CURRICULUM VITAE (CVA)

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

CV date	1/4/2023

Part A. PERSONAL INFORMATION

First name	Miguel Ángel		
Family name	Ridao Carlini		
Gender (*)		Birth date (dd/mm/yyyy)	
Social Security, Passport, ID number			
e-mail		URL Web	
Open Research and Contributor ID (ORCID)(*)		0000-0002-0565-2759	

(*) Mandatory

A.1. Current position

Position	Full Professor		
Initial date	22/11/2018		
Institution	Universidad de Sevilla		
Departament/Center	Dpto. Ingeniería de Sistemas y Automática		
Country	Spain	Teleph. number	
Key words			

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

Period	Position/Institution/Country/Interruption cause
1997-2018	Profesor Titula de Universidad / Universidad de Sevilla

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
Ingeniero Industrial	Universidad de Sevilla	1989
Doctor Ingeniero Industrial	Universidad de Sevilla	1995

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

Miguel Ángel Ridao Carlini is an Industrial Engineer and PhD in Electrical Engineering from University of Seville. He is currently a Full Professor in the Systems Engineering and Automation Department at the University of Seville.

His research work is mainly developed in the field of advanced control systems, specifically in Model Predictive Control, autonomous vehicles, modelling and simulation of systems and applications of risk management to the control and planning of processes. In relation to publications, he is co-author of 24 articles in indexed scientific journals, 17 of them in T1, and contributions in the most important international congresses in the field of Control, such as the Triannual World Congress of the International Control Federation Automatic and IEEE Conference on Decision and Control.

He has been evaluated positively in 5 “sexenios” (4 “Investigación” and 1 “Transferencia del Conocimiento”).

He has participated in more than 50 research projects, including projects funded by the European Commission in different framework programs, competitive projects with national and regional public funding and projects financed by private companies. In the last 10 years he has been Coordinator or Principal Investigator in competitive european and national projects. He is currently Coordinator of the International AGERAR Project funded within the INTERREG POCTEP and Principal Investigator of the International IUFCV Project funded by the NATO SPSP programme. He has also been Principal Investigator of a European Project funded by the Seventh Framework Program of the European Union (HD-MPC Project). It is also Principal Investigator of CONFIGURA and COOPERA Projects funded by the Spanish government. He has also been Principal Investigator of the Hercules Project (Program of Scientific and Technological Projects of a strategic nature of the National Energy Program) of the Spanish Ministry of Education and Science and of the SolH2 Project, in the subprogram INNPACTO.

He is co-author of the book “Model Predictive Control of Microgrids” published in 2020 by Springer and author of the book "Introduction to the Programming of Programmable Automata using CoDeSys", published in 2016 by the “Editorial Universidad de Sevilla”

He has held various academic positions in the University of Sevilla: Head of the Department of Systems Engineering and Automation of the University of Seville (2008-2011), Secretary of the same Department (1999-2003) and Coordinator of the Master of Automation, Robotics and Telematics of the University of Seville from 2011 to 2016

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

C.1. Publications *(see instructions)*

Books

- Miguel Ángel Ridao. Introducción a la Programación de Autómatas Programables usando Codesys. Editorial Universidad de Sevilla. 2016.
- Carlos Bordons, Félix García –Torres and Miguel A. Ridao. Model Predictive Control in Mirogrids. Springer. 2020.

Journals

- Albea Sánchez, Carolina, Bordons Alba, Carlos, Ridao Carlini, Miguel Angel: Robust Hybrid Control for Demand Side Management in Islanded Microgrids. En: IEEE Transactions on Smart Grid. 2021. 10.1109/Tsg.2021.3101875
- Márquez , Juan José, Zafra Cabeza, Ascensión, Bordons Alba, Carlos, Ridao Carlini, Miguel Angel:A fault detection and reconfiguration approach for MPC-based energy management in an experimental microgrid. En: Control Engineering Practice. 2021. Vol. 107. https://doi.org/10.1016/j.conengprac.2020.104695
- Báez, Pablo, García , Félix, Ridao Carlini, Miguel Angel, Bordons Alba, Carlos: A Stochastic MPC Based Energy Management System for Simultaneous Participation in Continuous and Discrete Prosumer-to-Prosumer Energy Markets. En: Energies. 2020. Vol. 13. Núm. 14. Pag. 37-51. https://doi.org/10.3390/en13143751
- C. Bordons , F. Garcia-Torres and M. A. Ridao. Control predictivo en microrredes interconectadas y con vehículos eléctricosRevista Iberoamericana de Automática e Informática industrial. Vol. 17, núm 3, 2020.

