Part A. PERSONAL INFORMATION

		CV date	28/07/2021

First and Family name	Juan Fernando (Ferran) Martín Antolín		
Social Security, Passport, ID number		Age	
Researcher codes	Open Researcher and Contributor ID (ORCID**)		
	SCOPUS Author ID (*)		
	WoS Researcher ID (*)		

(*) Optional
(**) Mandatory

A.1. Current position

Name of University/Institution	Universitat Autònoma de Barcelona		
Department	Dpto. de Ingeniería Electrónica		
Address and Country	Escola d'Enginyeria (Edifici Q), C/ de les Sitges, Campus UAB, 08193 Bellaterra (BARCELONA)		
Phone number		E-mail	
Current position	Full Professor	From	01/01/2007
Key words	Microwaves, metamaterials, electronics, electromagnetism, microwave engineering, microwave sensors, RFID		

A.2. Education

PhD, Licensed, Graduate	University	Year
PhD in Physics	Universitat Autònoma de Barcelona	1992
B.S. Degree in Physics	Universitat Autònoma de Barcelona	1988

A.3. Career breaks*

Date	Reason	Duration (months)

* if applicable

A.4. General indicators of quality of scientific production

- Sexennial research periods: **5** (last conceded: 17/07/2020)
- Sexennial Transference periods: **1** (last conceded: 16/12/2019)
- PhD Theses supervised (<u>since 2011</u>): **13** (**7 Extraordinary Doctorate Awards**)
- Total citations: **9.725** (WoS), **12.227** (Scopus), **17.586** (Google Scholar)
- Average citation/year (period 2016-20):**867** (WoS), **1.052** (Scopus), **1.514** (Google Scholar)
- Total journal publications in the first quartile (Q1): **90**
- h-index: **49** (WoS), **53** (Scopus), **62** (Google Scholar)
- **73** papers in IEEE journals and **21** works in IEEE-MTT-S-IMS conference (<u>since May 2011</u>)

Part B. CV SUMMARY *(in this summary, the whole trajectory is considered)*

IEEE Fellow (January 2012) and **IET Fellow** (February 2016). **Full Professor**, UAB Electronics Engineering Dept., since 2007 and **Director of the Department** (01/05/2015-30/04/2021). **Head of the GEMMA Research Group** (Consolidated Group of the *Generalitat de Catalunya*). **Director of CIMITEC** (Center for Research in Metamaterials for Innovation in Electronics and Communication Technologies), TECNIO accredited agent in the category of **technology developers** (*Generalitat de Catalunya*), ascribed to UAB, period 2006-2020. Director of one of the 6 **Technology Transfer** Chairs UAB Research Park-Santander, funded by Bank of Santander. **ICREA Academia Researcher** (distinction granted in 3 occasions, calls 2008, 2013 and 2018, by the Catalan Institute for Research and Advanced Studies-Generalitat de Catalunya, with a funding of 250.000€ for the period 2009-2013, and 200.000€ for 2014-

2018 and 2019-2023). Recipient of the 5th edition (2006) of the **Duran Farell Prize** for **Technological Research**, awarded by the Social Council of the UPC and Gas Natural (60.000€). Recipient of the *Ingeniero Comerma* **Award** for Industrial Engineering 2014, granted by the City Council of Ferrol and the University of A Coruña (12.000€). Pioneer in the design of RF/microwave components based on metamaterials and their application to communication circuits, sensors and RFID systems. The most relevant **academic achievements** are collected in **4 books** published by John Wiley and Springer (3 of them in the last 10 years). Since 2006, Ferran Martín has headed a **significant activity in technology transfer**, as revealed by the high number of collaborative projects with companies, contract agreements, valorization projects, and launched patents.

Internationalization and academic activity:
-Participation in **6 international projects** (2 of VI and VII **EU Framework Program**, 3 projects of the **Eureka Program** and 1 project with the **European Space Agency**).
-Presence in **editorial or scientific committees**: **Associate Editor** of 2 international journals, **TPC member** of 2 international congresses (including the European Microwave Conference, where I was TPC chair in 2018), **Invited Editor** for special issues in **5 international journals.**
-**Organization of 2 international congresses** (including the 5th International Congress on Advanced Electromagnetic Materials in Microwaves and Optics, Metamaterials 2011, Barcelona, with more than 450 attendees).
-**Organizer of 12 Tutorials / workshops** or **special sessions** at international conferences
-**Courses, tutorials, workshops or invited talks** at conferences and national and international institutions: **50** (2 plenary sessions).
-**Evaluator of international projects**: Natural Sciences and Engineering Research Council (NSERC) of **Canada** and National Science Center of **Poland.**
-**9 international scientific collaborations** (with published results).
-**President** in sessions, special sessions, or tutorials in 8 international congresses, including IEEE-MTT-S Int. Microwave Symposium (IMS) and European Microwave Conference (EuMC).
-**Reviewer** in more than 20 international journals.

