

CV Date	2025-05-20
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Parte A. PERSONAL INFORMATION

First Name	JOAQUIN BIENVENIDO		
Family Name	ORDIERES MERE		
Sex	Male		
ID number Social Security, Passport	10828972C		
URL Web	https://biba.etsii.upm.es/jom/		
Email Address	j.ordieres@upm.es		
Open Researcher and Contributor ID (ORCID)	0000-0002-9677-6764		

A.1. Current Position

Job Title	Catedrático Universidad		
Starting date	2008-10-17		
Institution	Universidad Politécnica de Madrid		
Department / Centre	INGENIERÍA DE ORGANIZACIÓN, ADMINISTRACIÓN DE EMPRESAS Y ESTADÍSTICA		
Country	Spain	Phone Number	
Keywords	Business Analytics, Artificial Intelligence		

A.4. General KPI of quality and relevance of Scientific Production.

Publications

Agencies

Number of Documents

N Citations

h-index

Q1

D1

IFNA

IFNB

WoS

May 2025

Scopus

May 2025

142

160

7761

8746

28

31

53

76

13

44

1.21

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Cited by

VIEW ALL

All

Since 2020

Citations

14895

9675

h-index

42

36

i10-index

95

70

2018

2019

2020

2021

2022

2023

2024

2025

2000

1500

1000

500

0

Joaquín Ordieres-Meré

PhD. Full Professor · Universidad Politécnica de Madrid at Universidad Politécnica de Madrid

Spain

7,748 Research Interest Score

15,651 Citations

37 h-index

Google Scholar

Researchgate

Parte B. CV Summary

Prof. Joaquín Ordieres-Meré presents a suitable profile for the AIA 2025 call, with over 200 indexed publications and an h-index > 30 evidencing his sustained scientific impact in the field of Artificial Intelligence applied to industrial systems. His leadership in EU-funded projects such as DynReAct, DIGEST, and DeepScheduling. demonstrates proven experience in managing complex, multidisciplinary AI initiatives aligned with the call's focus on real-world applicability and strategic digital transformation.

Based on the attached Google Scholar publication list, he has authored or co-authored approximately 75 publications that are directly related to Artificial Intelligence (AI), out of a total of over 200 indexed works. This proportion, more than 35% of his total scientific output, demonstrates both depth and consistency in applying AI to complex, real-world domains. He belongs to the 2% most cited authors in the AI field. according to the Stanford/Elsevier ranking compiled by by Prof. John P.A. Ioannidis, are based on standardized citation metrics.

His recognized expertise in explainable AI, digital twins, and intelligent operations planning ensures a strong fit with the scientific and technological objectives outlined in the call.

Parte C. RELEVANT ACCOMPLISHMENTS (From 2019 up to now and only related to AI, ML, DL, IoT Agent Technology, QC, Scheduling and Maintenance)

C.1. Most important publications in national or international peer-reviewed journals, books and conferences

