CURRICULUM VITAE ABREVIADO (CVA)

***IMPORTANT* – The Curriculum Vitae cannot exceed 4 pages. Instructions to fill this document are available in the website.**

Part A. PERSONAL INFORMATION

First name	José María		
Family name	Maestre Torreblanca		
Gender (*)	Male	Birth date (dd/mm/yyyy)	30/06/1982
Social Security, Passport, ID number	75776051K		
e-mail	pepemaestre@us.es	URL Web: jmmaestre.net	
Open Researcher and Contributor ID (ORCID) (*)		0000-0002-4968-6811	

(*) Mandatory

A.1. Current position

Position	Full professor		
Initial date	2/12/2020		
Institution	Universidad de Sevilla		
Department/Center	Systems and Automation Engineering	Higher Technical School of Engineering	
Country	Spain	Teleph. number	652804804
Key words	Predictive Control, Distributed Control, Heterogeneus systems		

A.2. Previous positions

Period	Position/Institution/Country/Interruption cause
2013 – 2020	Associate Professor / University of Seville/ Spain
2011 – 2013	Assisstant Professor / University of Seville / Spain
2011	Postdoc / TU Delft / The Netherlands
2006 – 2010	FPU Grantee / University of Seville / Spain

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
Telecom. Engineer, BSc.+MSc.	Universidad de Sevilla/Spain	2005
Domotics, MSc.	Universidad Politécnica de Madrid/Spain	2006
Telecom. Economics, MSc.	Universidad Nacional de Educación a Distancia/Spain	2010
Automation and Robotics, PhD.	Universidad de Sevilla/Spain	2010
Economics and Development, MSc.	Universidad de Sevilla/Spain	2016
Model-based Drug Development, MSc.	University of Manchester/United Kingdom	2020

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

J.M. Maestre holds a PhD from the University of Seville, where he currently works as a full professor. He has held various positions at universities such as TU Delft, University of Pavia, Tokyo Institute of Technology and University of Kyoto. His research focuses on the control of distributed cyber-physical systems, with a special emphasis on the integration of heterogeneous agents in the control loop. He has published over 200 journal and conference

papers, co-edited several books, and led several research projects. Finally, his achievements have been recognized through several awards and honors, such as becoming the youngest full professor in the Spanish university system in 2020 and receiving the Spanish Royal Academy of Engineering's medal for his contributions to the predictive control of large-scale systems.

For more information, please visit: jmmaestre.net. Also, here you can see some general indicators of the quality of my scientific production:

6-year research periods	**2** (2006 – 2011, 2012-2018)		
H-index	*Web of Science* **25**	*Scopus* **28**	*Google Scholar* **34**
Citations	**2264**	**2836**	**4838**
Supervised thesis	**9**		
Q1-journals	**49**		
International journals	**105**		
International books	**2**	Spanish books	**4**
Chapters in international books	**7**	Chapters in Spanish books	**4**
International conferences	**91**	National conferences	**15**
Principal Investigator R+D projects	**5**		
R+D projects participated	**23**		
National journal publications	**4**	Prizes	**5**