Scientific productivity and generated PhDs
-Published books: **3** for **John Wiley & Sons** (1 of them with more than **1.300** copies sold and more than **1.300** citations), **1** for **Springer** (3 of these books published in last 10 years).
-Book chapters: **15** (7 in last 10 years)
-Papers in international journals: **305** (163 in last 10 years)
-Communications to conferences and proceedings: **336** (137 in last 10 years)
-**21** PhD Theses supervised: 11 with **Extraordinary Doctorate Prize**, 1 Prize 2005 of the Official College of Telecommunications Engineers (COIT), 1 Prize of the *Institut d'Estudis Catalans* of Sciences of Engineering *Rafael Campalans*, **2 theses published by Springer** (Outstanding Theses Collection). 13 PhDs generated in last 10 years.

Projects, technology transfer, and fundraising
-Participation in research projects: **27** (in 21 as PI or UAB PI), 13 in last 10 years.
-Other grants (short stays, infrastructure, congresses, etc.): **19**
-Collaborative projects with companies: **14** (in 9 as PI), 8 in last 10 years.
-Contract agreements with companies and administrations: **20** (8 in last 10 years)
-Valorization projects: **8** (6 in last 10 years)
-Patent applications: **14** (5 in last 10 years)
-Total resources collection last 10 years> **3MEuros**

Part C. RELEVANT MERITS

C.1. Publications *(10 relevant publications **since May 2011**)*

- J. Muñoz-Enano, P. Vélez, L. Su, M. Gil, P. Casacuberta and F. Martín, "On the Sensitivity of Reflective-Mode Phase-Variation Sensors Based on Open-Ended Stepped-Impedance Transmission Lines: Theoretical Analysis and Experimental Validation," IEEE Transactions on Microwave Theory and Techniques, vol. 69, no. 1, pp. 308-324, Jan. 2021.
- F. Martín, C. Herrojo, J.Mata-Contreras, F. Paredes, *Time-Doman Signature Barcodes for Chipless-RFID and Sensing Applications*, Springer, ISBN: 978-3-030-39725-8, 2020 (142 pages). **BOOK**

- P. Vélez, J. Muñoz-Enano, K. Grenier, J. Mata-Contreras, D. Dubuc, F. Martín, "Split ring resonator (SRR) based microwave fluidic sensor for electrolyte concentration measurements", IEEE Sensors Journal, vol. 19, no. 7, pp. 2562-2569, April 2019.
- F. Martín, Lei Zhu, Jia-Sheng Hong and Francisco Medina (Editors), *Balanced Microwave Filters*, John Wiley/ IEEE Press, ISBN: 978-1-119-23761-7, 2018 (672 pages). **BOOK**
- J. Mata-Contreras, C. Herrojo, F. Martín, "Application of split ring resonator (SRR) loaded transmission lines to the design of angular displacement and velocity sensors for space applications", IEEE Transactions on Microwave Theory and Techniques vol. 65, Issue 11, pp. 4450 – 4460, Nov. 2017.
- F. Martín, *Artificial Transmission Lines for RF and Microwave Applications*, John Wiley, ISBN: 978-1-118-48760-0, 2015 (520 pages). **BOOK**
- P. Vélez, J. Naqui, A. Fernández-Prieto, J. Bonache, J. Mata-Contreras, J. Martel, F. Medina, F. Martín, "Ultra-Compact (80 mm^2) Differential-Mode Ultra-Wideband (UWB) Bandpass Filters With Common-Mode Noise Suppression", IEEE Transactions on Microwave Theory and Techniques, vol.63, Issue 4, pp. 1272 - 1280, April 2015
- J. Naqui, and F. Martín, "Transmission Lines Loaded with Bisymmetric Resonators and Their Application to Angular Displacement and Velocity Sensors", IEEE Transactions on Microwave Theory and Techniques, vol. 61, pp. 4700-4713, Dec. 2013
- J. Naqui, A. Fernández-Prieto, M. Durán-Sindreu, F. Mesa, J. Martel, F. Medina, and F. Martín, "Common mode suppression in microstrip differential lines by means of complementary split ring resonators: theory and applications", IEEE Transactions on Microwave Theory and Techniques, vol. 60, pp. 3023-3034, Oct. 2012
- M. Durán-Sindreu, A. Vélez, G. Sisó, J. Selga, P. Vélez, J. Bonache, and F. Martín "Recent advances in metamaterial transmission lines based on split rings", Proceedings of the IEEE, vol. 99, pp. 1701-1710, October 2011

C.2. Research projects, including projects with companies *(8 selected __since May 2011__)*

