



RICARDO FILIPE ALVES MARTINS

Ricardo Martins (RM) holds a Ph.D. in Electrical and Computer Engineering from the University of Coimbra (UC), with a specialization in automation and robotics, and a Master's degree in Biomedical Engineering. His research over the past few years has focused on two distinct areas of innovation: cognitive robotics and neuroimaging in cognitive neuroscience. These fields intersect in his main research interests, which include probability and statistics, multivariate signal/image processing, and computational modeling.

As a postdoctoral researcher at the Coimbra Institute for Biomedical Imaging and Translational Research (CIBIT-UC), RM has advanced his doctoral specialization by receiving training in general computational tools to study neuroimaging data and dynamic PET tracer kinetic modeling. He has focused on the development of computational tools to study neural and behavioral activity in cognitive neuroimaging projects involving MRI, fMRI, PET, and EEG. These projects include computational modeling and pattern recognition (FP7-HANDLE), computer-aided diagnosis tools (FP7-EPILEPSIAE), neuroscience of visual perception (FCT-NeuroHyst), and multimodal neuroimaging biomarkers research for the validation of new therapies in neurological and psychiatric disorders (H2020-AIMS-2-TRIALS, H2020-MarieCurie-ITNNANOSTEM, H2020-STIPED). RM has also been assigned by UC to tutor master's and doctoral students on these topics.

RM's research outcomes have been published in top-tier international journals and conferences covering various fields, including cognitive neuroscience, neuroimaging, biomarker research, robotics, automation, and machine intelligence. He has been invited to review articles for various international journals and IEEE conferences, and his research has been recognized with two national clinical and translational research awards.

Identification

Personal identification

Full name
RICARDO FILIPE ALVES MARTINS

Citation names

Martins, Ricardo

Author identifiers

Ciência ID
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Email addresses

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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
 Medical and Health Sciences - Clinical Medicine - Radiology, Nuclear Medicine and Medical Imaging
 Medical and Health Sciences - Basic Medicine - Neurosciences
 Engineering and Technology - Electrotechnical Engineering, Electronics and Informatics - Robotics and Automatic Control

Languages

Language	Speaking	Reading	Writing	Listening	Peer-review
English	Advanced (C1)	Advanced (C1)	Advanced (C1)	Advanced (C1)	Advanced (C1)
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
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

2018/09/10 - 2018/09/14 Concluded	ETHZ/UZH Computational Psychiatry Course 2018 (Outros)	advanced training
	Departement Informationstechnologie und Elektrotechnik, Switzerland Universität Zürich Institut für Informatik, Switzerland	
2009/10/01 - 2017/02/27 Concluded	Engenharia Eletrotécnica e de Computadores (Doutoramento) Major in Automation and Robotics	Approved with praise and distinction
	Universidade de Coimbra, Portugal <i>"Development of techniques for haptic object exploration: a contribution for autonomous robotic hands" (THESIS/DISSERTATION)</i>	
2016/06/06 - 2016/06/08 Concluded	FieldTrip: a MATLAB toolbox for MEG - EEG analysis (Outros)	advanced training
	Radboud Universiteit Donders Institute for Brain Cognition and Behaviour, Netherlands	
2016/01/01 - 2016/03/31 Concluded	Biostatistics and design of clinical trials (Outros)	advanced training
	Universidade de Coimbra, Portugal	
2010/10/01 - 2011/07/31 Concluded	Advanced studies in Electrical and Computer Engineering (Outros)	Excellent (18 out of 20)
	Universidade de Coimbra, Portugal	
2010/09/27 - 2010/10/01 Concluded	Summer School on Robotic Grasping (Outros)	advanced training
	Universitat Jaume I Escola Superior de Tecnologia i Ciències Experimentals, Spain	
2002/10/01 - 2008/09/18 Concluded	Engenharia Biomédica (Mestrado integrado) Major in Instrumentação Biomédica	Very good with distinction (18 out of 20)
	Universidade de Coimbra, Portugal <i>"BW-Eye: Ophthalmologic decision support system based on clinical workflow and data mining techniques" (THESIS/DISSERTATION)</i>	

Affiliation

Science

	Category Host institution/organization	Employer
2019/10 - Current	Contracted Researcher (Research) Universidade de Coimbra Instituto de Ciências Nucleares Aplicadas à Saúde, Portugal	CIBIT-UC: Coimbra Institute for Biomedical Imaging and Translational Research, University of Coimbra, Portugal
2017/05 - 2019/09	Postdoc (Research)	Universidade de Coimbra Instituto de Ciências Nucleares Aplicadas à Saúde, Portugal
2014/01 - 2017/04	Researcher (Research)	Universidade de Coimbra Instituto de Ciências Nucleares Aplicadas à Saúde, Portugal
2008/10 - 2017/03	Researcher (Research)	Universidade de Coimbra Instituto de Sistemas e Robótica, Portugal

Projects

Grant

	Designation	Funders
2019 - 2025	AIMS-2-TRIALS: Autism Innovative Medicine Studies - 2 - Trials 777394 Researcher 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	EU Framework Programme for Research and Innovation Societal Challenges, Belgium Ongoing
2021 - 2024	NeuroHyst: Neural mechanisms underlying positive and negative perceptual hysteresis PTDC/PSI-GER/1326/2020 Researcher CIBIT-UC: Coimbra Institute for Biomedical Imaging and Translational Research, University of Coimbra, Portugal Centro Hospitalar e Universitário de Coimbra EPE, Portugal	Fundação para a Ciência e a Tecnologia, Portugal Ongoing

