Curriculum Vitae

RICARDO FILIPE ALVES MARTINS

My name is Ricardo Martins and I am a PhD in Electrical and Computer Engineering, specialized in automation and robotics, with a background in Biomedical Engineering (MSc). Over the past years, my research activities at University of Coimbra (UC), Institute of Systems and Robotics (ISR), Coimbra Institute for Biomedical Imaging and Translational Research (CIBIT) and Institute of Nuclear Sciences Applied to Health (ICNAS), have been focused on two distinct lines of research and innovation - artificial perception in robotics; neuroimaging in cognitive neuroscience - with a common intersection: statistics and probability; multivariate signal processing; computational modelling.

Identification

Personal identification

Full name
RICARDO FILIPE ALVES MARTINS

Citation names

MARTINS, RICARDO

Author identifiers

Ciência ID
7F17-8F87-7BB8

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ricardo.martins@uc.pt (Professional)

Addresses

ICNAS - Instituto de Ciências Nucleares Aplicadas à Saúde, Azinhaga de Santa Comba, 3000-548 Coimbra, Coimbra, Portugal (Professional)

Websites

https://rmartins.net/ (Professional)
https://github.com/rmartins-net (Professional)

Knowledge fields

Engineering and Technology - Medical Engineering - Medical Engineering
Engineering and Technology - Electrotechnical Engineering, Electronics and Informatics - Robotics and
Exact Sciences - Mathematics - Statistics and Probability
Exact Sciences - Computer and Information Sciences - Information Science
Medical and Health Sciences - Clinical Medicine - Radiology, Nuclear Medicine and Medical Imaging
Medical and Health Sciences - Basic Medicine - Neurosciences
Natural sciences - Biological Sciences - Biophysics

Languages

Language	Speaking	Reading	Writing	Listening	Peer-review
English	Advanced (C1)	Advanced (C1)	Advanced (C1)	Advanced (C1)	Advanced (C1)
French	Elementary (A2)	Elementary (A2)	Beginner (A1)	Elementary (A2)	Beginner (A1)
Portuguese (Mother tongue)					

Education

	Degree	Classification
2019/10/07 - 2019/10/09 Concluded	KCL PET Methodology Course (Outros) King's College London, United Kingdom Institute of Psychiatry Psychology and Neuroscience Department of Basic and Clinical Neuroscience, United Kingdom	Advanced training certification
2019/07/11 - 2019/07/18 Concluded	IST Lisbon Machine Learning School (Outros) Universidade de Lisboa Instituto Superior Técnico, Portugal Instituto de Engenharia de Sistemas e Computadores Investigação e Desenvolvimento em Lisboa, Portugal	Advanced training certification
2018/09/10 - 2018/09/14 Concluded	ETHZ/UZH Computational Psychiatry Course 2018 (Outros) Departement Informationstechnologie und Elektrotechnik, Switzerland Universität Zürich Institut für Informatik, Switzerland	Advanced training certification
2009/10/01 - 2017/02/27 Concluded	Engenharia Eletrotécnica e de Computadores (Doutoramento) Major in Automation and Robotics Universidade de Coimbra, Portugal *"Development of techniques for haptic object exploration: a contribution forautonomous robotic*	Approved with praise and distinction

	hands" (THESIS/DISSERTATION)	
2016/06/06 - 2016/06/08 Concluded	FieldTrip: a MATLAB toolbox for MEG - EEG analysis (Outros) Radboud Universiteit Donders Institute for Brain Cognition and Behaviour, Netherlands	Advanced training certification
2016/01/01 - 2016/03/31 Concluded	Biostatistics and design of clinical trials (Outros) Universidade de Coimbra, Portugal	Advanced training certification
2010/10/01 - 2011/07/31 Concluded	Advanced studies in Electrical and Computer Engineering (Outros) Universidade de Coimbra, Portugal	Excellent (18 out of 20)
2010/09/27 - 2010/10/01 Concluded	Summer School on Robotic Grasping (Outros) Universitat Jaume I Escola Superior de Tecnologia i Ciències Experimentals, Spain	Advanced training certification
2002/10/01 - 2008/09/18 Concluded	Engenharia Biomédica (Mestrado integrado) Major in Instrumentação Biomédica Universidade de Coimbra, Portugal *"BW-Eye: Ophthalmologic decision support system based on clinical workflow and data mining techniques" (THESIS/DISSERTATION)*	Very good with distinction (18 out of 20)

Affiliation

Science

2019/10/01 - Current	Postdoc (Research) CIBIT-UC: Coimbra Institute for Biomedical Imaging and Translational Research, University of Coimbra, Portugal
2017/05/01 - Current	Postdoc (Research) Universidade de Coimbra Instituto de Ciências Nucleares Aplicadas à Saúde, Portugal
2017/05/01 - 2019/09/30	Postdoc (Research) CNC.IBILI, Portugal
2014/01/01 - 2017/04/30	Researcher (Research) CNC.IBILI, Portugal