- Project **PID2019-103904RB-I00**, PROGRAMA ESTATAL DE GENERACIÓN DE CONOCIMIENTO Y FORTALECIMIENTO CIENTÍFICO Y TECNOLÓGICO DEL SISTEMA DE I+D+i Y DEL PROGRAMA ESTATAL DE I+D+i ORIENTADA A LOS RETOS DE LA SOCIEDAD, MICIIN (2020-2023). *Diseño y sintesis de componentes de RF/microondas basados en conceptos avanzados y su aplicacion a circuitos de comunicaciones, sensores y RFID (III).* Head Researchers: Ferran Martín and Jordi Bonache. Funding:164.560,00 €.
- Project RTC2019-007226-7 Retos de Colaboración 2019 (2020-2022). *Sistema de autentificación e identificación basado en etiquetas RFID sin chip reciclables y biodegradables (AUTEN-TIC).* Partners: Germark, UAB-CIMITEC and IMB-CNM-CSIC. Head Researcher UAB: Ferran Martín. Total funding: 365.103,00Euros (UAB funding: 172.909 Euros).
- Project **RTC-2017-6303-7** Retos-Colaboración 2017 (2018-2021), *Encoder de microondas impreso de campo cercano para el control preciso de la altura de ascensores y elevadores (Near-field Lift Encoder) (Near-field printed microwave encoder for accurate height control of elevators).* Partners: Hohner Automáticos S.L., UAB-CIMITEC and EURECAT. Head Researcher UAB: **Ferran Martín**. Total funding: 917.940,66 € (UAB funding: 209.423 €)
- Project **TEC2016-75650-R**, Programa Estatal de I+D+i Orientada a los Retos de la Sociedad, MINECO (2016-2018). *Diseño y sintesis de componentes de RF/microondas basados en conceptos avanzados y su aplicacion a circuitos de comunicaciones, sensores y RFID (II) (Design and synthesis of RF/microwave components based on advanced concepts and application in communications, sensors and RFID II)* Head researchers: **Ferran Martín** and J. Bonache. Funding: 149.900 Euros
- Project **RTC-2014-2550-7**, Retos-Colaboración 2014 (2014-2016) *Desarrollo tecnológico de tags chipless RFID mediante tecnologías de impresión sobre substratos de bajo coste para su integración en sistemas de modernización electoral (Chipless RFID).* Partners: Scytl SECURE ELECTRONIC VOTING, S.A., Instituto de Microelectrónica de Barcelona-CNM (CSIC) y UAB-CIMITEC. Head researcher UAB: **Ferran Martín**. Total budget: 1.686.502,99 Euros. Funding: 490.171,00 Euros (154.940 Euros UAB). Loan Scytl: 657.977,00 Euros
- Grant **2014LLAV00046** for innovative projects with the potential to reach the market (LLAVOR), AGAUR – Generalitat de Catalunya. *Contactless microwave sensors for angular*

velocity measurement Main Researcher: **Ferran Martín**. Junior Scientist: Jordi Naqui Garolera Duration: year 2015. Funding: 24.000 Euros

- Project **TEC2013-40600-R** Programa Estatal de I+D+i Orientada a los Retos de la Sociedad, MINECO. (2014-2016) *Diseño y síntesis de componentes de RF/microondas basados en conceptos avanzados y su aplicacion a circuitos de comunicaciones, sensores y RFID.* (Design and synthesis of RF/microwave components based on advanced concepts and application in communications, sensors and RFID) Head researcher: **Ferran Martín**. Funding: 180.500 Euros.

- Project **TEC2010-17512,** Dirección General de Investigación y Gestión del Plan Nacional I+D+I, Ministerio de Ciencia e Innovación (2011-2013). *Nuevas estrategias de diseño y síntesis de componentes de microondas basados en conceptos de METAmateriales con orientación a la TRANSFERencia tecnológica (METATRANSFER) (New strategies for design and synthesis of microwave components based on metamaterial concepts and tech-transfer-oriented*) Head researcher: **Ferran Martín**. Funding: 179.900 Euros

C.3. Contracts, technological or transfer merits *(selected since May 2011)*

- Proyecto CDTI IDI-20201173 "*BARRERA VIRTUAL (E-BARRERA)*". Company OffshoreTech S.L. Head researcher UAB: Jordi Bonache. Company loan: 416.868 Euros. Funding UAB: 125.300€. May 2020 - May 2023.

- Project "Contactless Audit - Auditorías de resultados electorales de limitación de riesgo facilitadas por circuitos RFID impresos en papel" (Risk limitation audits of electoral results facilitated by RFID circuits printed on paper). Company: Scytl Secure Electronic Voting SA. Head researcher UAB: **Ferran Martín**. Subcontracted: CNM-CSIC and UAB-CIMITEC. Funding UAB: 42.500 €. March 2016 - December 2017

- Project Acción Estratégica Economía y Sociedad Digital (AEESD'15), Ministerio de Industria Energía y Turismo. *Sccet-Maie's Sistema De Control, Conservación, Eficiencia y Trazabilidad en Medicamentos de Alto Impacto Económico (Control, conservation, efficiency and traceability system for high-economic impact medications).* Company: NABELIA. Subcontracted: CNM-CSIC and UAB-CIMITEC. Head researcher UAB: **Ferran Martín**. Funding UAB: 59.259 €. September 2015 – December 2017

- Project Acción Estratégica Economía y Sociedad Digital (AEESD'15), Ministerio de Industria Energía y Turismo. *Desarrollo de tags chipless RFID mediante tecnologías de impresión para su integración en sistemas de receta médica segura (Development of Chipless RFID tags using electronic printing technologies for the application in secure medical prescriptions system).* Company: MEDITECNOLOGIA. Subcontracted: CNM-CSIC and UAB-CIMITEC. PI UAB: **Ferran Martín**. Funding UAB: 29.000 €. Jul. 2015 – Dec. 2017