2020 - 2022	<p>NANOSTEM: Developing new NANOMaterials for neural STEM cells drug delivery - Marie Skłodowska-Curie Innovative Training Network (ITN) 764958</p> <p>Technical development CIBIT-UC: Coimbra Institute for Biomedical Imaging and Translational Research, University of Coimbra, Portugal</p>	<p>EU Framework Programme for Research and Innovation Excellent Science, Belgium Concluded</p>
2019 - 2022	<p>CEEC-Institucional: Institutional Call to Scientific Employment Stimulus - 1st Edition CEECINST/00041/2018</p> <p>Contracted Researcher Universidade de Coimbra, Portugal CIBIT-UC: Coimbra Institute for Biomedical Imaging and Translational Research, University of Coimbra, Portugal</p>	<p>Fundação para a Ciência e a Tecnologia, Portugal Ongoing</p>
2018 - 2022	<p>BioMuScl: Novel multimodal imaging biomarkers of neuronal connectivity in Multiple Sclerosis PTDC/MEC-NEU/31973/2017</p> <p>Researcher Universidade de Coimbra Instituto de Ciências Nucleares Aplicadas à Saúde, Portugal Centro Hospitalar e Universitário de Coimbra EPE, Portugal</p>	<p>Fundação para a Ciência e a Tecnologia, Portugal Concluded</p>
2017 - 2022	<p>STIPED: Transcranial brain stimulation as innovative therapy for chronic pediatric neuropsychiatric disorder 731827</p> <p>Technical development CIBIT-UC: Coimbra Institute for Biomedical Imaging and Translational Research, University of Coimbra, Portugal Centro Hospitalar e Universitário de Coimbra EPE, Portugal Universidade de Coimbra Instituto de Ciências Nucleares Aplicadas à Saúde, Portugal</p>	<p>EU Framework Programme for Research and Innovation Health Demographic Change and Wellbeing, Belgium Concluded</p>
2018 - 2021	<p>Brain Elasticity in Multiple Sclerosis and implications in mechanomodulation of oligodendrocytes: a cellular and clinical approach PTDC/MED-NEU/29516/2017</p> <p>Researcher Universidade de Coimbra Instituto de Ciências Nucleares Aplicadas à Saúde, Portugal Centro Hospitalar e Universitário de Coimbra EPE, Portugal</p>	<p>Fundação para a Ciência e a Tecnologia, Portugal Concluded</p>
2018 - 2021	<p>AFFECTIVE: Affective disorders- biomarkers and early detection PTDC/MEC-PSQ/30943/2017</p> <p>Researcher Universidade de Coimbra Instituto de Ciências Nucleares Aplicadas à Saúde, Portugal Centro Hospitalar e Universitário de Coimbra EPE, Portugal CNC.IBILI, Portugal</p>	<p>Fundação para a Ciência e a Tecnologia, Portugal Concluded</p>

2017 - 2020	<p>MEDPERSYST: Synaptic networks and Personalized Medicine Approaches to Understand Neurobehavioural Diseases Across the Lifespan SAICTPAC/0010/2015</p> <p>Post-doc Fellow</p> <p>Universidade de Coimbra Instituto de Ciências Nucleares Aplicadas à Saúde, Portugal CNC.IBILI, Portugal Centro Hospitalar e Universitário de Coimbra EPE, Portugal</p>	<p>Fundação para a Ciência e a Tecnologia, Portugal</p> <p>Concluded</p>
2017 - 2019	<p>The role of motion adaptation in bottom-up mechanisms of perceptual decision-making PT/FB/BL-2016-207</p> <p>Researcher</p> <p>Universidade de Coimbra Instituto de Ciências Nucleares Aplicadas à Saúde, Portugal</p>	<p>Fundação Bial, Portugal</p> <p>Concluded</p>
2016 - 2017	<p>Multimodal mapping of visual motion perceptual decision: Dissecting the role of different motion integration areas in visual surface reconstruction PT/FB/BL-2014-373</p> <p>Researcher</p> <p>Universidade de Coimbra Instituto de Ciências Nucleares Aplicadas à Saúde, Portugal CNC.IBILI, Portugal</p>	<p>Fundação Bial, Portugal</p> <p>Concluded</p>
2015 - 2017	<p>Trabalho multidisciplinar no âmbito da ressonância funcional e tomografia de emissão de positrões UID/NEU/04539/2013</p> <p>Researcher</p> <p>Universidade de Coimbra Instituto de Ciências Nucleares Aplicadas à Saúde, Portugal Centro Hospitalar e Universitário de Coimbra EPE, Portugal</p>	<p>Fundação para a Ciência e a Tecnologia, Portugal</p> <p>Concluded</p>
2015 - 2017	<p>Trabalho multidisciplinar no âmbito da ressonância funcional e tomografia de emissão de positrões UID/NEU/04539/2013</p>	<p>Fundação para a Ciência e a Tecnologia, Portugal</p>
2015 - 2017	<p>Trabalho multidisciplinar no âmbito da ressonância funcional e tomografia de emissão de positrões PTDC/MEC-NEU/31973/2017</p>	<p>Fundação para a Ciência e a Tecnologia, Portugal</p>

2014 - 2015	<p>From molecules to man: novel diagnostic imaging tools in neurological and psychiatric disorders CENTRO-07-ST24-FEDER-02005</p> <p>Researcher Universidade de Coimbra Instituto de Ciências Nucleares Aplicadas à Saúde, Portugal Centro Hospitalar e Universitário de Coimbra EPE, Portugal</p>	<p>Fundação para a Ciência e a Tecnologia, Portugal</p> <p>Concluded</p>
2010 - 2013	<p>Development of techniques for haptic object exploration: a contribution for autonomous robotic hands SFRH/BD/65990/2009</p> <p>PhD Student Fellow Universidade de Coimbra Instituto de Sistemas e Robótica, Portugal CNC.IBILI, Portugal</p>	<p>Fundação para a Ciência e a Tecnologia, Portugal Universidade de Coimbra, Portugal</p> <p>Concluded</p>
2009 - 2013	<p>HANDLE: Developmental pathway towards autonomy and dexterity in robot in-hand manipulation 231640</p> <p>PhD Student Fellow Universidade de Coimbra Instituto de Sistemas e Robótica, Portugal</p>	<p>European Commission Seventh Framework Programme for Research and Technological Development Information and Communication Technologies, Belgium</p> <p>Concluded</p>
2008 - 2009	<p>PROMETHEUS: Prediction and interpretation of human behaviour based on probabilistic structures and heterogeneous sensors 214901</p> <p>Research Fellow Universidade de Coimbra, Portugal Universidade de Coimbra Instituto de Sistemas e Robótica, Portugal</p>	<p>European Commission Seventh Framework Programme for Research and Technological Development Information and Communication Technologies, Belgium</p> <p>Concluded</p>
2007 - 2008	<p>EPILEPSIAE: Evolving Platform for Improving the Living Expectations of Patients Suffering from IctAI Events 211713</p> <p>Master Student Fellow Universidade de Coimbra Centro de Informatica e Sistemas, Portugal Universidade de Coimbra, Portugal Centro Hospitalar e Universitário de Coimbra EPE, Portugal</p>	<p>European Commission Seventh Framework Programme for Research and Technological Development Information and Communication Technologies, Belgium</p> <p>Concluded</p>