1. **Scientific paper.** A Bello-Garcia; VM Passegger; J Ordieres-Mere; A Schweitzer; (2023). Vizier Online Data Catalog: Deep Transfer Learning of Teff and [M/H](Bello-Garcia+, 2023). Vizier Online Data Catalog, 367, J/A+A/673/A105(), -
2. **Scientific paper.** J Villalba-Diez; J Ordieres-Meré; A González-Marcos; AS Larzabal (2022). Quantum Deep Learning for Steel Industry Computer Vision Quality Control.. Ifac-Papersonline, 55 (2), 337-342(), -
3. **Scientific paper.** MJ Neuer; M Loos; F Marchiori; V Colla; S Dettori; J Ordieres; A Wolff (2022). From controlling single processes to the complex automation of process chains by artificially intelligent control systems: The control in steel project. Ifac-Papersonline, 55 (40), 295-300(), -
4. **Scientific paper.** A Bello-García; J Ordieres-Meré; VM Passegger; JA Caballero; (2022). Accurate Teff and [M/H] determinations for the CARMENES M dwarfs from deep transfer learning. Cambridge Workshop On Cool Stars, Stellar Systems, And The Sun, 15(), -
5. **Scientific paper.** Franco-Riquelme, J.N., Tejero, A., Rubalcaba, L. & Ordieres-Meré, J.B. (2024). Measuring the Connection Between Open Innovation, Dynamic Capabilities, and LinkedIn in Tech-Based Companies. Journal Of The Knowledge Economy, (1), -. DOI: <https://doi.org/10.1007/s13132-024-02343-8>
6. **Scientific paper.** Mas-Buitrago, P; Gonzalez-Marcos, A; Solano, E; Passegger, V M; Cortes-Contreras, M; Ordieres-Mere, J; Bello-Garcia, A; Caballero, J A; Schweitzer, A; (2024). Using autoencoders and deep transfer learning to determine the stellar parameters of 286 CARMENES M dwarfs. Astronomy & Astrophysics, 687(), A205-. DOI: 10.1051/0004-6361/202449865
7. **Scientific paper.** Sterkenburgh, TR; Villalba-Diez, J; Ordieres-Meré, J (2023). Socio-Technical Analysis of the Benefits and Barriers to Using a Digital Representation of the Global Horse Population in Equine Veterinary Medicine. Animals, 13(22), 3557-. DOI: 10.3390/ani13223557
8. **Scientific paper.** Ordieres-Meré, J; Gutierrez, M; Villalba-Díez, J (2023). Toward the industry 5.0 paradigm: Increasing value creation through the robust integration of humans and machines. Computers In Industry, 150(), 103947-. DOI: 10.1016/j.compind.2023.103947
9. **Scientific paper.** Bello-García, A; Passegger, VM; Ordieres-Meré, J; Schweitzer, A; Caballero, JA; González-Marcos, A; Ribas, I; Reiniers, A; Quirrenbach, A; Amado, PJ; B (2023). The CARMENES search for exoplanets around M dwarfs: A deep transfer learning method to determine Teffand [M/H] of target stars. Astronomy & Astrophysics, 673(), A105-. DOI: 10.1051/0004-6361/202243934
10. **Scientific paper.** A Bello-Garcia; VM Passegger; J Ordieres-Mere; A Schweitzer; (2023). The CARMENES search for exoplanets around M dwarfs A deep learning approach to determine fundamental parameters of target stars. Astronomy & Astrophysics, 673(), -
11. **Scientific paper.** Passegger, V M; Bello-Garcia, A; Ordieres-Mere, J; Antoniadis-Karnavas, A; Marfil, E; Duque-Arribas, C; Amado, P J; Delgado-Mena, E; Montes, D; Rojas- (2022). Metallicities in M dwarfs: Investigating different determination techniques. Astronomy & Astrophysics, 658(), A194-. DOI: 10.1051/0004-6361/202141920
12. **Scientific paper.** Iannino, Vincenzo; Colla, Valentina; Maddaloni, Alessandro; Brandenburger, Jens; Rajabi, Ahmad; Wolff, Andreas; Ordieres, Joaquin; Gutierrez, Miguel; (2022). A hybrid approach for improving the flexibility of production scheduling in flat steel industry. Integrated Computer-Aided Engineering, 29(4), 367-387. DOI: 10.3233/ICA-220685
13. **Scientific paper.** Liu, Yang; Fei, Hao; Zeng, Qingguo; Li, Bobo; Ma, Lili; Ji, Donghong; Ordieres Mere, Joaquin (2020). Electronic word-of-mouth effects on studio performance leveraging attention-based model. Neural Computing & Applications, 32(23), 17601-17622. DOI: 10.1007/s00521-020-04937-0
14. **Scientific paper.** Ordieres-Mere, J; Ouarzazi, J; El Johra, B; Gong, B (2020). Predicting Ground Level Ozone in Marrakesh by Machine-Learning Techniques. Journal Of Environmental Informatics, 36(2), 93-106. DOI: 10.3808/jei.202000437

