chapter 4, pp. 99-115, CRC Press, 2016

[5] Luís Sousa, João Rodrigues, Jânio Monteiro, Pedro Cardoso, Roberto Lam, GyGSLA: A Portable Glove System for Learning Sign Language Alphabet, Universal Access in Human-Computer Interaction. Users and Context Diversity, Vol. 9739 of the series Lecture Notes in Computer Science, pp. 159-170, June , 2016

[6] Sofija Spasojevic, Rodrigo Ventura, José Santos-Victor, V. Potkonjak, A. Rodić, Automatic Segmentation of Therapeutic Exercises Motion Data with a Predictive Event Approach, In New Trends in Medical and Service Robots, Vol. 38 of the series Mechanisms and Machine Science, pp. 217-225. Springer International Publishing, 2016

[7] Pedro Cardoso, Gabriela Schutz, Jorge Semião, Jânio Monteiro, João Rodrigues, Andriy Mazayev, Emanuel Ey, Integration of a Real-Time Stochastic Routing Optimization Software with an Enterprise Resource Planner, Geographical Information Systems Theory, Applications and Management, Vol. 582 of the series Communications in Computer and Information Science, pp. 124-141, 2016

[8] João Messias, Rodrigo Ventura, Pedro Lima, João Sequeira, ROS in the MOnarCH Project: A Case Study in Networked Robot Systems, Springer Book on Robot Operating System (ROS) – The Complete Reference (Vol. 1), Anis Koubaa (Editor), 2016

E. PhD Theses

[1] Mário Saleiro, Active vision in robot cognition, Ph.D. Thesis, University of Algarve, Portugal, December, 2016

[2] Pedro Fazenda, Context-Based Thermodynamic Modeling and Optimal Management of Energy and Occupant Comfort for Building Spaces, Ph.D. Thesis, Instituto Superior Técnico, Universidade de Lisboa, November , 2016

[3] Alexandre Tuleu, Hardware, software and control design considerations towards low-cost compliant quadruped robots, Ph.D. Thesis, within the IST-EPFL Joint Doctoral Initiative, November, 2016

[4] Pedro Casau, Synergistic Hybrid Feedback Control with Application to Autonomous Air Vehicles, Ph.D. Thesis, Instituto Superior Tecnico, Universidade de Lisboa, November, 2016

[5] Nuno Fachada, Agent-Based Modeling on High Performance Computing Architectures, Ph.D. Thesis, Instituto Superior Tecnico, Universidade de Lisboa, September, 2016

[6] Marco Leite, Modelling Human Epileptic Brain Networks, Ph.D. Thesis, University College London, September, 2016

[7] Dario Figueira, Automatic Person ReIdentification for Video Surveillance Applications, Ph.D. Thesis, Instituto Superior Tecnico, Universidade de Lisboa, June, 2016

[8] Teresa Murta, Investigation of the neurophysiological correlates of fMRI using simultaneous intracranial and scalp EEG, Ph.D. Thesis, University College London, June, 2016

[9] Cláudia Soares, Distributed and robust network localization algorithms, Ph.D. Thesis, Instituto Superior Tecnico, Universidade de Lisboa, May, 2016

[10] Sabina Zejnilović, Localizing a diffusion source on graphs: analysis and design of node selection strategies, Ph.D. Thesis, Instituto Superior Tecnico, Universidade de Lisboa, April, 2016 - PDF

[11] Jorge Soares, Formation-Based Odour Source Localisation Using Distributed Terrestrial and Marine Robotic Systems, Ph.D. Thesis, within the IST-EPFL Joint Doctoral Initiative, April, 2016

[12] Ravin Souza, Grasping for the Task – Human Principles for Robot Hands, Ph.D. Thesis, within the IST-EPFL Joint Doctoral Initiative, March, 2016

[13] Andrea Alessandretti, Continuous-time Model Predictive Control for Economic Optimization: Theory, Design, and Applications to Motion Control of Underactuated Vehicles, Ph.D. Thesis, Instituto Superior Técnico, Universidade de Lisboa, March, 2016

[14] Pedro Serra, Image-Based Visual Servo Control of Aerial Vehicles, Ph.D. Thesis, Instituto Superior Técnico, Universidade de Lisboa, February, 2016

[15] Joao Jorge, Simultaneous EEG-fMRI at ultrahigh field for the study of human brain function, Ph.D. Thesis, within the IST-EPFL Joint Doctoral Initiative, February, 2016