Outputs

Publications

- | | | |
|--------------|---|---|
| Book chapter | 1 | Pereira, H. Catarina; Sousa, Daniela; Simões, Marco; Martins, Ricardo; Amaral, Carlos; Lopes, Vânia; Crisóstomo, Joana; Castelo-Branco, Miguel. Corresponding author: Castelo-Branco, Miguel. "Effects of anodal multichannel transcranial direct current stimulation (tDCS) on social-cognitive performance in healthy subjects: A randomized sham-controlled crossover pilot study". In <i>Non-invasive Brain Stimulation (NIBS) in Neurodevelopmental Disorders</i> , 259-286. Elsevier, 2021.
Published · 10.1016/bs.pbr.2021.04.004 |
| | 2 | Faria, Diego R.; Martins, Ricardo; Lobo, Jorge; Dias, Jorge. "Manipulative Tasks Identification by Learning and Generalizing Hand Motions". In <i>IFIP Advances in Information and Communication Technology</i> , 173-180. Springer Berlin Heidelberg, 2011.
Published · 10.1007/978-3-642-19170-1_19 |
| | 3 | Faria, Diego R.; Martins, Ricardo; Dias, Jorge. "Grasp Exploration for 3D Object Shape Representation Using Probabilistic Map". In <i>IFIP Advances in Information and Communication Technology</i> , 215-222. Springer Berlin Heidelberg, 2010.
Published · 10.1007/978-3-642-11628-5_23 |
| | 4 | Dourado, António; Martins, Ricardo; Duarte, João; Direito, Bruno. "Towards Personalized Neural Networks for Epileptic Seizure Prediction". In <i>Artificial Neural Networks - ICANN 2008</i> , 479-487. Springer Berlin Heidelberg, 2008.
Published · 10.1007/978-3-540-87559-8_50 |
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- | | | |
|------------------|---|--|
| Conference paper | 1 | Lapo Pais, Marta; Jorge, Lília; Martins, Ricardo; Canário, Nádia; Xavier, Carolina; Abrunhosa, Antero; Santana, Isabel; Bernardes, Rui; Castelo-Branco, Miguel. "Texture Quantification Parameters for Alzheimer's disease diagnosis measured by 11C- (R)- PK11195 PET images". Paper presented in <i>European Journal of Nuclear Medicine and Molecular Imaging - EANM2021 - Annual Congress of the European Association of Nuclear Medicine, Online</i> , 2021.
Published |
| | 2 | Martins, Ricardo; Filipe Ferreira, Joao; Dias, Jorge. "Touch attention Bayesian models for robotic active haptic exploration of heterogeneous surfaces". Paper presented in <i>IROS 2014 - 2014 IEEE/RSJ International Conference on Intelligent Robots and Systems, Taipei</i> , 2014.
Published · 10.1109/iros.2014.6942711 |
| | 3 | Martins, Ricardo; Ferreira, João Filipe; Dias, Jorge. "Touch attention Bayesian models for robotic active haptic exploration". Paper presented in <i>REACTS 2013 - Workshop on Recognition and Action for Scene Understanding - International Conference of Computer Analysis of Images and Patterns, York</i> , 2013.
Published |
| | 4 | Martins, Ricardo; Faria, Diego R.; Dias, Jorge. "Representation framework of perceived object softness characteristics for active robotic hand exploration". Paper presented in <i>HRI 2012 - ACM/IEEE International Conference on Human-Robot Interaction, Boston</i> , 2012.
Published · 10.5281/zenodo.4553427 |

- 5 Faria, Diego R; Martins, Ricardo; Lobo, Jorge; Dias, Jorge. "Probabilistic representation of 3D object shape by in-hand exploration". Paper presented in *IROS 2010 - 2010 IEEE/RSJ International Conference on Intelligent Robots and Systems, Taipei*, 2010.
Published · 10.1109/iros.2010.5649286
- 6 Martins, Ricardo; Faria, Diego R.; Dias, Jorge. "Symbolic Level Generalization of In-hand Manipulation Tasks from Human Demonstrations using Tactile Data Information". Paper presented in *IROS 2010 - 2010 IEEE/RSJ International Conference on Intelligent Robots and Systems*, 2010.
Published · 10.5281/zenodo.4553413
- 7 Faria, Diego R.; Martins, Ricardo; Dias, Jorge. "Learning Motion Patterns from Multiple Observations along the Actions Phases of Manipulative Tasks". Paper presented in *IROS 2010 - 2010 IEEE/RSJ International Conference on Intelligent Robots and Systems, Taipei*, 2010.
Published · 10.5281/zenodo.4553421
- 8 Faria, Diego R.; Martins, Ricardo; Dias, Jorge. "Human reach-to-grasp generalization strategies: a Bayesian approach". Paper presented in *RSS 2009 - Robotics: Science and Systems, Seattle*, 2009.
Published · 10.5281/zenodo.4553390