- F. Garcia-Torres, C. Bordons y M. A. Ridao. Optimal Economic Schedule for a Network of Microgrids with Hybrid Energy Storage System using Distributed Model Predictive Control. IEEE Transactions on Industrial Electronics. Vol. 66.nº 3, 2019.
- F. Garcia-Torres, D. G. Vilaplana, C. Bordons, P. Roncero-Sanchez y M. A. Ridao. Optimal Management of Microgrids with External Agents including Battery/Fuel Cell Electric Vehicles. IEEE Transactions on Smart Grid. doi: 10.1109/TSG.2018.2856524. 2018.
- E. Lopez, J. Saenz, F. Vivas, F. Isorna, M.A. Ridao, C. Bordons. Experimental evaluation of a passive fuel cell/battery hybrid power system for an unmanned ground vehicle. International Journal of Hydrogen Energy. 2019.
- A. Núñez-Reyes, D. Marcos, C. Bordons y Miguel A. Ridao. Optimal schedilling of grid connectet PV plants with energy storage for integration in the electricity market. Solar Energy. Vol. 144, pp 502-516. 2017.
- P. Báez, A. del Real, Miguel A. Ridao y C. Bordons. Day-ahead economic optimization of energy use in an olive mill. Control Engineering Practice. Vol54. pp 91-103. 2016.
- J. M. Maestre, M. A. Ridao, A. Kozma, C. Savorgnan, M. Diehl, M. D. Doan, A. Sadowska et al. A comparison of distributed MPC schemes on a hydro-power plant benchmark. Optimal Control Applications and Methods. Volume 36, Issue 3, pages 306–332, May/June 2015
- I. Alvarado, D. Limón , D. Muñoz de la Peña, J.M. Maestre, M. A. Ridao , et. al.. A Comparative Analysis of Distributed MPC Techniques Applied to the Hd-MPC Four-Tank Benchmark. Journal of Process Control. Vol. 21. Núm. 5. 2011.
- A. Zafra-Cabeza, J.M. Maestre, M.A. Ridao , E.F. Camacho, L. Sanchez. A Hierarchical Distributed Model Predictive Control Approach to Irrigation Canals: a Risk Mitigation Perspective. Journal of Process Control. Vol. 21. Núm. 5. 2011.

C.2. Congress

C.3. Research projects

Title: Almacenamiento y Gestión de Energías Renovables en Aplicaciones Comerciales y Residenciales - AGERAR
Funding: Interreg POCTEP
From 01/07/2017 to 31/12/2019
Principal Investigator: Miguel Ángel Ridao Carlini

Title: Improving efficiency and operational range in unmanned vehicles using fuel cells (SFPP-985079)
Funding: NATO. Science for Peace and security Programme
From 01/09/2016 to 31/12/2019
Partners: Universidad de Sevilla, INTA y CSIRO (Australia)
Principal Investigator: Miguel Ángel Ridao Carlini

Title: Control Predictivo de Microrredes Recongurables con Almacenamiento Híbrido y Móvil (CONFIGURA) (DPI2016-78338-R)
Funding: Spanish Ministerio de Economía y Competitividad
Partners: Universidad de Sevilla.
From 01/01/2017 to 31/12/2019
Principal Investigator: Carlos Bordons Alba/Miguel Ángel Ridao

Título: Control Predictivo de Sistemas Energéticos Distribuidos con Fuentes Renovables y Almacenamiento Estacionario y Móvil (COOPERA). Nº Proyecto: DPI2013-46912-C2-1-R.
Funding: Spanish Ministerio de Economía y Competitividad
From 01/10/2014 to 31/12/2016

Principal Investigator: Carlos Bordons Alba/ Miguel Ángel Ridao Carlini

Title: Digital Intelligence for collaborative for Energy managemente in Manufacturing (DENIM)
Funding: European Comision. Horozon 2020
From: 1/11/2020 to 31/10/2024
Principal Investigator: Carlos Bordons Alba/ Juan Manuel Escaño González

Title: Transporte Turístico Urbano Eléctrico Sostenible (T2UES)
Funding: Interreg POCTEP
From 01/01/2018 to 5/4/2022
Principal Investigator: Carlos Bordons Alba

Título: Dynamic Management of Physically Coupled Systems of Systems (DYMASOS). Nº Proyecto: 1154/UE.
Funding: VII Framework Promgramme. European Comision
From 01/10/2013 to 30/06/2016
Principal Investigator:Eduardo Fernández Camacho

Título: Hierarchical and Distributed Model Predictive Control of Large-Scale Systems. (HD-MPC 223854)
Entidad financiadora: VII Framework Promgramme. European Comision.
Partner: Universidad de Sevilla and other 7 universities and companies.
From 01/09/2008 to 31/08/2011
Principal Investigator: M.A. Ridao

C.4. Contracts, technological or transfer merits

Contract
Título: Smart Retail OmnichannelIUX
Funding: Tier1 S.L.
Partners: AICIA-Universidad de Sevilla
From 01/09/2014 to 31/12/2016
Principal Investigator: Miguel Ángel Ridao Carlini
Number of researches: 5

Título: Control predictivo de plantas fotovoltaicas con almacenamiento (PV SINCRONA).
Funding: Abengoa Solar.
Partners: AICIA-Universidad de Sevilla
From 01/03/2014 to 28/02/2016
Principal Investigator: Carlos Bordons Alba
Number of researches: 6

Patents
Miguel Ángel Ridao, Carlos Bordóns, Eduardo Fernández, Gonzalo Hernández, Francisco Jevier Rubio y José Luis Cordero.
Nº Solicitud: P201630307.
Título: Euipo Robotizado para la Localización de Artículos en una Tienda y su Procedimiento de Funciomaniento.
Solicitante: 50% Tier1 Technology S.L., 50% Universidad de Sevilla.
Fecha de Solicitud: 15/372016