2014/01/01 - 2017/04/30	Researcher (Research) Universidade de Coimbra Instituto de Ciências Nucleares Aplicadas à Saúde, Portugal
2008/10/01 - 2017/02/28	Researcher (Research) Universidade de Coimbra Instituto de Sistemas e Robótica, Portugal

Projects

Grant

	Designation	Funders
2019/06/01 - Current	AIMS-2-TRIALS: Autism Innovative Medicine Studies – 2 – Trials 777394 Pos-doc (no fellowship) CIBIT-UC: Coimbra Institute for Biomedical Imaging and Translational Research, University of Coimbra, Portugal Universidade de Coimbra Instituto de Ciências Nucleares Aplicadas à Saúde, Portugal	
2018/07/26 - 2021/07/25	Brain Elasticity in Multiple Sclerosis and implications in mechanomodulation of oligodendrocytes: a cellular and clinical approach PTDC/MED-NEU/29516/2017 Pos-doc (no fellowship) CNC.IBILI, Portugal Universidade de Coimbra Instituto de Ciências Nucleares Aplicadas à Saúde, Portugal	Fundação para a Ciência e a Tecnologia, Portugal
2018/07/26 - 2021/07/25	AFFECTIVE: Affective disorders- biomarkers and early detection PTDC/MEC-PSQ/30943/2017 Pos-doc (no fellowship) CNC.IBILI, Portugal Universidade de Coimbra Instituto de Ciências Nucleares Aplicadas à Saúde, Portugal	Fundação para a Ciência e a Tecnologia, Portugal
2018/06/22 - 2021/06/21	BioMuScle: Novel multimodal imaging biomarkers of neuronal connectivity in Multiple Sclerosis CENTRO-01-0145-FEDER-031973 Pos-doc (no fellowship) Universidade de Coimbra Instituto de Ciências Nucleares Aplicadas à Saúde, Portugal	Fundação para a Ciência e a Tecnologia, Portugal

2017/05/01 - 2020/01/31	MEDPERSYST: Synaptic networks and Personalized Medicine Approaches to Understand Neurobehavioural Diseases Across the Lifespan SAICTPAC/0010/2015 Pos-doctoral Fellow Universidade de Coimbra Instituto de Ciências Nucleares Aplicadas à Saúde, Portugal CNC.IBILI, Portugal	Fundação para a Ciência e a Tecnologia, Portugal
2017/11/01 - 2019/10/31	The role of motion adaptation in bottom-up mechanisms of perceptual decision-making PT/FB/BL-2016-207 Pos-doc (no fellowship) Universidade de Coimbra Instituto de Ciências Nucleares Aplicadas à Saúde, Portugal	Bial, Portugal
2016/02/01 - 2017/10/31	Multimodal mapping of visual motion perceptual decision: Dissecting the role of different motion integration areas in visual surface reconstruction PT/FB/BL-2014-373 Pos-doc (no fellowship) Universidade de Coimbra Instituto de Ciências Nucleares Aplicadas à Saúde, Portugal CNC.IBILI, Portugal Universidade de Coimbra, Portugal	Bial, Portugal
2015/07/01 - 2017/04/30	Trabalho multidisciplinar no âmbito da ressonância funcional e tomografia de emissão de positrões UID/NEU/04539/2013 Researcher Universidade de Coimbra Instituto de Ciências Nucleares Aplicadas à Saúde, Portugal	Fundação para a Ciência e a Tecnologia, Portugal
2014/01/01 - 2015/06/30	From molecules to man: novel diagnostic imaging tools in neurological and psychiatric disorders CENTRO-07-ST24-FEDER-02005 Researcher Universidade de Coimbra Instituto de Ciências Nucleares Aplicadas à Saúde, Portugal	Fundação para a Ciência e a Tecnologia, Portugal
2010/01/01 - 2013/12/31	Development of techniques for haptic object exploration: a contribution forautonomous robotic hands SFRH/BD/65990/2009 PhD Student Fellow Universidade de Coimbra Instituto de Sistemas e Robótica, Portugal	Fundação para a Ciência e a Tecnologia, Portugal Universidade de Coimbra, Portugal

2008/08/01 - 2013/01/31	HANDLE - Developmental pathway towards autonomy and dexterity in robot in-hand manipulation 231640 Researcher Universidade de Coimbra, Portugal Universidade de Coimbra Instituto de Sistemas e Robótica, Portugal	European Commission Seventh Framework Programme for Research and Technological Development Information and Communication Technologies, Belgium
2008/10/01 - 2009/07/31	PROMETHEUS - Prediction and interpretation of human behaviour based on probabilistic structures and heterogeneous sensors 214901 Researcher Universidade de Coimbra, Portugal Universidade de Coimbra Instituto de Sistemas e Robótica, Portugal	European Commission Seventh Framework Programme for Research and Technological Development Information and Communication Technologies, Belgium
2008/01/01 - 2008/06/30	EPILEPSIAE - Evolving Platform for Improving the Living Expectations of Patients Suffering from IctAl Events 211713 Master Student Fellow Universidade de Coimbra Centro de Informatica e Sistemas, Portugal Universidade de Coimbra, Portugal	European Commission Seventh Framework Programme for Research and Technological Development Information and Communication Technologies, Belgium