Conference poster

- 1 Duarte, João; Martins, Ricardo; Madeira, Nuno; Young, Kymberly; Macedo, António; Castelo-Branco, Miguel. Corresponding author: Castelo-Branco, Miguel. "A structural MRI study of cortical complexity features of major depression, schizophrenia, and bipolar disorder". Paper presented in *FRM 2023 - Federation of European Neuroscience Societies, Regional Meeting*, 2023.
- 2 Mehra, Chirag; Onwordi, Ellis; Kowalewska, Beata; Whitehurst, Thomas; Shatalina, Ekaterina; Griffioen, Gina; Martins, Ricardo; et al. "Synaptic density marker, SV2A, is reduced in autistic adults". Paper presented in *INSAR meeting 2023 - International Society for Autism Research*, 2023.
- 3 Ferreira, Mariana S.; d'Almeida, Otília C.; Quental, Hugo; Martins, Ricardo; Lemos, João; Jorge, André; Castelo-Branco, Miguel. "Nervous system plasticity in stroke: functional magnetic resonance and PET". Paper presented in *CIBIT meeting 2023 - Coimbra Institute for Biomedical Imaging and Translational Research*, 2022.
- 4 Costa, Gabriel N.; Schaum, Michael; MARTINS, RICARDO; Duarte, João V.; Castelhana, João; Wibrál, Michael; Castelo-Branco, Miguel. "Distinct roles of beta and gamma oscillations during integration of ambiguous motion". Paper presented in *FRM 2019 - Federation of European Neuroscience Societies Regional meeting*, 2019.
- 5 Campos, Alexandre S.; Sousa, Teresa; Duarte, João V.; Costa, Gabriel N.; Martins, Ricardo; Castelo-Branco, Miguel; Sayal, Alexandre. "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*, 2018.
- 6 Sousa, Teresa; Campos, Alexandre S.; Duarte, João V.; Costa, Gabriel N.; Martins, Ricardo; Castelo-Branco, Miguel. "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, 2018.

- 7 Sousa, Teresa; Kemper, Valentin; Costa, Gabriel N.; Duarte, João V.; Martins, Ricardo; Goebel, Rainer; Castelo-Branco, Miguel. "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*, 2017.
- 8 Costa, Gabriel N.; Duarte, João V.; Martins, Ricardo; Castelo-Branco, Miguel. "Beta oscillations reflect perceptual experience under ambiguous stimulation but not in the absence of conflict". Paper presented in *13th International Conference for Cognitive Neuroscience*, 2017.
- 9 Duarte, João V.; Costa, Gabriel N.; Martins, Ricardo; Castelo-Branco, Miguel. "Long-range interhemispheric binding of bistable surface motion reflects bottom-up processes generated within hMT+". Paper presented in *13th International Conference for Cognitive Neuroscience*, 2017.
- 10 MARTINS, RICARDO; Duarte, João V.; Costa, Gabriel N.; Martins, Ricardo; Castelo-Branco, Miguel. "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*, 2017.
- 11 Sousa, Teresa; Duarte, João V.; Costa, Gabriel N.; Kemper, Valentin; Martins, Ricardo; Goebel, Rainer; Castelo-Branco, Miguel. "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*, 2017.
- 12 Campos, Alexandre S.; Sousa, Teresa; Duarte, João V.; Costa, Gabriel N.; Martins, Ricardo; Castelo-Branco, Miguel. "Study of motion adaptation and its role in deciding between competing surface representations". Paper presented in *7th Iberian Congress on Perception*, 2017.
- 13 Costa, Gabriel N.; Duarte, João V.; Martins, Ricardo; Wibral, Michael; Castelo-Branco, Miguel. "Beta oscillations during motion integration and segmentation: evidence of binding or perceptual bias?". Paper presented in *7th Iberian Congress on Perception*, 2017.
- 14 Costa, Gabriel N.; Duarte, João V.; Martins, Ricardo; Wibral, Michael; Castelo-Branco, Miguel. "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*, 2016.
- 15 Sousa, Teresa; Kemper, Valentin; Costa, Gabriel N.; Duarte, João V.; Martins, Ricardo; Goebel, Rainer; Castelo-Branco, Miguel. "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*, 2016.

- 16 Sousa, Teresa; Costa, Gabriel N.; Duarte, João V.; Martins, Ricardo; Kemper, Valentin; Goebel, Rainer; Castelo-Branco, Miguel. "Perceptual interpretation of visual motion revealed at high resolution 7T fMRI: differential modulation of neural population activity". Paper presented in *VIBILI Meeting - Coimbra Institute for Clinical and Biomedical Research*, 2015.
- 17 Costa, Gabriel N.; Duarte, João V.; Martins, Ricardo; Madeira, Nuno; Castelo-Branco, Miguel. "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*, 2015.
- 18 Costa, Gabriel N.; Duarte, João V.; Intaite, Monika; Martins, Ricardo; Castelo-Branco, Miguel. "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.*, 2014.
- 19 Martins, Ricardo; Ferreira, João Filipe; Dias, Jorge. "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*, 2012.

Journal article

- 1 Bourbon-Teles, José; Jorge, Lília; Canário, Nádia; Martins, Ricardo; Santana, Isabel; Castelo-Branco, Miguel. Corresponding author: Castelo-Branco, Miguel. "Associations between cortical β -amyloid burden, fornix microstructure and cognitive processing of faces, places, bodies and other visual objects in early Alzheimer's disease". *Hippocampus* (2022): <http://dx.doi.org/10.1002/hipo.23493>.
Published • Open access • 10.1002/hipo.23493
- 2 Canário, Nádia; Jorge, Lília; Martins, Ricardo; Santana, Isabel; Castelo-Branco, Miguel. Corresponding author: Castelo-Branco, Miguel. "Dual PET-fMRI reveals a link between neuroinflammation, amyloid binding and compensatory task-related brain activity in Alzheimer's disease". *Communications Biology* 5 1 (2022): <http://dx.doi.org/10.1038/s42003-022-03761-7>.
Published • Open access • 10.1038/s42003-022-03761-7
- 3 Madeira, Nuno; Martins, Ricardo; Valente Duarte, João; Costa, Gabriel; Macedo, António; Castelo-Branco, Miguel. Corresponding author: Castelo-Branco, Miguel. "A Fundamental Distinction in Early Neural Processing of Implicit Social Interpretation in Schizophrenia and Bipolar Disorder". *NeuroImage: Clinical* (2021): 102836. <http://dx.doi.org/10.1016/j.nicl.2021.102836>.
Published • Open access • 10.1016/j.nicl.2021.102836
- 4 Martins, Ricardo; Oliveira, Francisco; Moreira, Fradique; Moreira, Ana Paula; Abrunhosa, Antero; Januario, Cristina; Castelo-Branco, Miguel. "Automatic classification of idiopathic Parkinson's disease and atypical parkinsonian syndromes combining [11 C]raclopride PET uptake and MRI grey matter morphometry". *Journal of Neural Engineering* 18 4 (2021): <http://dx.doi.org/10.1088/1741-2552/abf772>.
Published • Open access • 10.1088/1741-2552/abf772
- 5 Sousa, Teresa; Duarte, João V.; Costa, Gabriel N.; Kemper, Valentin G.; Martins, Ricardo; Goebel, Rainer; Castelo-Branco, Miguel. "The dual nature of the BOLD signal: Responses in visual area hMT + reflect both input properties and perceptual decision". *Human Brain Mapping* (2021): <http://dx.doi.org/10.1002/hbm.25339>.