- Project 4000111799/14/NL/SC (July 2014 – April 2015) of the Programme Innovation Triangle Initiative, European Space Agency (ESA), Coplanar symmetry-based contactless rotation sensor, Participants: EMXYS Embedded Instruments, UAB, UPV. Head researcher UAB: **Ferran Martín**. Funding UAB-CIMITEC: 22.000 Euros

- *Automated design of planar microwave circuits using Space Mapping techniques.* Company: AURORA SOFTWARE AND TESTING SL. Head researcher: **Ferran Martín**. Amount: 13.000 Euros. Duration: October 2010 – December 2012

C.4. Patents *(3 selected since May 2011)*

- *A chipless RFID tag, a chipless RFID system, and a method for encoding data on a chipless RFID tag.* C. Herrojo, J. Mata-Contreras, F. Paredes, F. Martín, Holder: Universitat Autònoma de Barcelona. Classification: - international: G06K19/067, - cooperative: G06K19/067 (EP); G06K19/0672 (EP). Application number: WO2018EP64332 20180531. Priority number(s): EP20170382326 20170601. Also published as: EP3631689 (A1). Currently in validation in national phases: US Serial No. 16/617,188

- *A contactless displacement and velocity measurement system.* F. Martín, J. Naqui, Applicant: Universitat Autònoma de Barcelona. Application number: EP15178984.9 (EPO) 1513381.2 (UK-PO) Priority date: 30/07/2015

- *Method for manufacturing a communication device to operate in near field and communication device thereof.* J. Bonache; F. Paredes; G. Zamora; S. Zuffanelli; F. Martín. Holder: Universitat Autònoma de Barcelona. Application number: EP13382287.4 (EPO), 1312367.4 (UK-PO). P201331049 (OEPM). Priority date: 10/07/2013.

C.5. Other relevant merits are indicated in part B.

Parte A. DATOS PERSONALES

		Fecha del CVA	08/01/2021
Nombre y apellidos	Teresa María Martín Guerrero		
Núm. identificación del investigador		Researcher ID	E-7806-2016
		Código Orcid	0000-0002-5179-378X

A.1. Situación profesional actual

Organismo	Universidad de Málaga
Dpto./Centro	Ingeniería de Comunicaciones
Dirección	E.T.S.I. Telecomunicación. Bulevar Luis Pasteur 35
Teléfono	952133395 — correo electrónico — teresa@uma.es
Categoría profesional	Catedrático de Universidad — Fecha inicio — 06/10/2016
Espec. cód. UNESCO	3325
Palabras clave	Modelado de dispositivos FET, dispositivos de microondas/milimétricas, técnicas avanzadas de posicionamiento por satélite, aplicaciones de metamateriales en ingeniería de microondas, amplificadores de potencia

A.2. Formación académica *(título, institución, fecha)*

Licenciatura/Grado/Doctorado	Universidad	Año
Licenciada en Ciencias Físicas. Esp. Electrónica	Universidad de Granada	1990
Doctora Ingeniera de Telecomunicación	Universidad de Málaga	1995

A.3. Indicadores generales de calidad de la producción científica *(véanse instrucciones)*

Sexenios de investigación concedidos: 4, siendo el último del tramo 2011-2017
3 Tesis Doctorales dirigidas en los últimos 10 años
500 citas, índice h: 12

Parte B. RESUMEN LIBRE DEL CURRÍCULUM *(máximo 3500 caracteres, incluyendo espacios en blanco)*

Mi actividad investigadora se ha desarrollado en torno a tres temas: los circuitos activos de microondas y ondas milimétricas, los sistemas de posicionamiento por satélite y el desarrollo de circuitos equivalentes para dispositivos activos y para estructuras planares. En el ámbito de los circuitos equivalentes para dispositivos activos de microondas y ondas milimétricas, desde la realización de mi Tesis Doctoral, me he dedicado al estudio y simulación de fenómenos de alta frecuencia en dispositivos tipo FET, así como al desarrollo de técnicas de extracción de parámetros. La participación en la Red de Excelencia del VI Programa Marco TARGET (Top Amplifier Research Groups in a European Team) supuso una importante evolución por la facilidad de contactos con otros grupos y la implicación en tareas de diseño de amplificadores de potencia de última generación. Desde el año 2002 trabajo también en las aplicaciones a la ingeniería de microondas de los conceptos derivados de los metamateriales con permitividad y permeabilidad negativas, con un enfoque orientado a la construcción de circuitos distribuidos activos novedosos por el empleo de líneas de transmisión artificiales diestras-zurdas que emulan las características de propagación en estos medios. El grupo de trabajo del que formo parte tiene reconocido actualmente un elevado nivel en este campo. He codirigido dos Tesis Doctorales sobre amplificadores y mezcladores distribuidos basados en líneas de transmisión diestras zurdas. Fruto de este trabajo han sido publicaciones con un elevado índice de impacto y la participación de nuestro grupo en un Proyecto Consolider (Engineering Metamaterials). En los últimos años he trabajado en la codirección de una Tesis Doctoral sobre diseño de antenas planares, a las que se ha llegado como evolución del estudio de elementos que permitieran la fabricación de líneas de transmisión artificiales con propiedades innovadoras, entre las que han destacado su buena adaptación y ancho de banda y sus buenas propiedades como elementos radiantes.