- 15. Scientific paper.** Passegger, V M; Bello-Garcia, A; Ordieres-Mere, J; Caballero, J A; Schweitzer, A; Gonzalez-Marcos, A; Ribas, I; Reiners, A; Quirrenbach, A; Amado, P J (2020). The CARMENES search for exoplanets around M dwarfs: A deep learning approach to determine fundamental parameters of target stars. *Astronomy & Astrophysics*, 642(A22), A22-. DOI: 10.1051/0004-6361/202038787
- 16. Scientific paper.** Sun, Shengjing; Zheng, Xiaochen; Villalba-Diez, Javier; Ordieres-Mere, Joaquin (2020). Data Handling in Industry 4.0: Interoperability Based on Distributed Ledger Technology. *Sensors*, 20(11), E3046-. DOI: 10.3390/s20113046
- 17. Scientific paper.** Schmidt, Daniel; Villalba Diez, Javier; Ordieres-Mere, Joaquin; Gevers, Roman; Schwiep, Joerg; Molina, Martin (2020). Industry 4.0 lean shopfloor management characterization using EEG sensors and deep learning. *Sensors*, 20(10), E2860-. DOI: 10.3390/s20102860
- 18. Scientific paper.** Sun, Shengjing; Zheng, Xiaochen; Gong, Bing; Garcia Paredes, Jorge; Ordieres-Mere, Joaquin (2020). Healthy Operator 4.0: A Human Cyber-Physical System Architecture for Smart Workplaces. *Sensors*, 20(7), E2011-. DOI: 10.3390/s20072011
- 19. Scientific paper.** Villalba-Diez, Javier; Molina, Martin; Ordieres-Mere, Joaquin; Sun, Shengjing; Schmidt, Daniel; Wellbrock, Wanja (2020). Geometric deep lean learning: Deep learning in industry 4.0 cyber–physical complex networks. *Sensors*, 20(3), E763-. DOI: 10.3390/s20030763
- 20. Scientific paper.** Sun, Shengjing; Zheng, Xiaochen; Villalba-Diez, Javier; Ordieres-Mere, Joaquin (2019). Indoor Air-Quality Data-Monitoring System: Long-Term Monitoring Benefits. *Sensors*, 19(19), E4157-. DOI: 10.3390/s19194157
- 21. Scientific paper.** Villalba-Diez, Javier; Schmidt, Daniel; Gevers, Roman; Ordieres-Mere, Joaquin; Buchwitz, Martin; Wellbrock, Wanja (2019). Deep Learning for Industrial Computer Vision Quality Control in the Printing Industry 4.0. *Sensors*, 19(18), E3987-. DOI: 10.3390/s19183987
- 22. Scientific paper.** Zheng, Xiaochen; Vieira, Alba; Labrador Marcos, Sergio; Aladro, Yolanda; Ordieres-Mere, Joaquin (2019). Activity-aware essential tremor evaluation using deep learning method based on acceleration data. *Parkinsonism & Related Disorders*, 58(), 17-22. DOI: 10.1016/j.parkreldis.2018.08.001
- 23. Scientific paper.** Espiga-Fernandez, Francisco; Garcia-Sanchez, Alvaro; Ordieres-Mere, Joaquin (2025). gymfolio: A Reinforcement learning environment for Portfolio Optimization in Python. *Softwarex*, 30(), 102106-. DOI: 10.1016/j.softx.2025.102106
- 24. Scientific paper.** Espiga-Fernandez, Francisco; Garcia-Sanchez, Alvaro; Ordieres-Mere, Joaquin (2024). A Systematic Approach to Portfolio Optimization: A Comparative Study of Reinforcement Learning Agents, Market Signals, and Investment Horizons. *Algorithms*, 17(12), 570-. DOI: 10.3390/a17120570
- 25. Scientific paper.** Villalba-Diez, Javier; Gonzalez-Marcos, Ana; Ordieres-Mere, Joaquin (2022). Quantum cyber-physical systems. *Scientific Reports*, 12(1), 7964-. DOI: 10.1038/s41598-022-11691-x
- 26. Scientific paper.** Liu, Yang; Zeng, Qingguo; Li, Bobo; Ma, Lili; Ordieres-Mere, Joaquin (2022). Anticipating financial distress of high-tech startups in the European Union: A machine learning approach for imbalanced samples. *Journal Of Forecasting*, 41(6), 1131-1155. DOI: 10.1002/for.2852
- 27. Scientific paper.** Martin-Avila, Guillermo; Vieira-Campos, Alba; Labrador-Marcos, Sergio; Zheng, Xiaochen; Mendez-Burgos, Alejandro; Thuissard, Israel; Andreu-Vazquez, C (2022). Patients' self-assessment of essential tremor severity by a validated scale: A useful tool in telemedicine?. *Parkinsonism & Related Disorders*, 96(), 22-28. DOI: 10.1016/j.parkreldis.2022.01.021
- 28. Scientific paper.** Sanchez-Herguedas, Antonio; Mena-Nieto, Angel; Rodrigo-Munoz, Francisco; Villalba-Diez, Javier; Ordieres-Mere, Joaquin (2022). Optimisation of Maintenance Policies Based on Right-Censored Failure Data Using a Semi-Markovian Approach. *Sensors*, 22(4), 1432-. DOI: 10.3390/s22041432
- 29. Scientific paper.** Hetemi, Eral; Ordieres, Joaquin; Nuur, Cali (2022). Inter-organisational collaboration and knowledge-work: a contingency framework and evidence from a megaproject in Spain. *Knowledge Management Research & Practice*, 20(4), 641-653. DOI: 10.1080/14778238.2022.2027827
- 30. Artículo.** Villalba-Diez, Javier; Gonzalez-Marcos, Ana; Ordieres-Mere, Joaquin B (2022). Improvement of quantum approximate optimization algorithm for max-cut problems. *Sensors*, 22(1), 244-. DOI: 10.3390/s22010244
- 31. Scientific paper.** Grijalvo Martin, Mercedes; Pacios Alvarez, Antonia; Ordieres-Mere, Joaquin; Villalba-Diez, Javier; Morales-Alonso, Gustavo (2021). New business models from prescriptive maintenance strategies aligned with sustainable development goals. *Sustainability*, 13(1), 1-26. DOI: 10.3390/su13010216
- 32. Scientific paper.** J Villalba-Diez; J Ordieres-Meré (2021). Human-machine integration in processes within industry 4.0 management. *Sensors*, 21 (17), 5928(), -