Outputs

Publications

Book chapter

1 Faria, Diego R.; Martins, Ricardo; Lobo, Jorge; Dias, Jorge. 2011. "Manipulative Tasks Identification by Learning and Generalizing Hand Motions". In *IFIP Advances in Information and Communication Technology*, 173-180. Springer Berlin Heidelberg. http://dx.doi.org/10.1007/978-3-642-19170-1_19.

Published • 10.1007/978-3-642-19170-1_19

2 Faria, Diego R.; Martins, Ricardo; Dias, Jorge. 2010. "Grasp Exploration for 3D Object Shape Representation Using Probabilistic Map". In *IFIP Advances in Information and Communication Technology*, 215-222. Springer Berlin Heidelberg. http://dx.doi.org/10.1007/978-3-642-11628-5_23.

Published • 10.1007/978-3-642-11628-5_23

3 Dourado, António; Martins, Ricardo; Duarte, João; Direito, Bruno. 2008. "Towards Personalized Neural Networks for Epileptic Seizure Prediction". In *Artificial Neural Networks - ICANN 2008*, 479-487. Springer Berlin Heidelberg. http://dx.doi.org/10.1007/978-3-540-87559-8_50.

Published • 10.1007/978-3-540-87559-8_50

Conference paper

1 Martins, Ricardo; Filipe Ferreira, Joao; Dias, Jorge. 2014. "Touch attention Bayesian models for robotic active haptic exploration of heterogeneous surfaces". In *2014 IEEE/RSJ International Conference on Intelligent Robots and Systems*: *IROS 2014 - 2014 IEEE/RSJ International Conference on Intelligent Robots and Systems*, *Taipei, Taiwan*. IEEE.

Published • 10.1109/iros.2014.6942711

2 Martins, Ricardo; Ferreira, João Filipe; Dias, Jorge. 2013. "Touch attention Bayesian models for robotic active haptic exploration". In *REACTS 2013 - Workshop on Recognition and Action for Scene Understanding - International Conference of Computer Analysis of Images and Patterns*: *REACTS 2013 - Workshop on Recognition and Action for Scene Understanding - International Conference of Computer Analysis of Images and Patterns*, *York, United Kingdom*.

Published

3 Martins, Ricardo; Faria, Diego R.; Dias, Jorge. 2012. "Representation framework of perceived object softness characteristics for active robotic hand exploration". In *7th ACM/IEEE International Conference on Human Robot Interaction (HRI2012) - Workshop on Advances in Tactile Sensing and Touch based Human-Robot Interaction*: *HRI 2012 - ACM/IEEE International Conference on Human-Robot Interaction*, *Boston, United States*. IEEE.

Published

4 Faria, Diego R; Martins, Ricardo; Lobo, Jorge; Dias, Jorge. 2010. "Probabilistic representation of 3D object shape by in-hand exploration". In *2010 IEEE/RSJ International Conference on Intelligent Robots and Systems*: *IROS 2010 - 2010 IEEE/RSJ International Conference on Intelligent Robots and Systems*, *Taipei, Taiwan*, 1560-1565. IEEE.

Published • 10.1109/iros.2010.5649286

5 Martins, Ricardo; Faria, Diego R.; Dias, Jorge. 2010. "Symbolic Level Generalization of In-hand Manipulation Tasks from Human Demonstrations using Tactile Data Information". In *IROS 2010 - 2010 IEEE/RSJ International Conference on Intelligent Robots and Systems - Workshop on Grasping Planning and Task Learning by Imitation*: *IROS 2010 - 2010 IEEE/RSJ International Conference on Intelligent Robots and Systems*. Taipei, Taiwan: IEEE.

Published

6 Faria, Diego R.; Martins, Ricardo; Dias, Jorge. 2010. "Learning Motion Patterns from Multiple Observations along the Actions Phases of Manipulative Tasks". In *IROS 2010 - 2010 IEEE/RSJ International Conference on Intelligent Robots and Systems - Workshop on Grasping Planning and Task Learning by Imitation*: *IROS 2010 - 2010 IEEE/RSJ International Conference on Intelligent Robots and Systems*, *Taipei, Taiwan*. IEEE.

Published

7 Faria, Diego R.; Martins, Ricardo; Dias, Jorge. 2009. "Human reach-to-grasp generalization strategies: a Bayesian approach". In *RSS 2009 - Robotics: Science and Systems - Understanding the Human Hand for Advancing Robotic Manipulation workshop*: *RSS 2009 - Robotics: Science and Systems*, *Seattle, United States*. United States: RSS.