En el ámbito de los sistemas de posicionamiento por satélite, la actividad ha sido más limitada, pero de enorme interés estratégico. He sido responsable de mantener un nivel suficiente de actividad en este campo, a partir de la tutorización de numerosos Proyectos Fin de Carrera y de la co-dirección de una Tesis Doctoral, para hacer un seguimiento de las tecnologías implicadas y profundizar en técnicas avanzadas de posicionamiento de alta precisión. Esto ha permitido colaborar con una empresa del entorno en contratos ligados a proyectos para la realización de sistemas de localización.

Mi actividad como docente se ha desarrollado en los últimos 25 años en la E.T.S. de Ingeniería de Telecomunicación, donde he impartido diversas asignaturas de Análisis de Circuitos, Circuitos de Alta Frecuencia, Sistemas de Ayuda a la Navegación y Radar en las diferentes titulaciones de primero a tercer ciclo.

He desarrollado diferentes actividades de representación en órganos de Gobierno Universitarios y he ocupado el cargo de Secretaría del Departamento de Ingeniería de Comunicaciones y de Subdirectora de Investigación de la E.T.S. de Ingeniería de Telecomunicación.

Parte C. MÉRITOS MÁS RELEVANTES *(ordenados por tipología, últimos 10 años)*

C.1. Publicaciones

J. Mata Contreras, C. Camacho Peñalosa, T.M. Martín Guerrero, 'Active Distributed Mixers Based on Composite Right/Left Handed Transmission Lines', IEEE Transactions on Microwave Theory and Techniques, vol. 57 no.5, pp.1091-1101, May 2009, DOI: 10.1109/TMTT.2009.2017253

Jaime Esteban, Carlos Camacho-Peñalosa, Juan E. Page, and Teresa M. Martín-Guerrero, 'Generalized Lattice Network-Based Balanced Composite Right-/Left-Handed Transmission Lines', IEEE Transactions on Microwave Theory and Techniques, vol. 60, no. 8, pp. 2385-2393, 2012, DOI: 10.1109/TMTT.2012.2198225

Abdo-Sanchez, E.; Page, J.; Martin-Guerrero, T.; Esteban, J.; Camacho-Penalosa, C., 'Planar Broadband Slot Radiating Element Based on Microstrip-Slot Coupling for Series-fed Arrays ', IEEE Transactions on Antenas and Propagation, vol. 60, no. 12, pp. 6037-6042, December 2012, DOI: 10.1109/TAP.2012.2211558

Mata-Contreras, J.; Palombini, D.; Martin-Guerrero, T.M.; Limiti, E.; Camacho-Penalosa, C., 'Design and Experimental Performance of Diplexing MMIC Distributed Amplifier,' Microwave and Wireless Components Letters, IEEE ,vol. 23, no.7, pp.365-367, July 2013, DOI: 10.1109/LMWC.2013.2262262.

Ng-Molina, F. Y., Martin-Guerrero, T.M.; Camacho-Penalosa, C., 'Power recycling concept applied to distributed amplification', Microwaves, Antennas & Propagation, vol. 07, no.15, pp. 1207-1214, 2013, DOI: 10.1049/iet-map.2013.0160.

Abdo-Sanchez, E. ; Esteban, J. ; Martin-Guerrero, T.M. ; Camacho-Penalosa, C. ; Hall, P.S.

'A Novel Planar Log-Periodic Array Based on the Wideband Complementary Strip-Slot Element', Antennas and Propagation, IEEE Transactions, vol. 2, no.11, pp. 5572-5580, 2014, DOI: 10.1109/TAP.2014.2357414

Abdo-Sanchez, E ; Martin-Guerrero, T.M.; Esteban, J. ; Camacho-Penalosa, C., 'On the Radiation Properties of the Complementary Strip-Slot Elemen', Antennas and Wireless Propagation Letters, IEEE, vol.14, pp. 1389- 391, 2015. DOI: 10.1109/LAWP.2015.2407902

Abdo-Sanchez, E.; Palacios-Campos, D.; Frias-Heras, C.; Ng-Molina, F.; Martin-Guerrero,T.; Penalosa, C., 'Electronically-Steerable and Fixed-Beam Frequency-Tunable Planar Traveling-Wave Antenna', Antennas and Propagation, IEEE Transactions, vol. 64, no.4, Páginas inicial:1298 final: 1306, 2016, DOI: 10.1109/TAP.2016.2521895

E. Abdo-Sánchez, C. Camacho-Peññalosa, T. M. Martín-Guerrero and J. Esteban, "Equivalent Circuits for Nonsymmetric Reciprocal Two Ports Based on Eigenstate Formulation," in IEEE Transactions on Microwave Theory and Techniques, vol. 65, no. 12, pp. 4812 - 4822. DOI: 10.1109/TMTT.2017.2708103.

