CURRICULUM VITAE (CVA)

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CV date	17/01/2022

Part A. PERSONAL INFORMATION

First name	Ismael		
Family name	García Varea		
Gender (*)	Male	Birth date (dd/mm/yyyy)	19/11/1968
Social Security, Passport, ID number	07545351V		
e-mail	Ismael.garcia@uclm.es	URL Web	
Open Research and Contributor ID (ORCID)(*)		0000-0003-3451-7852	

(*) Mandatory

A.1. Current position

Position	Full Professor		
Initial date	09/11/2020		
Institution	University of Castilla-La Mancha (UCLM)		
Departament/Center	Dpto. Sistemas Informáticos / Esc. Sup. Ingeniería Informática		
Country	Spain	Teleph. number	+34 678425896
Key words	Machine learning, computer vision, mobile robotics, human-robot multimodal interaction		

A.2. Previous positions (research activity interruptions, art. 45.2.c))

Period	Position/Institution/Country/Interruption cause
14/05/2009-08/11/2020	Associate Professor (TU) / UCLM / Spain /--
01/10/2007-13/05/2009	Associate Professor (COD) / UCLM / Spain /--
17/12/1999-30/09/2007	Associate Lecturer/TA (ASO/AYEU) / UCLM / Spain /--

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
Licenciado en Informática	Universitat Politècnica de València	1996
Doctor en Informática	Universitat Politècnica de València	2003

Part B. CV SUMMARY *(max. 5000 characters, including spaces)*

Full Professor at the University of Castilla-La Mancha (UCLM). He obtained the BSc in Computer Science (1991) from UCLM, and the MSc (1996) and the PhD in Computer Science (2003) from the Polytechnic University of Valencia (UPV). He began his scientific career in 1996 with the completion of the MSc thesis entitled "Statistical Machine Translation", within the Pattern Recognition and Human Language Technologies Research Group (PRHLT) of the UPV. The work carried out in the MSc thesis corresponded to one of the tasks within a European project (EuTrans-II), which meant hiring him as a research assistant in that project. Until the end of 1999 he worked on different research projects, publishing regularly at national and international conferences. In parallel, in the 1997/1998 academic year he began his teaching work as an associate professor at the Antonio de Nebrija University. In December 1999, he won a position as Assistant Professor in the Computer Systems Department of the UCLM, going through different teaching positions (lecturer, assistant, associate, full professor).

At the same time, he joined to the Intelligent Systems and Data Mining (SIMD) research group, in which he currently leads the Natural Language Processing and Autonomous Robotics (AR) research lines.
Since then he has directed 6 PhD theses, 2 in the field of NLP (both in collaboration with doctors from the PRHLT group) and 4 in RA, and 2 more in progress, with two FPU fellows. He has also directed more than 45 BSc and MSc theses. He has participated in more than 20 projects as a researcher (led by members of the PRHLT and SIMD groups) and has been IP in two competitive projects at the regional level, and another at the national level.
With regard to quality indicators of scientific production, it should be noted that it has 3 six-year research periods (1999-2004, 2005-2010 and 2011-2016) and one six-year transfer period (2008-2014). His publications have a number of 1329 citations (total), 520 (since 2017) and an h-index of 19 (14 since 2017) according to google scholar. He has published 24 articles indexed in JCR (8 Q1, 9Q2, 4 Q3, 3 Q4). He has won 2 awards for the best article in conferences and a mention. He has published more than 130 research articles (journals, congresses, book chapters, etc.), and has participated in numerous program committees of international congress and as a reviewer in several international journals, and as associate editor of JCR indexed journals.
Currently, his research work focuses on issues of multimodal human-robot interaction in the field of social and service robotics, a line that is being developed within a national and a regional project. In 2020 and 2021 he has been part of the board of directors of the Informatics Europe association. From June 2016 to December 2020 he has been Director of the Higher School of Computer Engineering at UCLM, and since December 2020 he is Vice-rector for Transformation and Digital Strategy at UCLM.

Part C. RELEVANT MERITS *(sorted by typology)*
C.1. Publications (since 2014)

