Part A. PERSONAL INFORMATION

		CV date	22/11/2021

First and Family name	MANUEL AGUSTIN ORTIZ LOPEZ		
Social Security, Passport, ID number	24199639M	Age	57
Researcher codes	Open Researcher and Contributor ID (ORCID**)	0000-0001-8312-1729	
	SCOPUS Author ID (*)	26649107600	
	WoS Researcher ID (*)	G-2537-2016	

(*) Optional
(**) Mandatory

A.1. Current position

Name of University/Institution	University of Cordoba		
Department	Dept. of Electronic and Computers Engineering		
Address and Country	Leonardo da Vinci Bldg., Office LV6P160 - Rabanales Campus ES-14071 - Cordoba (Spain)		
Phone number	957218376	E-mail	el1orlom@uco.es
Current position	Professor	From	22/01/1996
Key words	Computer Architecture, Digital System, Embedded Systems, FPGA, Communication Systems and Networks		

A.2. Education

PhD, Licensed, Graduate	University	Year
PhD (Doctorado en Ingeniería y Tecnologías)	Córdoba	2013
Licensed (Physics Electronics)	Granada	1987

A.3. General indicators of quality of scientific production *(see instructions)*

– One six-year research periods successfully evaluated by the National Committee for the Evaluation of Research Activities (CNEAI) of the Spanish Ministry of Education, Culture and Sports (2010-2016).
– Three Doctoral Theses currently inscribed.
– Citations and indexes

	Scopus	WoS
Total Citations	154	124
h index	6	6

– Impact index publications in first quartile: 3
– Impact index publications in second quartile: 3
– Impact index publications in third quartile: 2
– Impact index publications in fourth quartile: 3

Part B. CV SUMMARY *(max. 3500 characters, including spaces)*

Manuel Ortiz is Associate Professor at the Dept. of Electronics and Computers Engineering, University of Córdoba (Spain) since 1996. Received his M.Sc. in Physics Electronics, University of Granada, Spain, in 1987 and his PhD. Degree in the University of Cordoba in 2013. Since 1987 till 1996 he worked in the R&D department of Fujitsu, in the R&D of TECOSA (a Siemens group company) and for the department of Computer Communications&Networks in Telefonica.

His research work is related to the development of low power embedded systems for use in sensor networks, the implementation of redundant arithmetic in FPGAs and HW/SW codesing. He has authored or co-authored several monographs, technical papers and

articles covering topics on embedded system and wired and Wireless networks applied to communications for energy management systems and applications.

He has been General Chair of 26th Intl. Annual Seminar on Automation, Industrial Electronics and Instrumentation (Seminario Anual de Automática, Electrónica Industrial e Instrumentación -SAAEI 2019).

Since June 2017 he is the Head of the Department of Electronics and Computer Engineering in the University of Cordoba.

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

C.1. Publications *(see instructions)*

1. <u>**Scientific paper.**</u> F. J. Quiles-Latorre, A. Gersnoviez, M. Ortiz-López, F. J. Jiménez-Álvarez, F. J. Montoro-García and M. Brox, "Active Electronic Egg for Breeding of Endangered Birds," in *IEEE Sensors Journal*, vol. 21, no. 22, pp. 26086-26103, 15 Nov.15, 2021, doi: 10.1109/JSEN.2021.3114639.

2. <u>**Scientific paper.**</u> Ibarra-Delgado, S.; Sandoval-Arechiga, R.; Gómez-Rodríguez, J.R.; Ortíz-López, M.; Brox, M. A Bandwidth Control Arbitration for SoC Interconnections Performing Applications With Task Dependencies. Micromachines 2020, 11, 1063. (JCR, Q2).

3. <u>**Scientific paper.**</u> Ordaz-García, O.O.; Ortiz-López, M.; Quiles-Latorre, F.J.; Arceo-Olague, J.G.; Solís-Robles, R.; Bellido-Outeiriño, F.J. DALI Bridge FPGA-Based Implementation in a Wireless Sensor Node for IoT Street Lighting Applications. Electronics 2020, 9, 1803. (JCR, Q3).

4. <u>**Scientific paper.**</u> S. Ibarra-Delgado, R. Sandoval-Arechiga, M. Brox and O. -L. Ortiz-Lopez, "Throughput Unfairness in Fair Arbitration Interconnection-Buses for Aerospace Embedded Systems," in IEEE Latin America Transactions, vol. 18, no. 09, pp. 1606-1613, September 2020, doi: 10.1109/TLA.2020.9381803.(JCR, Q4)

5. <u>**Scientific paper**</u>. Flores-Arias, J.-M.; Ortiz-Lopez, M.; Quiles Latorre, F.J.; Bellido-Outeiriño, F.J.; Moreno-Muñoz, A. A Memory-Efficient True-RMS Estimator in a Limited-Resources Hardware. Energies 2019, 12, 1699. (JCR, Q3).