A. Hernández-Escobar, E. Abdo-Sánchez, J. Esteban, T.M. Martín-Guerrero, C. Camacho Peñalosa, "Broadband Determination of the Even- and Odd-Mode Propagation Constants of Coupled Lines Based on Two-Port Measurements", in IEEE Transactions on Microwave Theory and Techniques, 2020. DOI: 10.1109/TMTT.2019.2952115.

T. M. Martín-Guerrero, A. Santarelli, G. P. Gibiino, P. A. Traverso, C. Camacho-Peñalosa and F. Filicori, "Automatic Extraction of Measurement-Based Large-Signal FET Models by Nonlinear Function Sampling," in IEEE Transactions on Microwave Theory and Techniques, vol. 68, no. 5, pp. 1627-1636, May 2020, DOI: 10.1109/TMTT.2020.2968886.

T. M. Martín-Guerrero, A. Santarelli, G. P. Gibiino, P. A. Traverso, C. Camacho-Peñalosa and F. Filicori, "Measurement-Based FET Analytical Modeling Using the Nonlinear Function Sampling Approach," in IEEE Microwave and Wireless Components Letters, vol. 30, no. 12, pp. 1145-1148, Dec. 2020, doi: 10.1109/LMWC.2020.3027989.

C.2. Proyectos

Título del Proyecto: "Subsistemas Lineales Avanzados para comunicaciones inalámabricas", (P07-TIC-2649)).
Entidad financiadora: Consejería de Innovación, Ciencia y Empresa (Junta de Andalucía) .
Fecha de Inicio: Febrero 2008 Duración: 2 años.
Cuantía: 178.000 €
Investigador Responsable: Teresa M. Martín Guerrero, Organismo: Universidad de Málaga

Título del Proyecto: "Engineering Metamaterials", (CSD2008-00066)
Entidad financiadora: Ministerio de Ciencia e Innovación (Programa CONSOLIDER-INGENIO 2010)
Fecha de Inicio: Diciembre 2008 Duración: 5 años
Cuantía: 150.503,47 €
Responsable del Consorcio: Javier Martí (Universidad Politécnica Valencia)
Investigador Responsable: Carlos Camacho Peñalosa, Organismo: Universidad de Málaga

Título del Proyecto: Desarrollo de técnicas de calibración robustas para la caracterización de dispositivos diferenciales y multipuertos y su aplicación a nuevos servicios de comunicaciones (TIC2009/05116))
Entidad financiadora: Consejería de Innovación, Ciencia y Empresa (Junta de Andalucía) .
Fecha de Inicio: 2010 Duración: 4 años
Cuantía: 160.638,68 €
Investigador Responsable: Enrique Márquez Segura, Organismo: Universidad de Málaga

Título del Proyecto: "Nuevos circuitos de comunicaciones basados en metamateriales", (TIC2010-6883)
Entidad financiadora: Consejería de Innovación, Ciencia y Empresa (Junta de Andalucía).
Fecha de Inicio: 2011 Duración: 4 años
Cuantía: 240.447,00 €
Investigador Responsable: Carlos Camacho Peñalosa, Organismo: Universidad de Málaga

Título del Proyecto: Técnicas de combinación de amplificadores en aplicaciones de bajas pérdidas y alta potencia para sistemas de comunicaciones (TEC2013-47106-C3-3-R)
Entidad financiadora: Ministerio de Economía y Competitividad (Programa Estatal de Investigación, Desarrollo e Innovación Orientada a los Retos de la Sociedad)
Fecha de Inicio: 01/01/2014 Duración: 2 años
Cuantía: 49.610,00 €

Investigador Responsable: Carlos Camacho Peñalosa, Organismo: Universidad de Málaga
Título del Proyecto: Explorando las nuevas tecnologías de fabricación y de manufacturación aditivas para dispositivos pasivos en las bandas de microondas y milimétricas (TEC2016-76070-C3-3-R)
Entidad financiadora: Ministerio de Economía y Competitividad (Programa Estatal de Investigación, Desarrollo e Innovación Orientada a los Retos de la Sociedad)
Fecha de Inicio: 30/12/2016 Duración: 3 años

Cuantía: 113.740,00 €

Investigador Responsable: Enrique Márquez Segura, Carlos Camacho Peñalosa, Organismo: Universidad de Málaga.
Título del Proyecto: Técnicas de caracterización y modelado de dispositivos activos para el diseño de circuitos de microondas y ondas milimétricas (PRX18/00108)
Entidad financiadora: Ministerio de Ciencia, Innovación y Universidades. Programa de Movilidad 'Salvador de Madariaga')
Cantidad Financiada (€):15.489 €
Fecha de Inicio: 01/02/2019 Duración:5 meses
Investigador Responsable: Teresa M. Martín Guerrero
Organismo: Universidad de Málaga

C.3. Contratos

Título del contrato/proyecto: "Estudio de tecnologías y construcción de un piloto sobre caso Real de Geolocalización en Tiempo Real y en Múltiples entornos, de sujetos no colaborativos e identificación inequívoca" Contrato nº 8.06/5.59.3094)
Empresa/Administración financiadora: Ingenia S.A.
Duración, desde: Junio 2008   hasta: Octubre 2008
Investigador responsable: Teresa M. Martín Guerrero
Cuantía: 13.000 €