- 6 Jorge, Lília; Martins, Ricardo; Canário, Nádia; Xavier, Carolina; Abrunhosa, Antero; Santana, Isabel; Castelo-Branco, Miguel. Corresponding author: Castelo-Branco, Miguel. "Investigating the Spatial Associations Between Amyloid- β Deposition, Grey Matter Volume, and Neuroinflammation in Alzheimer's Disease". *Journal of Alzheimer's Disease* (2021): 1-20. <http://dx.doi.org/10.3233/jad-200840>.
Published • Open access • 10.3233/jad-200840
- 7 Jorge, Lília; Canário, Nádia; Martins, Ricardo; Santiago, Beatriz; Santana, Isabel; Quental, Hugo; Ambrósio, Francisco; Bernardes, Rui; Castelo-Branco, Miguel. Corresponding author: Castelo-Branco, Miguel. "The Retinal Inner Plexiform Synaptic Layer Mirrors Grey Matter Thickness of Primary Visual Cortex with Increased Amyloid β Load in Early Alzheimer's Disease". *Neural Plasticity* 2020 (2020): <https://doi.org/10.1155/2020/8826087>.
Published • Open access • 10.1155/2020/8826087
- 8 Sayal, Alexandre; Sousa, Teresa; Duarte, João V.; Costa, Gabriel N.; Martins, Ricardo; Castelo-Branco, Miguel. "Identification of competing neural mechanisms underlying positive and negative perceptual hysteresis in the human visual system". *NeuroImage* (2020): 117153. <http://dx.doi.org/10.1016/j.neuroimage.2020.117153>.
Published • Open access • 10.1016/j.neuroimage.2020.117153
- 9 Madeira, Nuno; Duarte, João Valente; Martins, Ricardo; Costa, Gabriel Nascimento; Macedo, António; Castelo-Branco, Miguel. "Morphometry and gyrification in bipolar disorder and schizophrenia: A comparative MRI study". *NeuroImage: Clinical* 26 (2020): 102220. <http://dx.doi.org/10.1016/j.nicl.2020.102220>.
Published • Open access • 10.1016/j.nicl.2020.102220
- 10 Sousa, Teresa; Duarte, João V.; Costa, Gabriel N.; Kemper, Valentin G.; Martins, Ricardo; Goebel, Rainer; Castelo-Branco, Miguel. "Tracking perceptual decision mechanisms through changes in interhemispheric functional connectivity in human visual cortex". *Scientific Reports* 9 1 (2019): <http://dx.doi.org/10.1038/s41598-018-37822-x>.
Published • Open access • 10.1038/s41598-018-37822-x
- 11 Duarte, João; Madeira, Nuno; Martins, Ricardo; Costa, Gabriel; Macedo, António; Castelo-Branco, Miguel. "Investigating whole-brain MRI markers in neuropsychiatric disorders – separating disease duration from medication effects in schizophrenia and bipolar disorder". *Frontiers in Cellular Neuroscience* 13 (2019): <http://dx.doi.org/10.3389/conf.fncel.2019.01.00048>.
Published • Open access • 10.3389/conf.fncel.2019.01.00048
- 12 Sousa, Teresa; Sayal, Alexandre; Duarte, João; Costa, Gabriel; Martins, Ricardo; Castelo-Branco, Miguel. "Studying the neuronal mechanisms underlying bistable perception: the role of adaptation, persistence, and inhibition on perceptual decision". *Frontiers in Cellular Neuroscience* 13 (2019): <http://dx.doi.org/10.3389/conf.fncel.2019.01.00045>.
Published • Open access • 10.3389/conf.fncel.2019.01.00045
- 13 Sousa, Teresa; Sayal, Alexandre; Duarte, João V.; Costa, Gabriel N.; Martins, Ricardo; Castelo-Branco, Miguel. "Evidence for distinct levels of neural adaptation to both coherent and incoherently moving visual surfaces in visual area hMT+ ". *NeuroImage* 179 (2018): 540-547. <http://dx.doi.org/10.1016/j.neuroimage.2018.06.075>.
Published • Open access • 10.1016/j.neuroimage.2018.06.075

- 14 Costa, Gabriel Nascimento; Duarte, João Valente; Martins, Ricardo; Wibrál, Michael; Castelo-Branco, Miguel. "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 (2017): 1829-1844. http://dx.doi.org/10.1162/jocn_a_01158.
Published · Open access · 10.1162/jocn_a_01158
- 15 Duarte, João Valente; Costa, Gabriel Nascimento; Martins, Ricardo; Castelo-Branco, Miguel. "Pivotal role of hMT+ in long-range disambiguation of interhemispheric bistable surface motion". *Human Brain Mapping* 38 10 (2017): 4882-4897. <http://dx.doi.org/10.1002/hbm.23701>.
Published · Open access · 10.1002/hbm.23701
- 16 Martins, Ricardo; Ferreira, João Filipe; Castelo-Branco, Miguel; Dias, Jorge. "Integration of touch attention mechanisms to improve the robotic haptic exploration of surfaces". *Neurocomputing* 222 (2017): 204-216. <http://hdl.handle.net/10316/92454>.
Published · Open access · 10.1016/j.neucom.2016.10.027
- 17 Faria, Diego R.; Martins, Ricardo; Lobo, Jorge; Dias, Jorge. "Extracting data from human manipulation of objects towards improving autonomous robotic grasping". *Robotics and Autonomous Systems* 60 3 (2012): 396-410. <http://hdl.handle.net/10316/92463>.
Published · Open access · 10.1016/j.robot.2011.07.020
- 18 Faria, Diego R.; Martins, Ricardo; Lobo, Jorge; Dias, Jorge. "A Probabilistic Framework to Detect Suitable Grasping Regions on Objects". *IFAC Proceedings Volumes* 45 22 (2012): 247-252. <http://dx.doi.org/10.3182/20120905-3-hr-2030.00090>.
Published · Open access · 10.3182/20120905-3-hr-2030.00090
- 19 Direito, Bruno; Martins, Ricardo; Costa, Rui P.; Dourado, António; Sales, Francisco; Vieira, Marco. "Computational Intelligence Algorithms for Seizure Prediction - 8th European Congress on Epileptology". *Epilepsia* 50 (2009): 211-211. <http://dx.doi.org/10.1111/j.1528-1167.2009.02063.x>.
Published · Open access