6. <u>**Scientific paper**</u>. Flores, J. M., Gil-Lebrero, S., Gámiz, V., Rodríguez, M. I., Ortiz, M. A., & Quiles, F. J. (2019). Effect of the climate change on honey bee colonies in a temperate Mediterranean zone assessed through remote hive weight monitoring system in conjunction with exhaustive colonies assessment. Science of The Total Environment, 653, 1111–1119. (JCR, Q1).

7. <u>**Scientific paper**</u>. Garrido-Zafra, J., Moreno-Munoz, A., Gil-De-Castro, A., Ortiz-López, M. A., & Morales, T. (2018). Supraharmonics reduction in LED drivers via random pulse-position modulation. International Journal of Electronics, 105(12), 2128-2143. (JCR, Q4).

8. <u>**Scientific paper**</u>. Gil-lebrero, Sergio; Quiles-Latorre, Francisco Javier; Ortiz-Lopez, Manuel Agustin; Sánchez, Víctor; Gámiz-lópez, Victoria; Luna-Rodríguez, Juan Jesús. 2016. Honey Bee Colonies Remote Monitoring System. Sensors. 17: 1-21. (JCR, Q1).

9. <u>**Scientific paper**</u>. Bellido-Outeiriño, Francisco José; Quiles-Latorre, Francisco Javier; Moreno-Moreno, Carlos Diego; Flores-Arias, José María; Moreno-García, Isabel María; Ortiz-Lopez, Manuel Agustin. 2016. Streetlight Control System Based on Wireless Communication over DALI Protocol. Sensors. 16. (JCR, Q1).

10. <u>**Scientific paper**</u>. Quiles-Latorre, Francisco Javier; Ortiz-Lopez, Manuel Agustin; Gersnoviez-Milla, Andres Alejandro; Brox-Jiménez, María; Olivares-Vicente, Alberto. 2015.

Development of a Wireless Low Power Datalogger with High Performance Converter. Elektronika Ir Elektrotechnika. 21: 21-27. (JCR, Q4).

11. **<u>Scientific paper</u>**. Ortiz-Lopez, Manuel Agustin. 2015. Implementation of an electronic system to monitor the thermoregulatory capacity of honeybee colonies in hives with open-screened bottom boards. Computers and Electronics in Agriculture. 116: 209-216. (JCR, Q2).

C.2. Research projects

1. Seguimiento de colonias de abejas (Apis mellifera L) en condiciones de campo para la evaluación de residuos de acaricidas en las colmenas. RTA 2017-00058-C04-04. Ámbito Nacional. MINECO-INIA. Proyectos de investigación fundamental orientada y acciones complementarias dentro del programa estatal de i+d+i orientada a los retos de la sociedad (reto de seguridad y calidad alimentaria, actividad agraria productiva y sostenible, sostenibilidad de los recursos naturales e investigación marina y marítima), en el marco del plan estatal de investigación científica y técnica y de innovación 2013-2016. Programa 2017. Responsable: Jose Manuel Flores Serrano. Fecha inicio: 1/1/2018. Fecha fin: 31/12/2020. 67.321,00 EUR.

2. Control y Gestión de Nanorredes Aislables Sistema de Gestión de Electrodomésticos Inteligentes, TEC2016-77632-C3-2-R. Ámbito Nacional. MINECO: Plan Estatal 2013-2016 de Investigación Científica y Técnica y de Innovación. Programa Estatal de Investigación, Desarrollo e Innovación Orientada a los Retos de la Sociedad. Proyectos I+D+i. Convocatoria 2016. Ministerio de Economía, Industria y Competitividad. Responsables: Bellido-Outeiriño, Francisco José; Moreno-Muñoz, Antonio. Fecha inicio: 30/12/2016. Fecha fin: 29/12/2019. 93775.00 EUR.

3. Estudio de la dinámica poblacional en colonias de abejas en relación con su estado sanitario y la influencia de las condiciones climáticas. Implicaciones en el síndrome de despoblamiento de las colmenas. Instituto nacional de investigación y tecnología agraria y alimentaria (INIA). 2014-2019. 79856,64 EUR.

4. Integración de Tecnologías para Telegestión de los Sistemas de Iluminación Pública (IT2SIP). Agencia de Obra Pública de la Junta de Andalucía. Bellido-Outeiriño, Francisco José (Universidad de Córdoba). 2013-2014. 373.107,62 EUR.

5. Sistema cognitivo para robots móviles en entornos dinámicos mediante percepción multimodal. Junta de Andalucía. Ferruz-Melero, Joaquín (Universidad de Sevilla). 2011-2014. 129250 EUR.

6. Sistema automático de adquisición de habilidades cognitivas en entornos dinámicos mediante percepción multimodal. Ferruz-Melero, Joaquín (Universidad de Sevilla). 2010-2013. 46000 EUR.

C.3. Contracts, technological or transfer merits

1. Desarrollo de un banco de monitorización de bus CAN (Rothercan). Flores-Arias, José María (Universidad de Córdoba). 2014-2015. 6002,35 EUR.

2. Diseño del hardware de un sistema de control inalámbrico compatible con el sistema Arduino. Ortiz-Lopez, Manuel Agustin (Universidad de Córdoba). 2013-2013. 6806 EUR.