CURRICULUM VITAE

CV date	21/09/2018

Part A. PERSONAL INFORMATION

First and Family name	Luis Esteban Hernández	
Researcher numbers	Researcher ID	H-6140-2015
	Orcid code	0000-0002-8090-0329

A.1. Current position

Name of University/Institution	Universidad Antonio Nebrija		
Department	ARIES Research Center		
Address and Country	Calle Pirineos 55		
Phone number	914521100	E-mail	lesteban@nebrija.es
Current position	Assistant Professor	From	
Espec. cód. UNESCO	330408, 330703		
Palabras clave	Space, FPGA, microelectronics, radiation hardened		

A.2. Education

PhD	University	Year
PhD in Electronics	Universidad Politécnica de Madrid	2011

A.3. JCR articles, h Index, thesis supervised

Number of JCRs: 11, six of them in Quartile 1 and 3 of them in Quartile 2
h Índex: 6.
Average cites/year: 11.
Total cites: 183.

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

Received the Ph.D. in Electronics from Universidad Politécnica de Madrid in 2011, the M.Sc. in Electronics Engineering from Universidad Complutense de Madrid, Spain in 2005 and the B.Sc. degree in Electronics Engineering from Universidad de Zaragoza, Spain in 2003. He currently works in Universidad Antonio Nebrija and in the past he has worked as a lecturer and researcher at several universities and research centers, such as the University of Liverpool (UK), the University of California at Berkeley (USA), Universidad Politécnica de Madrid (Spain), Ciemat (Spain) and CSIC (Spain). He has designed FPGA and ASIC based systems for aerospace, radio astronomy and scientific applications for JPL-NASA, CERN, Max Planck Institute and CIEMAT. His current research interests are related to the fault-tolerance implementation of Digital Signal Processing algorithms in FPGAs and ASICs for scientific and space applications.

Part C. RELEVANT MERITS

C.1. Publications (including books)

Journal Cited Reports (JCR):

1) A. Regadio, S Sánchez-Prieto and L Esteban. Filtering of pulses from particle detectors using neural networks by dimensionality reduction. Nuclear Instruments and Methods in Physics Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment. 942, 2019.

2) A. Regadio, S Sánchez-Prieto and L Esteban. Filtering of pulses from particle detectors by means of Singular Value Decomposition (SVD). Nuclear Instruments and Methods in Physics

Research Section A: Accelerators, Spectrometers, Detectors and Associated Equipment. 922 (257-264), 2019.

3) L. Esteban, J. A. López, E. Sedano, S. Hernández-Montero, M. Sánchez. Quantization Analysis of the Infrared Interferometer of the TJ-II Stellarator for its Optimized FPGA-Based Implementation. IEEE Transactions on Nuclear Science, 60(2): 3592 - 3596, 2013.

4) S. Hernández-Montero, J. A. López, M. Sánchez, L. Esteban, C. A. López. Real Time FPGA-Based Crosstalk Elimination for Multichannel Interferometry Systems in Fusion Diagnostics. IEEE Transactions on Nuclear Science, 60(5): 3585 - 3591, 2013.

5) J. Sánchez, L. Esteban, B. Zurro. Overview of TJ-II experiments. Nuclear Fusion 51 (2011) 094022.

6) L. Esteban, M. Sánchez, J. A. López, P. Kornejew, M. Hirsch, O. Nieto-Taladriz. Development of Efficient FPGA Based Phase Meters for IR-Interferometers. IEEE Transactions on Nuclear Science, 58(4): 1562 – 1569, 2010.

7) L. Esteban, M. Sánchez, J. Sánchez, P. Kornejew, M. Hirsch, J. A. López, A. Fernández, O. Nieto-Taladriz. Continuous Phase Measurement in the W7-X Infrared Interferometer by Means of an FPGA and High Speed ADCs. Fusion Science and Technology, 58(3):771-777, 2010.

8) L. Esteban, M. Sánchez, J.A. López, O. Nieto-Taladriz, J. Sánchez. Continuous Plasma Density Measurement in TJ-II Infrared Interferometer-Advanced Signal Processing Based on FPGAs. Fusion Engineering and Design, 85(3-4):328-331, 2010.