Thesis / Dissertation

- 1 MARTINS, RICARDO. "Development of techniques for haptic exploration and recognition of objects - a contribution to autonomous robotic hands". PhD, Universidade de Coimbra, 2017. <http://hdl.handle.net/10316/31939>.
- 2 MARTINS, RICARDO. "BW-Eye: Ophthalmologic decision support system based on clinical workflow and data mining techniques-image registration algorithm". Master, Universidade de Coimbra, 2008. <https://estudogeral.uc.pt/handle/10316/9935>.
10.5281/zenodo.4553367

Other

Dataset

- 1 Martins, Ricardo. Open code - journal paper - personalized neural networks for epileptic seizure prediction. <http://github.com/rmartins-net/Towards-Personalized-Neural-Networks-for-Epileptic-Seizure-Prediction>.
10.5281/zenodo.4570620
- 2 Martins, Ricardo. Open Code - journal paper - Identification of competing neural mechanisms underlying positive and negative perceptual hysteresis in the human visual system. https://github.com/CIBIT-UC/public_vphysteresis.

Activities

Oral presentation

	Presentation title	Event name Host (Event location)
2022/10	Data analysis pipelines in brain PET-MRI studies: ICNAS research activities	IAEA's technical cooperation project ARG6021 - Advancing Nuclear Medicine and Radiology Through Innovative Data Driven Methodologies ICNAS-UC (Coimbra, Portugal)
2022/07	ICNAS-UC MRI unit - visit and demonstration (instrumentation, study design, structural and functional imaging data)	CIBIT Summer School 2022 CIBIT - Coimbra Institute for Biomedical Imaging and Translational Research (Coimbra, Portugal)
2021/11/30	"How do Scientists Study the Brain? Introduction to Magnetic Resonance Brain Imaging" - Martim de Freitas' High-school Weekly Science Club 2021/2022	Martim de Freitas' High-school Weekly Science Club 2021/2022 Martim de Freitas' High-school (Coimbra, Portugal)
2020/01/23	"How do Scientists Study the Brain? Introduction to Magnetic Resonance Brain Imaging" - Martim de Freitas' High-school Weekly Science Club 2019/2020	Martim de Freitas' High-school Weekly Science Club 2019/2020 Martim de Freitas' High-school (Coimbra, Portugal)
2019/10/21	Neuroimaging studies in psychiatric disorders: an overview of CIBIT's projects	Psychiatry course Integrated Master's degree in Medicine - University of Coimbra (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 Control 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)
2010/10/18	Symbolic Level Generalization of In-hand Manipulation Tasks from Human Demonstrations using Tactile Data Information	IROS 2010 - IEEE/RSJ International Conference on Intelligent Robots and Systems - Workshop on Grasping Planning and Task Learning by Imitation IEEE Robotics and Automotaton Society (Taipei, Taiwan)
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 - 2021/01	Martim de Freitas' school Weekly Science Club: "Scientific Method: How do Scientists Study the Brain?" (2019/10 - 2021/01) Exhibition (Co-organisator)	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	Universidade de Coimbra Instituto de Sistemas e Robótica, Portugal

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)

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

Event participation

Activity description
Type of event

Event name
Institution / Organization

2023/01/19 -
2023/01/20

Kraepelin Symposium 2023: "Precision Psychiatry - Transforming the Landscape of Mental Health Care" (online)

Symposium

Kraepelin Symposium 2023

Ludwig-Maximilians-Universität München, Germany

2022/07/26 -
2022/07/26

Introdution to Siemens syngo.share universal Vendor Neutral Archive (VNA). Management and sharing of clinical image data, multimedia data, radiological studies and clinical documents.

Workshop

Introdution to Siemens syngo.share

Universidade de Coimbra, Portugal
Siemens Healthcare GmbH, Germany

2022/05/28 -
2022/05/28

PET for brain connectivity: back to the future? (online)

Workshop

Brain and Brain PET 2022 - Satellite Symposium

University of Glasgow, United Kingdom

2022/04/04 -
2022/04/06

Turku PET Centre - PET basics course 2022 (online)

Workshop

Turku PET Centre - PET basics course 2022

Turun PET keskus, Finland

2021/12/15 - 2021/12/15

Proton Therapy: the Challenges and the Opportunities (online)

Symposium

The University of Texas at Austin, United States

Universidade de Coimbra, Portugal

2021/11/18 - 2021/11/18

Introdution to Siemens syngo.via imaging software. Advanced

Introdution to Siemens syngo.via imaging software.

visualization and quantification of PET and MRI data.