Part C. RELEVANT MERITS *(sorted by typology)*

C.1. Publications *(see instructions)*

Some relevant Q1 publications in the last years

1. A. Sadowska, J. M. **Maestre**, R. Kassking, P. J. van Overloop, & B. De Schutter. (2023). Predictive Control of a Human–in–the–Loop Network System Considering Operator Comfort Requirements. *IEEE Transactions on Systems, Man, and Cybernetics: Systems*.
2. M. Sivianes, J. M. **Maestre**, A. Zafra-Cabeza, & C. Bordons (2023). Blockchain for Energy Trading in Energy Communities Using Stochastic and Distributed Model Predictive Control. *IEEE Transactions on Control Systems Technology*.
3. E. Masero, P. Baldivieso-Monasterios, J. M. **Maestre** & P. Trodden (2023). Robust coalitional model predictive control with plug-and-play capabilities. *Automatica*, *153*, 111053.
4. E. Masero, S. Ruiz-Moreno, J. R. D. Frejo, J. M. **Maestre** & E. F. Camacho (2023). A fast implementation of coalitional model predictive controllers based on machine learning: Application to solar power plants. *Engineering Applications of Artificial Intelligence*, *118*, 105666.
5. F. García-Mañas, F. Rodríguez., M. Berenguel & J. M. **Maestre**. (2023). Multi-Scenario Model Predictive Control for Greenhouse Crop Production Considering Market Price Uncertainty. *IEEE Transactions on Automation Science and Engineering*.
6. E. Masero, J. M. **Maestre**, & E. F. Camacho (2022). Market-based clustering of model predictive controllers for maximizing collected energy by parabolic-trough solar collector fields. Applied Energy, 306, 117936.
7. P. Chanfreut, J. M. **Maestre**, A. Ferramosca, F. J. Muros, & E. F. Camacho. (2021). Distributed model predictive control for tracking: A coalitional clustering approach. *IEEE Transactions on Automatic Control*, *67*(12), 6873-6880.
8. P. Chanfreut, J. M. **Maestre** & E. F. Camacho. (2020). Coalitional model predictive control on freeways traffic networks. *IEEE Transactions on Intelligent Transportation Systems*, *22*(11), 6772-6783.
9. M. I. Fernández, P. Chanfreut, I. Jurado, **J. M. Maestre**. A Data-based Model Predictive Decision Support System for Inventory Management in Hospitals *IEEE Journal of Biomedical and Health Informatics, 2020.*

10. P. Chanfreut, **J. M. Maestre**, E. F. Camacho. Coalitional Model Predictive Control on Freeways Traffic Networks *IEEE Transactions on Intelligent Transportation Systems, 2020.*

C.2. Congress, indicating the modality of their participation (invited conference, oral presentation, poster)

A sample of 10 conference papers presented orally during 2023:

1. Takeda, M., Inoue, M., Fang, X., Minami, Y., & **Maestre**, J. M. (2022). Light Guidance Control of Human Drivers: Driver Modeling, Control System Design, and VR Experiment. *IFAC-PapersOnLine*, *55*(41), 32-37.
2. Masero, E., Baldivieso Monasterios, P., **Maestre**, J. M., Trodden, P., & Camacho, E. F. (2023, March). Tube-based coalitional MPC with plug-and-play features. In *IFAC-PapersOnLine*. Elsevier.
3. Sánchez-Amores, A., **Maestre**, J. M., & Camacho, E. F. (2023). Two-layer Coalitional Model Predictive Control for Parabolic-Trough Collector Fields. *IFAC-PapersOnLine*, *56*(2), 3146-3151.
4. Martin, J. G., Hatanaka, T., **Maestre**, J. M., & Camacho, E. F. (2023). Persistent Coverage in Non-Convex Environments with Heterogeneous Robotic Networks: Constraint-based Approach⋆. *IFAC-PapersOnLine*, *56*(2), 10708-10714.
5. Sivianes, M., Velarde, P., Zafra-Cabeza, A., **Maestre**, J. M., & Bordons, C. (2023). Uncertainty management in peer-to-peer energy trading based on blockchain and distributed model predictive control. *IFAC-PapersOnLine*, *56*(2), 7102-7107.
6. Francisco, M., Masero, E., Morales-Rodelo, K., **Maestre**, J. M., Vega, P., & Revollar, S. (2023). Offset-free distributed predictive control based on fuzzy logic: Application to a real four-tank plant. *IFAC-PapersOnLine*, *56*(2), 3247-3252.
7. Sánchez-Amores, A., Martinez-Piazuelo, J., **Maestre**, J. M., Ocampo-Martinez, C., Camacho, E. F., & Quijano, N. (2023). Population-Dynamics-Assisted Coalitional Model Predictive Control for Parabolic-Trough Solar Plants. *IFAC-PapersOnLine*, *56*(2), 7710-7715.
8. Jiménez, J., Mosquera, E. M., & **Maestre**, J. M. (2023). A simple framework for working with MATLAB and Home I/O. *IFAC-PapersOnLine*, *56*(2), 9588-9593.
9. Pauca, O., Maxim, A., **Maestre**, J. M., & Caruntu, C. F. (2023). Bio-inspired control by overlapping adaptive clusters: a vehicle platoon case study. *IFAC-PapersOnLine*, *56*(2), 1460-1465.
10. Chanfreut, P., Keijzer, T., **Maestre**, J. M., & Ferrari, R. M. G. (2023). A Coalitional MPC Approach to Control of Collaborative Vehicle Platoons. *IFAC-PapersOnLine*, *56*(2), 8518-8523.