Published

Conference poster

1 Costa, Gabriel N.; Schaum, Michael; MARTINS, RICARDO; Duarte, João V.; Castelhano, João; Wibral, Michael; Castelo-Branco, Miguel. 2019. "Distinct roles of beta and gamma oscillations during integration of ambiguous motion". Paper presented in *FRM 2019 - Federation of European Neuroscience Societies Regional meeting*.

2 Campos, Alexandre S.; Sousa, Teresa; Duarte, João V.; Costa, Gabriel N.; Martins, Ricardo; Castelo-Branco, Miguel. 2018. "Unraveling the neural correlates of perceptual hysteresis: the effects of perceptual history on the visual perception of an ambiguous stimulus". Paper presented in *SAMBA 2018 - Salzburg Mind-Brain Annual Meeting*.

3 Sousa, Teresa; Campos, Alexandre S.; Duarte, João V.; Martins, Ricardo; Castelo-Branco, Miguel. 2018. "Evidence for distinct levels of neural adaptation to both coherent and incoherently moving visual surfaces in visual area hMT+". Paper presented in *SAMBA 2018 - Salzburg Mind-Brain Annual Meeting*.

4 Campos, Alexandre S.; Sousa, Teresa; Duarte, João V.; Costa, Gabriel N.; Martins, Ricardo; Castelo-Branco, Miguel. 2018. "Unraveling the neural correlates of perceptual hysteresis: the effects of perceptual history on the visual perception of an ambiguous stimulus". Paper presented in *FENS 2018 - 11th FENS Forum of Neuroscience*.

5 Sousa, Teresa; Campos, Alexandre S.; Duarte, João V.; Costa, Gabriel N.; Martins, Ricardo; Castelo-Branco, Miguel. 2018. "Evidence for asymmetric perceptual adaptation to coherent and incoherent moving plaids". Paper presented in *OHBM 2018 - 24th Annual Meeting of the Organization for Human Brain Mapping*.

6 Duarte, João V.; Costa, Gabriel N.; Martins, Ricardo; Castelo-Branco, Miguel. 2017. "Beta oscillations during motion integration and segmentation: evidence of binding or perceptual bias?". Paper presented in *13th International Conference for Cognitive Neuroscience*.

7 Sousa, Teresa; Kemper, Valentin; Costa, Gabriel N.; Duarte, João V.; Martins, Ricardo; Goebel, Rainer; Castelo-Branco, Miguel. 2017. "The Perceptual Integration of Visual Motion Revealed by hMT+ Interhemispheric Connectivity: a 7 Tesla study". Paper presented in *13th International Conference for Cognitive Neuroscience, Amsterdam*.

8 Costa, Gabriel N.; Duarte, João V.; Martins, Ricardo; Castelo-Branco, Miguel. 2017. "Beta oscillations reflect perceptual experience under ambiguous stimulation but not in the absence of conflict". Paper presented in *13th International Conference for Cognitive Neuroscience*.

9 Duarte, João V.; Costa, Gabriel N.; Martins, Ricardo; Castelo-Branco, Miguel. 2017. "Long-range interhemispheric binding of bistable surface motion reflects bottom-up processes generated within hMT+". Paper presented in *13th International Conference for Cognitive Neuroscience*.

10 MARTINS, RICARDO; Duarte, João V.; Costa, Gabriel N.; Martins, Ricardo; Castelo-Branco, Miguel. 2017. "Maintenance of perceptual stability of interhemispheric surface motion is associated with bottom-up influences generated within hMT+". Paper presented in *7th Iberian Congress on Perception*.

11 Sousa, Teresa; Duarte, João V.; Costa, Gabriel N.; Kemper, Valentin; Martins, Ricardo; Goebel, Rainer; Castelo-Branco, Miguel. 2017. "High-resolution 7T fMRI data on the perceptual long-range segregation vs. integration of bistable moving stimuli". Paper presented in *7th Iberian Congress on Perception*.

12 Campos, Alexandre S.; Sousa, Teresa; Duarte, João V.; Costa, Gabriel N.; Martins, Ricardo; Castelo-Branco, Miguel. 2017. "Study of motion adaptation and its role in deciding between competing surface representations". Paper presented in *7th Iberian Congress on Perception*.

13 Costa, Gabriel N.; Duarte, João V.; Martins, Ricardo; Wibral, Michael; Castelo-Branco, Miguel. 2017. "Beta oscillations during motion integration and segmentation: evidence of binding or perceptual bias?". Paper presented in *7th Iberian Congress on Perception*.

14 Costa, Gabriel N.; Duarte, João V.; Martins, Ricardo; Wibral, Michael; Castelo-Branco, Miguel. 2016. "Binding of ambiguous visual stimuli is associated with changes in beta power but not with synchrony". Paper presented in *OHBM 2016 - 22nd Annual Meeting of the Organization for Human Brain Mapping*.