1. C. Romero-González, J. Martínez-Gómez, **I. García-Varea**. 2022. Shape Binary Patterns: An Efficient Local Descriptor and Keypoint Detector for Point Clouds. Multimedia Tools and Applications: 1-25, 2022. DOI: 10.1007/s11042-021-11586-5 [Q2, pos 29/110, IF 2.757]
2. M. Martínez del Horno, **I. García-Varea**, L. Orozco-Barbosa. A smartphone-based multimodal indoor tracking system. 2021. Information Fusion, 1(9): 36-45. DOI: 10.1016/j.inffus.2021.05.001 [Q1, pos 3/139, IF: 12.975]
3. M. Martínez del Horno, **I. García-Varea**, L. Orozco-Barbosa. 2019. Calibration of Wi-Fi-based indoor tracking systems for Android-based smartphones. Remote Sensing, 11(9)-1072: 1-17. DOI: 10.3390/rs11091072 [Q1, pos 7/30, IF: 4.118]
4. J. Lovón-Melgarejo, M. Castillo-Cara, O. Huarcaya-Canal, L. Orozco-Barbosa, **I. García-Varea**. 2019. Comparative Study of Supervised Learning and Metaheuristic Algorithms for the Development of Bluetooth-Based Indoor Localization Mechanisms. IEEE Access, 7: 26. DOI: 10.1109/ACCESS.2019.2899736 [Q1, pos 24/148, IF 3.557]
5. P. Bustos, Luis J. Manso, A.J. Bandera, J.P. Bandera, **I. García-Varea**, J. Martínez-Gómez. 2019. The CORTEX Cognitive Robotics Architecture: use cases. Cognitive Systems Research, 55: 107-123. DOI: 10.1016/j.cogsys.2019.01.003 [Q3, pos 77/132, IF 1.425]
6. J.C. Rangel, M. Cazorla, **I. García-Varea**, C. Romero-González, J. Martínez-Gómez. 2019. Automatic Semantic Maps Generation from Lexical Annotations. Autonomous Robots, 42(3): 697-712. DOI: 10.1007/s10514-018-9723-8 [Q1, pos 33/133, IF 3.364]
7. J.C. Rangel, J. Martínez-Gómez, C. Romero-González, **I. García-Varea**, M. Cazorla. 2018. Semi-supervised 3D Object Recognition through CNN Labeling. Applied Soft Computing, 65: 603-613. DOI: 10.1016/j.asoc.2018.02.005 [Q1, pos 20/133, IF 4.873]

8. M. Castillo-Cara, J. Lovón-Melgarejo, G. Bravo-Rocca, L. Orozco-Barbosa, **I. García-Varea**. 2017. An analysis of multiple criteria and setups for bluetooth smartphone-based Indoor localization mechanism. Journal of Sensors, 2017: 1-12. DOI: 10.1155/2017/1928578 [Q2, pos 25/61, IF 2.057]
9. M. Castillo-Cara, J. Lovón-Melgarejo, G. Bravo-Rocca, L. Orozco-Barbosa, **I. García-Varea**. 2017. An empirical study of the transmission power setting for bluetooth-based indoor localization mechanisms. Sensors, 17(6): núm. 1318: 1-22. DOI: 10.3390/s17061318 [Q2, pos 16/61, IF 2.475]
10. C. Romero-González, J. Martínez-Gómez, **I. García-Varea**, L. Rodríguez-Ruiz. 2017. On robot indoor scene classification based on descriptor quality and efficiency. Expert Systems with Applications, 79: 181-193. DOI: 10.1016/j.eswa.2017.02.040 [Q1, pos 20/132, IF 3.768]
11. J.C. Rangel, J. Martínez-Gómez, **I. García-Varea**, M. Cazorla. 2017. LexToMap: lexical-based topological mapping. Advanced Robotics, 31(5): 268-281. DOI: 10.1080/01691864.2016.1261045 [Q4, pos 22/26, IF 0.961]
12. J.C. Rangel, J. Martínez-Gómez, **I. García-Varea**, M. Cazorla. 2016. Scene classification based on semantic labeling. Advanced Robotics, 30(11-12): 758-769. DOI: 10.1080/01691864.2016.1164621 [Q4, pos 22/26, IF 0.961]
13. J. Martínez-Gómez, M. Martínez del Horno, M. Castillo-Cara, V.M. Brea-Luján, L. Orozco-Barbosa, **I. García-Varea**. 2016. Spatial Statistical Analysis for the Design of Indoor Particle Filter based Localization Mechanisms. International Journal of Distributed Sensor Networks, 12(8): 1-12. DOI: 10.1177/1550147716661953 [Q3, pos 103/146, IF 1.239]
14. C. Romero-González, J. Martínez-Gómez, **I. García-Varea**, Luis Rodríguez-Ruiz. 2016. 3D spatial pyramid: descriptors generation from point clouds for indoor scene classification. Machine Vision and Applications, 27(2): 263-273. DOI: 10.1007/s00138-015-0744-4 [Q2, pos 9/22, IF 2.005]
15. J. Martínez-Gómez, V. Morell, M. Cazorla, **I. García-Varea**. 2016. Semantic Localization in the PCL library. Robots and Autonomous Systems, 75: 641-648. DOI: 10.1016/j.robot.2015.09.006 [Q2, pos 60/133, IF 3.891]
16. J. Martínez-Gómez, M. Cazorla, **I. García-Varea**, V. Morell. 2015. ViDRILO: The visual and depth robot indoor localization with objects information dataset. International Journal of Robotic Research (ISSN: 0278-3649), 34(14): 1681-1687. DOI: 10.1177/0278364915596058 [Q1, pos 2/26, IF 2.489]
17. J. Martínez-Gómez, B. Caputo, M. Cazorla, H.I. Christensen, M. Fornoni, **I. García-Varea**, A. Pronobis. 2015. Where Are We After Five Editions?: Robot Vision Challenge, a Competition that Evaluates Solutions for the Visual Place Classification Problem. IEEE Robotics and Automation Magazine,22(4): 147-156. DOI: 10.1109/MRA.2015.2460931 [Q2, pos 8/25, IF 1.822]
18. J. Martínez-Gómez, A. Fernández-Caballero, **I. García-Varea**, C. Romero-González, L. Rodríguez-Ruiz. 2014. A Taxonomy of Vision Systems for Ground Mobile Robots. International Journal of Advanced Robotic Systems, 11(111): 1-26. DOI: 10.5772/58900 [Q4, pos 20/23, IF 0.536]