C.3. Research projects, indicating your personal contribution. In the case of young researchers, indicate lines of research for which they have been responsible.

Projects as PI

1. Coalitional Control for Cyber-Physical system Optimization, Round 2: Digital Doubles (C3PO-R2D2), project funded by the Spanish Ministry of Economy and Competitiveness (ref. PID2020-119476RB-I00). Duration: 2021-23. Budget: 160k eur.
2. AQUACOLLECT H2020 Enhancement, project funded by the «Proyectos I+D+i FEDER Andalucía 2014-2020» (ref. P-18-HO-4713). Junta de Andalucía. Duration: 2020-2021. Budget: 50k eur.
3. Efficient and safe management of micro-networks for the integration of renewable energies in homes using predictive control techniques, project funded by the «Proyectos I+D+i FEDER Andalucía 2014-2020» (ref. US-1265917). Duration: 2020-2022. Budget: 93k eur.
4. Coalitional Control for Cyber-Physical system Optimization (C3PO), project funded by the Spanish Ministry of Economy and Competitiveness (ref. DPI2017-86918-R). Duration: 2018-2021. Budget: 24k eur.

5. Pharmacontrol: Pharmacontrol, project funded by the Andalusian Government (ref. P12-TIC-2400). In cooperation with: Hospital Reina Sofía de Córdoba, Hospital S. Juan de Dios de Córdoba, Idener. Duration: 2014 – 2016. Budget: 43 k eur.

Other relevant funding as applicant

1. Adapting artificial intelligence in the loop model predictive irrigation control. Visiting Scholars' Fund of State Key Laboratory of Water Resources & Hydropower Engineering Science (Wuhan, China). Duration: 2021-2022. Budget: 18k eur.
2. Cyber Secure Distributed Model Predictive Control Schemes, fellowship funded by the Japanese Society for the Promotion of Science (PE16048). Duration: 2017-2018. Budget: 50k eur.

Other participations as reserarcher in relevant projects

1. Digital intelligence for collaborative ENergy management in Manufacturing. H2020. Duration: 2020-2024. Budget US: 500k eur. PI: Juan Manuel Escaño.
2. OCONTSOLAR. European Research Council. Duration: 2018 - 2023. Budget US: 2.5M eur. PI US: Eduardo Fernández Camacho.
3. Dynamic Management of Physically Coupled Systems of Systems (DYMASOS), funded by EU VII Framework Program (ref. FP7-ICT-ICT-2013.3.4-611281). Duration: 2013-2016. PI US: Budget: 321k eur.
4. Highly-Complex and networked control systems (HYCON 2). VII UE Framework Program. Duration: 2010 – 2014. Budget US: 200k eur. PI: E. F. Camacho.
5. Hierarchical and distributed control of large-scale systems (HD-MPC). VII UE Framework Program. Duration: 2008 – 2011. Budget US: 230k eur. PI: M. A. Ridao.

C.4. Contracts, technological or transfer merits, Include patents and other industrial or intellectual property activities (contracts, licenses, agreements, etc.) in which you have collaborated. Indicate: a) the order of signature of authors; b) reference; c) title; d) priority countries; e) date; f) Entity and companies that exploit the patent or similar information, if any

1. Smart cooking device Eskesso, funded by the EU program FIware, in cooperation with the firms UEG Mobile y Domonova. Budget: 100k.

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