Título del contrato/proyecto: "Object Supervision and Location System (OSLOS)" Contrato nº 8.06/5.59.3347
Empresa/Administración financiadora: Ingenia S.A.
Duración, desde: Junio 2009   hasta: Junio 2011
Investigador responsable: Teresa M. Martín Guerrero
Cuantía: 29.000 €

Título del contrato/proyecto: "Técnicas de correción y calibración en radios de muy elevado ancho de banda. Proyecto 4Green en el marco del Programa Feder-Interconecta"
Contrato nº 8.06/5.59.3952
Empresa/Administración financiadora: Agilent Technologies Spain S.L.
Duración, desde: Julio 2012   hasta: Junio 2013
Investigador responsable: Carlos Camacho Peñalosa
Cuantía: 60.927,13 €

Título del contrato/proyecto: Realización de trabajos de investigación en el proyecto 'CEPHEUS' (Proyecto 'CEPHEUS' en el marco del Programa Feder-Interconecta)
Contrato nº 8.06/5.59.4090 - 08.06.00.24.21
Empresa/Administración financiadora: MESUREX, S.L.
Duración, desde: Julio 2013   hasta: Junio 2014
Investigador responsable: Carlos Camacho Peñalosa
Cuantía: 46.282,00 €

C.5. Participación en comités internacionales

Miembro del TPC del The International Workshop on Integrated Nonlinear Microwave and Millimetre-wave Circuits desde 2004 hasta la fecha.

Miembro del TPC de la European Microwave Week desde noviembre 2016 hasta la fecha.

Chair del Comité Organizador del 13th European Microwave Integated Circuit Conference (EuMIC 2018)

C.6. Tareas de revisión y evaluación

Miembro del panel de revisores de la European Microwave Integrated Circuits Conference (EuMIC, European Microwave Week) desde el año 2006 hasta la fecha

Revisora habitual de la ANEP (27 evaluaciones desde el año 2006 hasta la fecha)

Revisora de manuscritos en diversas publicaciones del área, destacando de ellas:

- IEEE Transactions on Microwave Theory and Techniques (desde 2006)
- IEEE Microwave and Wireless Components Letters (desde 2011)

Part A. PERSONAL INFORMATION

			CV date	05/07/2021

First and Family name	Vicente E. Boria Esbert	
Social Security, Passport, ID number		Age
Researcher codes	WoS Researcher ID *(*)*	E-8420-2016
	SCOPUS Author ID*(*)*	35448906200
	Open Researcher and Contributor ID (ORCID) **	0000-0001-7150-9785

(*) At least one of these is mandatory
(**) Mandatory

A.1. Current position

Name of University/Institution	Technical University of Valencia		
Department	Communications / R&D Institute on Telecommunications and Multimedia Applications (iTEAM)		
Address and Country	ETSIT-UPV, Camino de Vera s/n, E-46022, Valencia, España		
Phone number	+34 96 3879718	E-mail	vboria@dcom.upv.es
Current position	Full Professor	From	22/09/2003
Key words	Microwave Circuits, Antennas, Optimized Design, Applied Electromagnetism, Radiofrequency (RF) Technologies Satellite Communications, High Power Effects		

A.2. Education

Master/PhD	University	Year
Telecomm. Engineer	Technical University of Valencia	04/10/1993
PhD Electrical Engineering	Technical University of Valencia	25/06/1997

A.3. JCR articles, h Index, thesis supervised *(see instructions…)*

Number of successful 6-years R&D Periods: 4 (in 2017-2021 co-author of 65 JCR articles)
Number of successful 6-years Technology Transfer Periods: 1 (period 2000-2010)
Date of last successful R&D Period: June 2017 (period 2011-2016)
Number of Supervised Doctoral Thesis (since 01/01/2016): 8 (22 in total, since 2002)
Number of Total Cites: 5010 (2704 since 2016), Data (cites, h index): Google Scholar
Average Number of Cites/Year (last 5 years): 495 (2477 total cites in 2016-2020)
Number of Total Publications in first quartile (Q1): 115
H index: 35 (24 in 2016)

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

Vicente E. Boria received his "Ingeniero de Telecomunicación" degree (with first-class honors) and the "Doctor Ingeniero de Telecomunicación" degree, both from Technical University of Valencia (Universidad Politécnica de Valencia, UPV), Valencia, Spain, in 1993 and 1997, respectively.

In 1993 he joined the "Departamento de Comunicaciones" (UPV), where he is Full Professor since October 2003. During 1995 and 1996, he hold a Spanish Trainee position with the European Space Research and Technology Centre, European Space Agency (ESTEC-ESA), Noordwijk, The Netherlands. In 1997, he created a new R&D Group on Microwave Applications (GAM), focused on the practical development of high-frequency components (passive devices and antennas) for space applications (see www.gam.upv.es). The GAM group is one of the founding members of the Research Institute on Telecommunications and Multimedia Applications (iTEAM), which is part of UPV.