15 Sousa, Teresa; Kemper, Valentin; Costa, Gabriel N.; Duarte, João V.; Martins, Ricardo; Goebel, Rainer; Castelo-Branco, Miguel. 2016. "Long-range perceptual integration of visual motion revealed at high resolution 7T fMRI". Paper presented in *OHBM 2016 - 22nd Annual Meeting of the Organization for Human Brain Mapping*.

16 Sousa, Teresa; Costa, Gabriel N.; Duarte, João V.; Martins, Ricardo; Kemper, Valentin; Goebel, Rainer; Castelo-Branco, Miguel. 2015. "Perceptual interpretation of visual motion revealed at high resolution 7T fMRI: differential modulation of neural population activity". Paper presented in *V IBILI Meeting - Coimbra Institute for Clinical and Biomedical Research*.

17 Costa, Gabriel N.; Duarte, João V.; Martins, Ricardo; Madeira, Nuno; Castelo-Branco, Miguel. 2015. "Increased synchrony correlates with visual binding: a study on visual integration on healthy subjects and schizophrenic patients". Paper presented in *Annual Conference on Clinical Neurophysiology and Neuroimaging*.

18 Costa, Gabriel N.; Duarte, João V.; Intaite, Monika; Martins, Ricardo; Castelo-Branco, Miguel. 2014. "Perceptual motion integration correlates with long range neural synchrony: a study on the temporal binding hypothesis". Paper presented in *IV IBILI meeting - Coimbra Institute for Clinical and Biomedical Research*..

19 Martins, Ricardo; Ferreira, João Filipe; Dias, Jorge. 2012. "Touch attention Bayesian models for object feature extraction in robotic blind manipulation". Paper presented in *MaxEnt2012 - International Workshop on Bayesian Inference and Maximum Entropy Methods in Science and Engineering*.

20 Martins, Ricardo; Dias, Jorge; Faria, Diego R.. 2012. "Representation framework of perceived object softness characteristics for active robotic hand exploration". Paper presented in *HANDLE 2012 - workshop on Developmental pathway towards autonomy and dexterity in robot in-hand manipulation*.

Journal article

1 Sousa, Teresa; Duarte, João V.; Costa, Gabriel N.; Kemper, Valentin G.; MARTINS, RICARDO (7F17-8F87-7BB8); Goebel, Rainer; Castelo-Branco, Miguel. 2019. "Tracking perceptual decision mechanisms through changes in interhemispheric functional connectivity in human visual cortex". *Scientific Reports* 9 (1). http://dx.doi.org/10.1038/s41598-018-37822-x.

Published • Open access • 10.1038/s41598-018-37822-x

2 Duarte, João; Madeira, Nuno; Martins, Ricardo; Costa, Gabriel; Macedo, António; Castelo-Branco, Miguel. 2019. "Investigating whole-brain MRI markers in neuropsychiatric disorders – separating disease duration from medication effects in schizophrenia and bipolar disorder". *Frontiers in Cellular Neuroscience* 13. http://dx.doi.org/10.3389/conf.fncel.2019.01.00048.

Published • Open access • 10.3389/conf.fncel.2019.01.00048

3 Sousa, Teresa; Sayal, Alexandre; Duarte, João; Costa, Gabriel; Martins, Ricardo; Castelo-Branco, Miguel. 2019. "Studying the neuronal mechanisms underlying bistable perception: the role of adaptation, persistence, and inhibition on perceptual decision". *Frontiers in Cellular Neuroscience* 13. http://dx.doi.org/10.3389/conf.fncel.2019.01.00045.

Published • Open access • 10.3389/conf.fncel.2019.01.00045

4 Sousa, Teresa; Sayal, Alexandre; Duarte, João V.; Costa, Gabriel N.; Martins, Ricardo; Castelo-Branco, Miguel. 2018. "Evidence for distinct levels of neural adaptation to both coherent and incoherently moving visual surfaces in visual area hMT+". *NeuroImage* 179: 540-547. http://dx.doi.org/10.1016/j.neuroimage.2018.06.075.

Published • 10.1016/j.neuroimage.2018.06.075

5 Costa, Gabriel Nascimento; Duarte, João Valente; Martins, Ricardo; Wibral, Michael; Castelo-Branco, Miguel. 2017. "Interhemispheric Binding of Ambiguous Visual Motion Is Associated with Changes in Beta Oscillatory Activity but Not with Gamma Range Synchrony". *Journal of Cognitive Neuroscience* 29 (11): 1829-1844. http://dx.doi.org/10.1162/jocn_a_01158.

Published • 10.1162/jocn_a_01158

6 Duarte, João Valente; Costa, Gabriel Nascimento; Martins, Ricardo; Castelo-Branco, Miguel. 2017. "Pivotal role of hMT+ in long-range disambiguation of interhemispheric bistable surface motion". *Human Brain Mapping* 38 (10): 4882-4897. http://dx.doi.org/10.1002/hbm.23701.