C3. Research Projects

- 1. Proyecto Competitivo.** Diseño y desarrollo de un nuevo sistema de gestión logística inteligente (Logisight ¿ Operación y mantenimiento inteligente de activos logísticos). , ; PARIS LOREIRO, ANGEL ; PACIOS ALVAREZ,

ANTONIA ; ORTEGA MIER, MIGUEL ANGEL ; ORDIERES MERE, JOAQUIN BIENVENIDO (Investigador principal (IP)). Financiadora: Comunidad de Madrid Programa: CM - RIS3 (2025-01-01 / 2025-12-31). Cuantía: 0.00€.

2. Competitive Project. Ref.:SPID202200X137748CV0. Digitalización como facilitador clave para la gestión técnica de activos. GARCIA-CASTELLANO GERBOLES, CARLOS (Miembro del equipo de trabajo); Villalba NA, Javier (Miembro del equipo de trabajo); ORTEGA MIER, MIGUEL ANGEL (Investigador principal (IP)); Mendonça Tachizawa, Elcio ; GUTIERREZ FERNANDEZ, MIGUEL ; PACIOS ALVAREZ, ANTONIA ; URUBURU COLSA, ANGEL ; ORDIERES MERE, JOAQUIN BIENVENIDO (Investigador principal (IP)); DIAZ VELILLA, JORGE PABLO ; RIOS AGUILAR, SERGIO JOSE ; RODRIGUEZ RIVERO, ROCIO (Miembro del equipo de trabajo); PARIS LOREIRO, ANGEL ; GARCIA GALAN, RAMIRO (Miembro del equipo de trabajo); García Sánchez, Alvaro . Financiadora: Ministerio de Ciencia e Innovación (MICINN), Programa: Plan Estatal 2021-2023 (2023-09-01 / 2027-08-31)

3. Competitive Project. Ref.:101112421. Roll-out refinement of production scheduling through dynamic product routing, considering real-time plant monitoring and optimal reaction strategies. ORDIERES MERE, JOAQUIN BIENVENIDO (Investigador principal (IP)); GUTIERREZ FERNANDEZ, MIGUEL (Investigador principal (IP)); GARCIA GALAN, RAMIRO . Funding: EU (2023-07-01 / 2026-12-31). Cuantía: 143400.00€.