C.2. Congress (since 2015)

1. C. Romero-González, J. Martínez-Gómez, I. García-Varea. Lifelong Object Localization in Robotic Applications. 21th International Workshop of Physical Agents, 2020, Spain. Oral pres.
2. C. Romero-González, J. Martínez-Gómez, I. García-Varea. Spoken language understanding for social robotics. 20th IEEE ICARSC, 2020, Portugal. Oral pres.

3. C. Romero-González, J. Martínez-Gómez, I. García-Varea. A Review of Segmentation Methods for 3D Semantic Mapping. ROBOT, 2019, Portugal. Oral pres
4. C. Romero-González, J. Martínez-Gómez, I. García-Varea. 3D Semantic Maps for Scene Segmentation. ROBOT, 2017, Sevilla, Spain. Oral pres.
5. C. Romero-González, D. González-Medina, A. Villena, J. Martínez-Gómez, L. Rodriguez-Ruiz, Ismael García-Varea. InLiDa: A 3D Lidar Dataset for People Detection and Tracking in Indoor Environments. VISAPP, 2017, Portugal. Oral pres.
6. C. Romero-González, J. Martínez-Gómez, I. García-Varea, L. Rodríguez-Ruiz. Binary patterns for shape description in RGBD object registration. IEEE WACV, 2016, NY, USA. Oral pres.
7. J. Martínez-Gómez, M. Cazorla, C. Romero-González, I. García-Varea. Object categorization from RGB-D local features and Bag Of Words, ROBOT, 2015, Portugal. Oral pres.
8. C. Romero-González, J. Martínez-Gómez, I. García-Varea, L. Rodríguez-Ruiz. Keypoint Detection in RGB-D Images using Binary Patterns. ROBOT, 2015, Portugal. Oral pres.
9. J.C. Rangel, M. Cazorla, I. García-Varea, J. Martínez-Gómez, E. Fromont, M. Sebban. Computing Image Descriptors from Annotations Acquired from External Tools. ROBOT, 2015, Portugal. Oral pres.

C.3. Research projects (last 10 years)

1. **PID2019-106758GB-C33**. Aprendizaje automático explicable: una aproximación probabilística. Ministerio de Ciencia e Innovación. IP: José Antonio Gámez Martín y José Miguel Puerta Callejón. Junio 2020 a Junio 2023. 108.900,00 €. Investigador.
2. **SBPLY/17/180501/000493**. Avances en clasificación débilmente supervisada: escalabilidad y aplicaciones en robótica social e imagen digital. Consejería de Educación, Cultura y Deportes, JCCM. IP: José A. Gámez Martín y Luis de la Ossa Jiménez. Octubre 2018 a Octubre 2020. 150.742,00 €. Investigador.
3. **TIN2015-65686-C5-3-R**. Fusión de habilidades conversacionales y de localización semántica para robots sociales a largo plazo en hogares inteligentes. Ministerio de Economía y Competitividad. IP: Ismael García Varea, UCLM. Enero 2016 a Diciembre 2018. 21.700,00 €. Investigador Principal
4. **PPII-2014-015P**. APEDROS: Ayuda a PErsonas con Discapacidad mediante Robots Sociales. Consejería de Ciencia y Tecnología, JCCM. IP: Ismael García Varea, UCLM. Octubre 2014 a diciembre 2016. 138.050,00 €. Investigador Principal.
5. **PBI-0210-7127**. AMSABEL: Acceso multilingüe a sistemas de ayuda y bases de datos en línea. Consejería de Ciencia y Tecnología, JCCM. IP: Ismael García Varea, UCLM. Enero 2008 a diciembre 2010. 90.000,00 €. Investigador Principal.

C.4. Contracts, technological or transfer merits

1. Mantenimiento y mejora de un robot social humanoide. Entidad: UCLM y Universidad de Extremadura. Convenio de colaboración I+D - Art. 83 (Ref. CONV130088). IP: Ismael García Varea, UCLM. Noviembre 2012 a Noviembre 2018.
2. Interconecta ADAPTA: Tecnologías para la personalización y la interacción de contenidos digitales. Entidad: Universidad de Málaga / Indra Software Labs. IP: Antonio Jesús Bandera Rubio. Universidad de Málaga. Enero 2013 a Julio 2014. 300.000,00 €.
3. Desarrollo firmware FPGA comunicaciones entre robot humanoide Nao y placa FPGA. Entidad: INETSIS, S.L. Contrato de I+D - Art. 83 (Ref. UCTR130054). IP: José M. Puerta Callejón, UCLM. Febrero a Marzo 2013. 2.940,00 €.