Published • Open access • 10.1002/hbm.23701

7 Martins, Ricardo; Ferreira, João Filipe; Castelo-Branco, Miguel; Dias, Jorge. 2017. "Integration of touch attention mechanisms to improve the robotic haptic exploration of surfaces". *Neurocomputing* 222: 204-216. http://dx.doi.org/10.1016/j.neucom.2016.10.027.

Published • 10.1016/j.neucom.2016.10.027

	8	Faria, Diego R.; Martins, Ricardo; Lobo, Jorge; Dias, Jorge. 2012. "Extracting data from human manipulation of objects towards improving autonomous robotic grasping". *Robotics and Autonomous Systems* 60 (3): 396-410. http://dx.doi.org/10.1016/j.robot.2011.07.020. Published • 10.1016/j.robot.2011.07.020
	9	Faria, Diego R.; Martins, Ricardo; Lobo, Jorge; Dias, Jorge. 2012. "A Probabilistic Framework to Detect Suitable Grasping Regions on Objects". *IFAC Proceedings Volumes* 45 (22): 247-252. http://dx.doi.org/10.3182/20120905-3-hr-2030.00090. Published • 10.3182/20120905-3-hr-2030.00090
	10	Direito, Bruno; Martins, Ricardo; Costa, Rui P.; Dourado, António; Sales, Francisco; Vieira, Marco. 2009. "Computational Intelligence Algorithms for Seizure Prediction - 8th European Congress on Epileptology". *Epilepsia* 50: 211-211. http://dx.doi.org/10.1111/j.1528-1167.2009.02063.x. Published • 10.1111/j.1528-1167.2009.02063.x
Thesis / Dissertation	1	MARTINS, RICARDO. 2017. "Development of techniques for haptic exploration and recognition of objects - a contribution to autonomous robotic hands". PhD Thesis, Universidade de Coimbra. http://hdl.handle.net/10316/31939.
	2	MARTINS, RICARDO. 2008. "BW-Eye: Ophthalmologic decision support system based on clinical workflow and data mining techniques-image registration algorithm". Master's Diss., Universidade de Coimbra. https://estudogeral.uc.pt/handle/10316/9935.

Other

Dataset	1	Open Data - Human dexterous manipulation multimodal database - PhD project / HANDLE Project. http://mrl.isr.uc.pt/experimentaldata/public/handle/index.php?do=5856.
	2	Open Code - HL7 Health Level 7 message parser. https://github.com/rmartins-net/HL7-Health-Level-7-message-parser.
	3	Open code - DICOM data extraction and display. https://github.com/rmartins-net/DICOM-data-extraction-and-display.
	4	Open code - determination of heart rate from ECG data. https://github.com/rmartins-net/Determination-of-heart-rate-from-ECG-data.
	5	Open code - OCR optical character recognition using neural networks. https://github.com/rmartins-net/OCR-optical-character-recognition-using-neural-networks.
	6	Open code - medical equipment-computer communication - MECIF protocol. https://github.com/rmartins-net/Medical-equipment---Computer-communication---MECIF-protocol.

7 Open code - personalized neural networks for epileptic seizure prediction. http://github.com/rmartins-net/Towards-Personalized-Neural-Networks-for-Epileptic-Seizure-Prediction.

8 Open code - importDatasetTB toolbox - HANDLE project. https://github.com/rmartins-net/MATLAB-importDatasetTB-toolbox.

9 Open code - human body and hand kinematic structure analysis in a 3D environment. https://github.com/rmartins-net/Human-body-and-hand-kinematic-structure-analysis-in-a-3D-environment.

10 Open code - reconstruction of octrees (volumetric grid) from 3D point-cloud. https://github.com/rmartins-net/Reconstruction-of-octrees-from-3D-point-cloud.

11 Open code - moving dots localizer - MT, MST, MT-proper - Psychophysics Toolbox. https://github.com/rmartins-net/Localizer-MT-MST-MT-proper-Psychophysics-Toolbox.

12 Open code - ambiguous and unambiguous plaid motion stimuli - Psychophysics Toolbox. https://github.com/rmartins-net/Ambiguous-and-unambiguous-plaid-motion-stimuli-Psychophysics-Toolbox.

13 Open code - instrumented Rubik cube touch data visualization tool - HANDLE project. https://github.com/rmartins-net/Instrumented-Rubik-cube-touch-data-visualization-tool.