Workshop

Siemens Healthcare GmbH, Germany
Universidade de Coimbra Instituto de Ciências Nucleares Aplicadas à Saúde, Portugal

2021/11/11 - 2021/11/12	Introduction to Data Management Plans. From introduction and basic concepts to hands-on exercises. Workshop	Introduction to Data Management Plans CIBIT-UC: Coimbra Institute for Biomedical Imaging and Translational Research, University of Coimbra, Portugal
2021/08/18 - 2021/08/20	Turku PET Centre - brain imaging course 2021 (online) Workshop	Turku PET Centre Brain Imaging Course 2021 (online) Turun PET keskus, Finland
2021/05/25 - 2021/05/28	Brain Connectivity Workshop 2021 (online) Workshop	Brain Connectivity Workshop 2021 (online) Rotman Research Institute, Canada
2021/04/06 - 2021/04/08	Turku PET Centre - PET basics course 2021 (online) Workshop	Turku PET Centre - PET basics course 2021 Turun PET keskus, Finland
2021/03/01 - 2021/03/03	Terra Incognita: diving into the subcortex 2021 (online) Workshop	Terra Incognita: diving into the subcortex 2021 (online) Universiteit van Amsterdam, Netherlands
2020/04/19 - 2020/04/19	Computational Psychiatry Satellite Event - Society of Biological Psychiatry Annual Meeting 2020 (online) Workshop	Computational Psychiatry Satellite Event - Society of Biological Psychiatry Annual Meeting 2020 (online) Society of Biological Psychiatry, United States
2019/10/07 - 2019/10/09	KCL PET Methodology Course 2019 Workshop	2019 KCL PET Methodology Course King's College London, United Kingdom
2019/07/11 - 2019/07/18	IST Lisbon Machine Learning School 2019 Workshop	2019 IST Lisbon Machine Learning School Universidade de Lisboa, Portugal
2018/09/10 - 2018/09/14	ETHZ/UZH Computational Psychiatry Course 2018 Workshop	ETHZ/UZH Computational Psychiatry Course 2018 Eidgenössische Technische Hochschule Zürich, Switzerland
2014/09/14 - 2014/09/18	IROS 2014 - IEEE/RSJ International Conference on Intelligent Robots and Systems Conference	IROS 2014 - IEEE/RSJ International Conference on Intelligent Robots and Systems IEEE Robotics and Automation Society,

2012/09/05 - 2012/09/07	SYROCO 2012 - IFAC Symposium on Robot Control Conference	SYROCO 2012 - IFAC Symposium on Robot Control International Federation of Automatic Control, Austria
2012/07/15 - 2012/07/20	MaxEnt 2012 - International Workshop on Bayesian Inference and Maximum Entropy Methods in Science and Engineering Workshop	MaxEnt 2012 - International Workshop on Bayesian Inference and Maximum Entropy Methods in Science and Engineering Max-Planck-Institut für Plasmaphysik, Germany
2012/03/05 - 2012/03/08	HRI2012 - ACM/IEEE international conference on Human-Robot Interaction Conference	HRI2012 - ACM/IEEE international conference on Human-Robot Interaction IEEE Robotics and Automation Society, United States
2010/10/18 - 2010/10/22	IROS 2010 - IEEE/RSJ International Conference on Intelligent Robots and Systems Conference	IROS 2010 - IEEE/RSJ International Conference on Intelligent Robots and Systems IEEE Robotics and Automation Society, United States
2010/09/27 - 2010/10/01	Summer School on Robotic Grasping 2010 Workshop	Summer School on Robotic Grasping 2010 Universitat Jaume I, Spain
2009/06/28 - 2009/07/01	RSS 2009 - Robotics: Science and Systems Conference	RSS 2009 - Robotics: Science and Systems University of Washington College of Engineering, United States

Jury of academic degree

	Theme Role	Candidate name (Type of degree) Institution / Organization
2022/09/29	Functional connectivity as potential biomarker in Multiple Sclerosis using fMRI (Thesis) Main arguer	Jacinta Maria Henriques Silva (Master) Universidade de Coimbra, Portugal
2021/09/27	Multivariate analysis of brain fMRI activity patterns - Análise multivariada de padrões cerebrais no estudo do discurso e representação semântica de conceitos (Thesis) Main arguer	Ana Catarina Pires Nogueira (Other) Instituto Politécnico de Coimbra Instituto Superior de Engenharia de Coimbra, Portugal

Ad Hoc journal article review

	Journal title (ISSN)	Publisher
2021/02 - Current	Physics in Medicine and Biology (0031-9155)	IOP
2020/10 - Current	IEEE Transactions on Robotics (1552-3098)	IEEE
2020/07 - Current	IEEE Transactions on Cybernetics (2168-2267)	IEEE
2020/01 - Current	Scientific Reports (2045-2322)	Springer Science and Business Media LLC
2018/09 - Current	IEEE Intelligent Systems (1541-1672)	IEEE
2018/03/01 - Current	Neurocomputing (0925-2312)	Elsevier
2017/11/01 - Current	Journal of Field Robotics (1556-4967)	Wiley (John Wiley & Sons)
2017/10/01 - Current	Paladyn Journal of Behavioral Robotics (2081-4836)	De Gruyter Open Sp. z o.o.
2013/04/01 - Current	International Journal of Robotics and Automation (0826-8185)	ACTA Press
2012/03/01 - Current	Pattern Recognition Letters (0167-8655)	Elsevier

Committee member

	Activity description Role	Institution / Organization
2006 - 2007	Students' representative in the University of Coimbra Physics Department council. Member	Universidade de Coimbra, Portugal

Conference scientific committee

	Conference title	Conference host
2023 - 2023	ICRA 2023 - IEEE International Conference on Robotics and Automation (conference paper reviewer)	IEEE Robotics and Automotaton Society
2021 - 2021	WHC 2021 - IEEE World Haptics Conference (conference paper reviewer)	IEEE Robotics and Automotaton Society
2021 - 2021	CASE 2021 - IEEE International Conference on Automation Science and Engineering (conference paper reviewer)	IEEE Robotics and Automotaton Society
2020 - 2020	UR 2020 - IEEE International Conference on Ubiquitous Robots (conference paper reviewer)	IEEE Robotics and Automotaton Society
2020 - 2020	CASE 2020 - IEEE International Conference on Automation Science and Engineering	IEEE Robotics and Automotaton Society

(conference paper reviewer)

