CV date	10/10/2025

PERSONAL INFORMATION

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Current position

Position	Full Professor (Catedrático)			
Institution	Universidade da Coruña (UDC)			
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Country	Spain		Tel. number	+34881013281
Key words	Autonomous Robotics, Artificial Cognition, Artificial Intelligence			

CV SUMMARY

I am a Full Professor (Catedrático) in the area of Computer Science and Artificial Intelligence at the University of Coruña since 2011 and the Coordinator of the Integrated Group for Engineering Research (Grupo Integrado de Ingeniería: GII. see www.gii.udc.es) at this university since 1999. I have been recognized 6 research periods (sexenia), the last one in 2021. I received a PhD. in Physics from the University of Santiago de Compostela, Spain, in 1992, with work related to novel instrumentation systems in a collaboration with San Diego State University and the University of California San Diego, where I spent almost two years in pre and post-doctoral visits. My research has continued since then in the fields of intelligent measurement systems and autonomous robotics from a neural network perspective, slowly deriving towards cognitive mechanisms for autonomous robots operating in hostile environments and novel perceptual systems, especially in the domain of multidimensional imaging and sensor fusion. In these fields I have been the Principal Investigator of more than 20 publicly funded research projects at the European and national level, in seven of them as the coordinator of interuniversity collaborating teams. I have also been the Principal Investigator of more than 60 contracts with industry and participated in more than 100. I have published more than 100 papers in international journals and attended and presented work in more than 150 international and national scientific conferences. I have published or edited 8 books and 16 book chapters, produced 5 patents (3 international), 35 Software registers, and participated in two Spin-off companies that have resulted from the work of our group.

In terms of international positioning, I am a Senior member of IEEE and INNS (International Neural Network Society). At the INNS I have been elected member of the Board of Governors for the periods 2014-2016 and 2017-19 and from 2020-2022. I have been the INNS Vice president for Conferences and Technical Activities from 2020 to 2022. I have also acted as Chair of the Task Force on Intelligent Measurement Systems of the IEEE Computer Society for two years and have been founding member and Co-Chair of the Spanish Chapter of the IEEE Systems Man and Cybernetics Society. I have been a member of the International Advisory Board of the Knowledge Engineering and Discovery Research Institute (KEDRI) in Auckland, New Zealand and have evaluated Projects for the European Commission, Holland's NWO, Luxemburg's FNR, the Belgian research agency, the Colombian research agency, New Zealand's CORES, Kazakhstan's research agency, South Africa's research agency as well as Spanish agencies, among others. In the last few years, I have acted as a plenary or invited speaker in 8 prestigious international conferences. I have participated in more than 200 technical or program Committees of International conferences and in the organization of 15. I am currently an Associate Editor of Frontiers on Evolutionary Robotics, and have acted as a reviewer of more than 20 other journals (including Information Sciences, IEEE Transactions on Image Processing, IEEE Trans. On Evolutionary Computation, Neural Networks,

Computational Intelligence, Robotics and Autonomous Systems or ACM Computing Surveys Journal).

Part C. SOME RECENT PUBLICATIONS

- A. Romero, G. Baldassarre, R. J. Duro, V. G. Santucci. H-GRAIL: A Robotic Motivational Architecture to Tackle Open-Ended Learning Challenges. Accepted for publication in IEEE Transactions on Cognitive and Developmental Systems, 2025. DOI: 10.1109/TCDS.2025.3569352
- A. Romero, B. Meden, F. Bellas and R. J. Duro; 2023; Using perceptual classes to dream policies in open-ended learning robotics. Integrated Computer-Aided Engineering 30 (2023) 205–222 205 DOI 10.3233/ICA-230707
- F. Bellas, S. Guerreiro-Santalla, M. Naya-Varela, R. J. Duro; 2023. AI Curriculum for European High Schools: An Embedded Intelligence Approach. International Journal of Artificial Intelligence in Education 2023, vol. 33, no 2, p. 399-426. https://doi.org/10.1007/s40593-022-00315-0
- M. Naya-Varela, A. Faina and R.J. Duro; 2023; Engineering morphological development in a robotic bipedal walking problem: An empirical study. Neurocomputing 527 (2023) 83–99. https://doi.org/10.1016/j.neucom.2023.01.003.
- M. Naya-Varela, A. Faina, A. Mallo and R. J. Duro; 2022; A Study of Growth Based Morphological Development in Neural Network Controlled Walkers. Neurocomputing, 500, 279-294. DOI: 10.1016/j.neucom.2021.09.082.
- M. Naya-Varela, A. Faina and R. J. Duro; 2021; Morphological Development in Robotic Learning: A Survey; in IEEE Transactions on Cognitive and Developmental Systems, V13, N4, pp. 750-768, DOI: 10.1109/TCDS.2021.3052548.
- J. A. Becerra, A. Romero, F. Bellas, R. J. Duro; 2021; Motivational engine and long-term memory coupling within a cognitive architecture for lifelong open-ended learning; Neurocomputing, 452, 341-354. DOI: 10.1016/j.neucom.2019.10.124
- A. Romero, F. Bellas, J. A. Becerra, R. J. Duro; 2020; Motivation as a tool for designing lifelong learning robots; Integrated Computer-Aided Engineering, vol. 27, no. 4, pp. 353-372, 2020. IOS Press; DOI: 10.3233/ICA-200633. ISSN: 1069-2509.
- A. Prieto, A. Romero, F. Bellas, R. Salgado and R.J. Duro; 2019; Introducing Separable Utility Regions in a Motivational Engine for Cognitive Developmental Robotics; Integrated Computer-Aided Engineering vol. 26, no. 1, pp. 3-20, IOS Press; DOI: 10.3233/ICA-180578, ISSN: 1069-2509.
- Duro, R. J., Becerra, J. A., Monroy J., Bellas, F.; 2019; Perceptual Generalization and Context in a Network Memory Inspired Long-Term Memory for Artificial Cognition. International Journal of Neural Systems, Vol. 29, No. 06, 1850053: DOI: 10.1142/S0129065718500533, ISSN: 0129-0657.
- Stephane Doncieux, David Filliat, Natalia Díaz-Rodríguez, Timothy Hospedales, Richard Duro, Alexandre Coninx, Diederik M. Roijers, Benoit Girard, Nicolas Perrin, Olivier Sigaud; 2018; Open-ended Learning: A Conceptual Framework based on Representational Re-description; Frontiers in Neurorobotics V.12, pp. 59-67, DOI:10.3389/fnbot.2018.00059, ISSN=1662-5218.