14 Open code - Moving plaids with dots - Psychophysics Toolbox.. https://github.com/rmartins-net/moving-plaid-with-dots.

Activities

Oral presentation

	Presentation title	Event name Host (Event location)
2020/01/23	How do Scientists Study the Brain? - Magnetic Resonance Brain Imaging	Martim de Freitas' High-school Weekly Science Club: "Scientific Method: How do Scientists Study the Brain?" Martim de Freitas' High-school (Coimbra, Portugal)
2014/09/05	Touch attention Bayesian models for robotic active haptic exploration of heterogeneous surfaces	IROS 2014 - IEEE/RSJ International Conference on Intelligent Robots and Systems IEEE Robotics and Automation Society

		(Chicago, United States)
2013/08/30	Touch attention Bayesian models for robotic active haptic exploration	REACTS 2013 - Workshop on Recognition and Action for Scene Understanding - International Conference of Computer Analysis of Images and Patterns CAIP 2013 - International Conference of Computer Analysis of Images and Patterns (York, United Kingdom)
2012/09/06	A Probabilistic Framework to Detect Suitable Grasping Regions on Objects	SYROCO 2012 - IFAC Symposium on Robot Contro International Federation of Automatic Control (Dubrovnik, Croatia)
2012/07/18	Touch attention Bayesian models for object feature extraction in robotic blind manipulation	MaxEnt2012 - International Workshop on Bayesian Inference and Maximum Entropy Methods in Science and Engineering Max Planck Institute for Plasma Physics (Munich, Germany)
2012/03/05	Representation framework of perceived object softness characteristics for active robotic hand exploration	HRI 2012 - ACM/IEEE International Conference on Human-Robot Interaction IEEE Robotics and Automation Society (Boston, United States)
2012/02/03	Representation framework of perceived object softness characteristics for active robotic hand exploration	HANDLE 2012 - workshop on Developmental pathway towards autonomy and dexterity in robot in-hand manipulation Universitat Jaume I (Benicasim, Spain)
2009/07/28	Human reach-to-grasp generalization strategies: a Bayesian approach	RSS 2009 - Robotics: Science and Systems - Workshop: Understanding the Human Hand for Advancing Robotic Manipulation Robotics: Science and Systems (Seattle, United States)

Event organisation

	Event name Type of event (Role)	Institution / Organization
2019/10/01 - 2020/05/31	Martim de Freitas' High-school Weekly Science Club: "Scientific Method: How do Scientists Study the Brain?" (2019/10/01 - 2020/05/31) Exhibition (Co-organisor)	CIBIT-UC: Coimbra Institute for Biomedical Imaging and Translational Research, University of Coimbra, Portugal Universidade de Coimbra Instituto de Ciências Nucleares Aplicadas à Saúde, Portugal

2017/09/01 - 2017/09/01	RO-MAN2017 - IEEE International Symposium on Robot and Human Interactive Communication: Workshop on ARtificial Perception, MAchine Learning and DAtasets for Human-Robot Interaction (ARMADA'17). (2017/09/01 - 2017/09/01) Workshop (Member of the Scientific Committee)	Universidade de Coimbra Instituto de Sistemas e Robótica, Portugal CNC.IBILI, Portugal
2017/07/06 - 2017/07/07	7th Iberian Congress on Perception (2017/07/06 - 2017/07/07) Congress (Member of the Organising Committee)	Universidade de Coimbra Instituto de Ciências Nucleares Aplicadas à Saúde, Portugal CNC.IBILI, Portugal
2012/09/05 - 2012/09/05	SYROCO 2012 - 10th IFAC Symposium on Robot Control - Co-chairing of session "Grasping" (2012/09/05 - 2012/09/05) Conference (Co-organisor)	Universidade de Coimbra, Portugal

Committee member

	Activity description Role	Institution / Organization
2007/08/31 - 2007/09/01	Students' representative in the University of Coimbra Physics Department council. Member	Universidade de Coimbra, Portugal

Conference scientific committee

	Conference title	Conference host
2019/05/29 - 2019/05/31	ICAETT 2019 - International Conference on Advances in Emerging Trends and Technologies	Universidad Tecnológica Israel
2018/10/01 - 2018/10/05	IROS 2018 - IEEE/RSJ International Conference on Intelligent Robots and Systems	IEEE Robotics and Automation Society
2018/09/25 - 2018/09/27	IS 2018 - IEEE International Conference on Intelligent Systems	IEEE Technology and Engineering Management Society
2018/05/21 - 2018/05/25	ICRA 2018 - IEEE International Conference on Robotics and Automation	IEEE Robotics and Automation Society
2017/09/24 - 2017/09/28	IROS 2017 - IEEE/RSJ International Conference on Intelligent Robots and Systems	IEEE Robotics and Automation Society
2016/08/26 - 2016/08/31	RO-MAN 2016 - IEEE International Symposium on Human and Robot Interactive Communication	IEEE Robotics and Automation Society