2020 - 2020	ROMAN 2020 - IEEE International Conference on Robot & Human Interactive Communication (conference paper reviewer)	IEEE Robotics and Automotaton Society
2020 - 2020	SSRR 2020 - IEEE International Symposium on Safety, Security and Rescue Robotics (conference paper reviewer)	IEEE Robotics and Automotaton Society
2019 - 2019	ICAETT 2019 - International Conference on Advances in Emerging Trends and Technologies (conference paper reviewer)	Universidad Tecnológica Israel
2018 - 2018	ICRA 2018 - IEEE International Conference on Robotics and Automation (conference paper reviewer)	IEEE Robotics and Automation Society
2018 - 2018	IROS 2018 - IEEE/RSJ International Conference on Intelligent Robots and Systems (conference paper reviewer)	IEEE Robotics and Automation Society
2018 - 2018	IS 2018 - IEEE International Conference on Intelligent Systems (conference paper reviewer)	IEEE Technology and Engineering Management Society
2017 - 2017	IROS 2017 - IEEE/RSJ International Conference on Intelligent Robots and Systems (conference paper reviewer)	IEEE Robotics and Automation Society
2016 - 2016	RO-MAN 2016 - IEEE International Symposium on Human and Robot Interactive Communication (conference paper reviewer)	IEEE Robotics and Automation Society
2014 - 2014	AIM 2014 - IEEE/ASME International Conference on Advanced Intelligent Mechatronics (conference paper reviewer)	IEEE Robotics and Automation Society
2013 - 2013	IROS 2013 - IEEE/RSJ International Conference on Intelligent Robots and Systems (conference paper reviewer)	IEEE Robotics and Automation Society
2013 - 2013	SAC 2013 - 28th Symposium On Applied Computing (conference paper reviewer)	ACM-SIGAPP (Association for Computing Machinery - Special Interest Group on Applied Computing)
2012 - 2012	ICRA 2012 - IEEE International Conference on Robotics and Automation (conference paper reviewer)	IEEE Robotics and Automation Society
2012 - 2012	IROS 2012 - IEEE/RSJ International Conference on Intelligent Robots and Systems (conference paper reviewer)	IEEE Robotics and Automation Society
2012 - 2012	SYROCO 2012 - 10th IFAC Symposium on Robot Control (conference paper reviewer)	IFAC - International Federation of Automatic Control

Course / Discipline taught

	Academic session	Degree Subject (Type)	Institution / Organization
2008 - 2009	Biosignals Processing and Analysis / Signals and Systems	Biomedical Engineering / Physics Engineering (Mestrado integrado)	Universidade de Coimbra, Portugal

Interview (newspaper / magazine)

	Activity description	Newspaper / Forum
2014/04	Interview with Ricardo Martins (alumnus). Science dissemination activity. Public engagement and outreach.	School Newspaper "Nova Geração" - Agrupamento de Escolas de Proença-a-Nova.

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. https://youtu.be/XSw5QVdzGW4	Autonomous robotic systems with perception and dexterous manipulation capabilities.
2014/02/07 - 2014/02/07	HANDLE project - dissemination video. Presentation and demonstration of project outcomes. https://youtu.be/KJybBorZjH0	Autonomous robotic systems with perception and dexterous manipulation capabilities.

Mentoring / Tutoring

	Topic	Student name
2022/01 - Current	Neuroplasticity in stroke recovery - [¹¹ C] UCB-J dynamic positron emission tomography: study design, kinetic modelling and quantification, statistical data analysis.	Mariana Ferreira (Master student, Biomedical Engineering, University of Coimbra)
2021/07 - Current	Neuroinflammation and amyloid- β deposits in Alzheimer's Disease - [¹¹ C] PK11195, [¹¹ C]PiB dynamic positron emission tomography: study design, kinetic modelling and quantification, statistical data analysis.	Nádia Canário (PhD student, HealthSciences, University of Coimbra)
2020/07 - Current	Stratifying response to treatment in stroke recovery - [⁶⁸ Ga]Ga-citrate dynamic positron emission tomography: study design, kinetic modelling and quantification, statistical data analysis.	Sara Bernardo (PhD student, Univ. Coimbra, Marie Skłodowska-Curie Innovative Training Network ITN)

2019/08/01 - Current	Stratifying response to treatment in first-episode psychosis - Scientific and technical introduction to functional magnetic resonance imaging and positron emission tomography study design, kinetic modelling and quantification of dynamic PET data, statisti	Miguel Bajouco (PhD Student, Health Sciences, University of Coimbra)
2019/03 - Current	Neuroinflammation and amyloid- β deposits in Down syndrome - [11C] PK11195, [11C]PiB dynamic positron emission tomography: study design, kinetic modelling and quantification, statistical data analysis.	Lília Jorge (PhD student, Biomedical Engineering, University of Coimbra)
2017/03/01 - 2021/04/01	Scientific and technical introduction to functional magnetic resonance imaging study design and statistical data analysis.	Nuno Madeira (PhD Student, Health Sciences, University of Coimbra)
2019/07/01 - 2019/08/31	Introduction to neuroimaging (EEG, fMRI, fNIRS) data acquisition methods. Introduction to machine learning techniques. Implementation of a machine learning approach using EEG data.	Bruno Santos (Master Student, Biomedical Engineering, University of Coimbra)
2019/07/01 - 2019/08/31	Introduction to neuroimaging (EEG, fMRI, fNIRS) data acquisition methods. Introduction to machine learning techniques. Implementation of a machine learning approach using EEG data.	Sofia Silva (Master Student, Biomedical Engineering, University of Coimbra)
2012/09/01 - 2012/11/30	Multivariate statistical data analysis for robotic grasping and dexterous manipulation based on human demonstrations.	Maria de Fátima Machado (Master Student, Biomedical Engineering, University of Coimbra)
2012/06/01 - 2012/08/31	Scientific introduction to robotic grasp planning. Introduction to GrasPlt simulator and applications in robotics. Integration of multi-modal data acquisition devices.	Hussam Al-Hussein (Master Student, Mechanical Engineering, Khalifa University)

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

2022	CHUC research awards 2022 - best article (translational research) Centro Hospitalar e Universitário de Coimbra EPE, Portugal
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 - Faculty of Sciences and Technology - 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 - Faculty of Sciences and Technology - 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 - Faculty of Sciences and Technology - 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