9) P. Pedreira, L. Esteban, R. Criado, P. Acedo, M. Sánchez. First Results from the Two Color Multichannel Heterodyne Interferometer for High Spatial Resolution Electron Density Profile Measurements in TJ-II. Review of Scientific Instruments, 81(10):10D517, 2010.

10) J. Sánchez, L. Esteban, B. Zurro, Confinement transitions in TJ-II under Li-coated wall conditions. Nuclear Fusion 49 (2009) 104018.

C.2. Research projects and grants

1) Project Title: ADSPRA: Advanced Signal Processing for Radio-Astronomy Applications.

Funding: European Union, EU-FP7-PEOPLE-CORDIS Date: 2013-2015

Reference: EU-FP7-PEOPLE-2011-IOF-302453

2) Project Title: Development of an expanded beam multichannel interferometer for plasma density measurements in the TJ-II stellarator.

Funding: Plan Nacional. Date: 2008-2011

Reference: ENE2006-13557-FTN

3) Project Title: Participación del Ciemat en la consolicación y actualización del detector CMS en el LHC.

Funding: Plan Nacional Date: 2014-2017

Reference: FPA2014-53938-C3-1-R

C.3. Contracts

C.4. Patents

C.5, C.6, C.7… (e. g., Institutional responsibilities, memberships of scientific societies…)

Awards

Marie Curie International Outgoing Fellowship. European Union (2012).

European PhD. Universidad Politécnica de Madrid (2011).

Institute of Electrical and Electronics Engineers IEEE. Best Paper Award. Real Time Conference. Lisboa, Portugal (2010).

Beca Formación de Personal Investigador. Ministerio de Educación y Ciencia. Gobierno de España (2007).

Technical Reviewer

Reviewer for MDPI: Sensors journal.

Reviewer for Hindawi: Advances in Digital Signal Processing.

Reviewer for Elsevier Fusion Engineering and Design.

Reviewer for Elsevier Signal Processing: Image Communication.

Reviewer for AIP Fusion Science and Technology.

Member of the Technical Committee: IEEE International Symposium on Defect and FaultTolerance in VLSI and Nanotechnology Systems, DFT 2018.

Conferences

L. Esteban, R. Hochman, B. Richards, D. Werthimer and B. Nikolic. Single Planetary Low Power ASIC Spectrometer with High Resolution. Berkeley Wireless Research Center Summer Retreat, 2014.

L. Esteban, R. Hochman, B. Richards, D. Werthimer and B. Nikolic. Single Planetary Low Power ASIC Spectrometer with High Resolution. CASPER workshop, 2014.

L. Esteban, J. A. López, E. Sedano. S. Hernández-Montero and M. Sánchez. Quantization analysis of the infrared interferometer of the TJ-II for its optimized FPGA-based implementation. Real Time Conference (RT), 2012 18th IEEE-NPSS. ISBN: 978-1-4673-1082-6.

S. Hernández-Montero, J. A. López, M. Sánchez and L. Esteban. Real time FPGA-based crosstalk elimination for multichannel interferometry systems in fusion diagnostics. Real Time Conference (RT), 2012 18th IEEE-NPSS. ISBN: 978-1-4673-1082-6.

L. Esteban, M. Sánchez, J. A. López, O. Nieto-Taladriz, P. Pedreira and P. Acedo. Development of efficient FPGA-based phase meters for IR-interferometers. Optimizations for multi-channel interferometers. Real Time Conference (RT), 2010 17th IEEE-NPSS. ISBN: 978-1-4244-7108-9.

L. Esteban, M. Sánchez, J. Sánchez, P. Kornejew, M. Hirsch, H. Hartfuss, J. A. López, A. Fernández and O. Nieto-Taladriz. Online Phase Measurements in the W7-X IR-interferometer Using an FPGA. 6th Workshop on Fusion Data Processing, Validation and Analysis. 2010.

L. Esteban, M. Sánchez, J. A. López and O. Nieto-Taladriz, J. Sánchez. Continuous Plasma Density Measurement in TJ-II Infrared interferometer by the use of an FPGA Based Processing System. 7th IAEA Technical Meeting on Control, Data Acquisition, and Remote Participation for Fusion Research. 2009.