2014/07/08 - 2014/07/11	AIM 2014 - IEEE/ASME International Conference on Advanced Intelligent Mechatronics	IEEE Robotics and Automation Society
2013/11/03 - 2013/11/07	IROS 2013 - IEEE/RSJ International Conference on Intelligent Robots and Systems	IEEE Robotics and Automation Society
2013/03/18 - 2013/03/22	SAC 2013 - 28th Symposium On Applied Computing	ACM-SIGAPP (Association for Computing Machinery - Special Interest Group on Applied Computing)
2012/11/05 - 2012/11/07	SYROCO 2012 - 10th IFAC Symposium on Robot Control	IFAC - International Federation of Automatic Control
2012/10/07 - 2012/10/12	IROS 2012 - IEEE/RSJ International Conference on Intelligent Robots and Systems	IEEE Robotics and Automation Society
2012/05/14 - 2012/05/18	ICRA 2012 - IEEE International Conference on Robotics and Automation	IEEE Robotics and Automation Society

Consulting

	Activity description	Institution / Organization
2012/01/01 - 2013/01/31	Elaboration of scientific project proposals under the scope of Cognitive Systems and Robotics FP7-ICT-call 9 and FP7-ICT-call 10 : European Commission Seventh Framework Programme for Research and Technological Development Information and Communication Technologies	Universidade de Coimbra Instituto de Sistemas e Robótica, Portugal Universidade de Coimbra, Portugal

Course / Discipline taught

	Academic session	Degree Subject (Type)	Institution / Organization
2009/02/01 - 2009/07/30	Biosignals Processing and Analysis	Engenharia Biomédica (Mestrado integrado)	Universidade de Coimbra, Portugal

Interview (tv / radio show)

	Program	Theme
2014/02/25 - 2014/02/25	HANDLE project - public final demonstration. Contributions: Data and code/algorithms to learn and transfer manipulation skills from human to robot. Data visualization tools.	Autonomous robotic systems with perception and dexterous manipulation capabilities.
2014/02/07 - 2014/02/07	HANDLE project - dissemination video. Presentation and demonstration of	Autonomous robotic systems with perception and dexterous

	project outcomes.	manipulation capabilities.

Journal scientific committee

	Journal title (ISSN)	Publisher
2020/01 - 2020/01	Scientific Reports (2045-2322)	Springer Science and Business Media LLC
2018/03/01 - 2019/04/01	Neurocomputing (0925-2312)	Elsevier
2017/11/01 - 2018/05/31	Journal of Field Robotics (1556-4967)	Wiley (John Wiley & Sons)
2017/10/01 - 2017/12/31	Paladyn Journal of Behavioral Robotics (2081-4836)	De Gruyter Open Sp. z o.o.
2013/04/01 - 2014/08/31	International Journal of Robotics and Automation (0826-8185)	ACTA Press
2012/03/01 - 2012/04/30	Pattern Recognition Letters (0167-8655)	Elsevier

Mentoring / Tutoring

	Topic	Student name
2019/08/01 - Current	PhD Student, Doctoral Programme in Health Sciences, University of Coimbra.	Miguel Bajouco
2017/03/01 - Current	PhD Student, Doctoral Programme in Health Sciences, University of Coimbra.	Nuno Madeira
2019/07/01 - 2020/08/01	MSc Student, Master in Biomedical Engineering, University of Coimbra.	Bruno Santos
2019/07/01 - 2019/08/31	MSc student, Master in Biomedical Engineering, University of Coimbra.	Sofia Silva
2012/09/01 - 2012/11/30	MSc Student, Master in Biomedical Engineering, University of Coimbra.	Maria de Fátima Machado
2012/06/01 - 2012/08/31	MSc Student, Master in Mechanical Engineering, Khalifa University.	Hussam Al-Hussein

Other jury / evaluation

	Activity description	Institution / Organization
2013/03/01 - 2013/04/30	Invited evaluator in FP7-ICT ECHORD project (European Clearing House for Open Robotics Development) : evaluation of the experiments InterAID and ODEUO (outcomes of technology transfer experiments that have been funded by the European Commission).	Università degli Studi della Campania Luigi Vanvitelli, Italy

Distinctions

Award

2019	Janssen Neuroscience RWE Awards 2019 - clinical series Janssen Pharmaceutica NV, Belgium
2007	University of Coimbra - Top 3% best students award Universidade de Coimbra, Portugal
2007	University of Coimbra - best students merit award Universidade de Coimbra, Portugal
2006	University of Coimbra - Top 3% best students award Universidade de Coimbra, Portugal
2006	BPI-FCTUC best biomedical engineering student award Universidade de Coimbra Faculdade de Ciencias e Tecnologia, Portugal
2006	University of Coimbra - best students merit award Universidade de Coimbra, Portugal
2005	University of Coimbra - Top 3% best students award Universidade de Coimbra, Portugal
2005	BPI-FCTUC best biomedical engineering student award Universidade de Coimbra Faculdade de Ciencias e Tecnologia, Portugal
2005	University of Coimbra - best students merit award Universidade de Coimbra, Portugal
2003	BPI-FCTUC best biomedical engineering student award Universidade de Coimbra Faculdade de Ciencias e Tecnologia, Portugal
1996	1st place, I Internal Mathematical Olympiad High School E.B. 2,3/S Pedro da Fonseca, Portugal