4. Competitive Project. Ref.:101034037. Use of robust deep learning methods for the automatic quality assessment of steel products. GRIJALVO MARTIN, MARIA MERCEDES ; García Sánchez, Alvaro ; PACIOS ALVAREZ, ANTONIA ; GUTIERREZ SANCHIS, RAUL ; ORTEGA MIER, MIGUEL ANGEL ; GUTIERREZ FERNANDEZ, MIGUEL ; Mendonça Tachizawa, Elcio ; MORALES ALONSO, GUSTAVO ; ORDIERES MERE, JOAQUIN BIENVENIDO (Investigador principal (IP)). Funding: EU (2021-07-01 / 2024-12-31). Cuantía: 127902.00€.

5. Competitive Project. Ref.:847203. Refinement of production scheduling through dynamic product routing, considering real-time plant monitoring and optimal reaction strategies. GRIJALVO MARTIN, MARIA MERCEDES ; PACIOS ALVAREZ, ANTONIA ; ORDIERES MERE, JOAQUIN BIENVENIDO (Investigador principal (IP)); García Sánchez, Alvaro ; GUTIERREZ FERNANDEZ, MIGUEL ; MORALES ALONSO, GUSTAVO ; PARIS LOREIRO, ANGEL ; ORTEGA MIER, MIGUEL ANGEL . Funding: EU (2019-06-01 / 2023-05-31). Cuantía: 156600.60€.

6. Competitive Project. Ref.:847202. Automatic surveillance of hot rolling area against intentional attacks and faults. MORALES ALONSO, GUSTAVO ; ORDIERES MERE, JOAQUIN BIENVENIDO (Investigador principal (IP)); GRIJALVO MARTIN, MARIA MERCEDES ; PARIS LOREIRO, ANGEL ; PACIOS ALVAREZ, ANTONIA . Funding: EU (2019-06-01 / 2023-05-31). Cuantía: 128719.44€.

7. Competitive Project. Ref.:793505. 4.0 Lean System integrating workers and processes. SERRANO CALLE, SILVIA ; GRIJALVO MARTIN, MARIA MERCEDES ; MORALES ALONSO, GUSTAVO; ORTEGA MIER, MIGUEL ANGEL; ORDIERES MERE, JOAQUIN BIENVENIDO (Investigador principal (IP)); PACIOS ALVAREZ, ANTONIA; FERNANDEZ-CREHUET SANTOS, JOSE MARIA. Funding: EU (2018-09-01 / 2022-08-31). Cuantía: 147633.00€.

C.6. Advised PhD Thesis

1. PhD Thesis. Ordieres-Mere, Joaquin (Director) ; Villalba-Diez, Javier (Director) Doctorando: Schmidt, Daniel (2022). From data and algorithms to value creation in the Industry 4.0. E.T.S.I. Industriales (UPM)

2. PhD Thesis. ORTIZ MARCOS, ISABEL (Director) ; Ordieres Mere, Joaquin (Director) ; Isabel Ortiz Marcos (Director) Doctorando: Prieto Remón, Tomás (2021). Impact of international organizations digitalization programs on air transport sustainability: The IATA case. E.T.S.I. Industriales (UPM)

3. PhD Thesis. Ordieres Mere, Joaquin (Director) Doctorando: Liu, Yang (2020). Applications of artificial intelligence in behavioral finance getting benefit from extended data sources. E.T.S.I. Industriales (UPM)

4. PhD Thesis. Jerbrant, Anna (Director) ; Ordieres-Mere, Joaquin (Director) Doctorando: Hetemi, Ermal (2020). Path dependence and path shaping unearthing institutional dynamics in large-scale project organizing. E.T.S.I. Industriales (UPM)

5. PhD Thesis. Ordieres Mere, Joaquin (Director) Doctorando: Sun, Shengjing (2020). Digitalization Capacity for Knowledge Acquisition: Learning from Health Monitoring. E.T.S.I. Industriales (UPM)

6. PhD Thesis. Ordieres Mere, Joaquin (Director) ; Bello García, Antonio (Director) Doctorando: Franco Riquelme, Jose N (2020). Quantification strategy in social media: Opinion analysis and indicators development in different contexts. E.T.S.I. Industriales (UPM)

7. PhD Thesis. Ordieres-Mere, Joaquin (Director) Doctorando: Zheng, Xiaochen (2019). Relevant framework for social applications of internet of things by means of machine learning techniques. Universidad Politécnica de Madrid. E.T.S. DE INGENIEROS INDUSTRIALES. INGENIERIA DE ORGANIZACION, ADMINISTRACION DE EMPRESAS Y ESTADISTICA