He is co-founder of Aurora Software and Testing S.L. -AURORASAT- (a UPV spin-off company established in 2006), where he has been Scientific Advisor until its acquisition in 2017 by the multi-national company Dassault Systèmes. In 2010, Prof. Boria was appointed

President of the Executive Commission of Val Space Consortium (VSC), which is a public body of Valencia region leading research activities and technological developments in the space sector. He is co-Director of the European High-Power RF Laboratory, physically located in Valencia (Spain) and jointly managed by ESA and VSC.

His research lines are focused on the practical development of analysis and design techniques of high-frequency components (passive circuits, antennas) realized in different technologies, as well as on the modelling and experimental validation of RF breakdown (multipactor and corona) and non-linear (passive inter-modulation, PIM) effects, with special focus on space applications. In these topics, he has co-authored 15 book chapters (with international publishers), 200 articles (peer-reviewed) in well-known journals with high impact factors (published by IEEE, IET and AGU), and over 250 technical contributions in local and international conferences (organized by IEEE, URSI, EuMA and EurAAP, and with prior peer-review committees).

In 2001, Prof. Boria received a prize for his outstanding research activity (in the period 1995-2000) from Social Council (UPV). Since 1992, he is member of the IEEE Societies of Microwaves (MTT-S) and Antennas (AP-S), and was elevated to Fellow grade (by MTT-S nomination) in 2018. He has been Chair of the Technical Committee on Filters and Passive Components (TC-8) of IEEE MTT-S (term 2014-2016), as well as Chair of the Spanish Joint-Chapter of IEEE AP-/MTT-S (terms 2013-2015 and 2016-2017).

Since 2003, he is a regular reviewer of the most relevant IEEE and IET technical journals on his areas of interest, and member of the Technical Committees of well-known international conferences (e.g. IEEE MTT-S International Microwave Symposium, European Microwave Conference and European Conference on Antennas & Propagation). He has been Associate Editor of IEEE Microwave and Wireless Components Letters (2013-2018) and IET Electronics Letters (2015-2018), where he is serving as Subject Editor on "Microwaves".

He has participated in 45 R&D competitive projects (with funding from Europe, Spain and Regional governments), and has led 20 contracts of technology transfer with supra-national (ESA) organizations and space companies (Thales Alenia Space, Airbus, ITLink, IDS and AURORASAT), being co-author of 8 active patents (3 of them developed together with ESA).

Part C. RELEVANT MERITS *(sorted by typology, as follows)*

C.1. Publications *(including books and conference articles)*

Since 2016, Prof. Boria has co-authored 4 book chapters with international publishers, 79 articles in prestigious journals (all peer-reviewed and mostly published by IEEE), and 90 papers at conferences of global reference (organized by IEEE, EuMA, EurAPP and ESA). The 10 most relevant publications (2 book chapters, 6 journal articles and 2 conference papers) published in the last 5 years are collected next:

[P1] .A.A. San Blas, M. Guglielmi, J.C. Melgarejo, A. Coves, **V.E. Boria**, "Design procedure for bandpass filters based on integrated coaxial and rectangular waveguide resonators", IEEE Trans. Microwave, Theory and Tech., vol. 68, no. 10, pp. 4390-4404, Oct. 2020.

[P2] L. Martínez, A. Belenguer, **V.E. Boria**, A.L. Borja, "Compact folded bandpass filter in empty substrate integrated coaxial line at S-Band", IEEE Microwave and Wireless Components Letters, vol. 29: pp. 315-317, May 2019.

[P3] S. Sirci, J.D. Martínez, M.A. Sánchez-Soriano, **V.E. Boria**, "Advances in planar coaxial SIW resonator filters design", Chapter (pp. 59-88) of Book titled: "Advances in Planar Filters Design", Ed. SciTech Publishing (IET, London, UK), ISBN 978-1-78561-589-4, May 2018.

[P4] S. Cogollos, J. Vague, **V.E. Boria**, J.D. Martínez, "Novel planar and waveguide implementations of impedance matching networks based on tapered lines using generalized superellipses", IEEE Trans. Microwave, Theory and Tech., vol. 66: pp. 1874-1884, Apr. 2018.

[P5] C.M. Kudsia, R.J. Cameron, R. Mansour, **V.E. Boria**, S. Cogollos, "High-power considerations in microwave filter networks", Chapter (pp. 643-678) of Book titled: "Microwave Filters for Communication Systems: Fundamentals, Design, and Applications", Ed. John Wiley & Sons, Inc. (Hoboken, USA), ISBN 978-1-118-27434-7, April 2018.

[P6] D. Sánchez, M. Baquero, P. Soto, **V.E. Boria**, M. Guglielmi, "On multimode equivalent network representation of finite arrays of open-ended waveguides", IEEE Trans. Antennas and Prop., vol. 65: pp. 4334-4339, Aug. 2017.

[P7] H. Esteban, A. Belenguer, J.R. Sánchez, C. Bachiller, **V.E. Boria**, "Improved low reflection transition from microstrip line to empty substrate-integrated waveguide", IEEE Microwave and Wireless Components Letters, vol. 27: pp. 685-687, Aug. 2017.

[P8] S. Cogollos, P. Micó, J. Vague, **V.E. Boria**, M. Guglielmi, "New design methodology for multiband waveguide filters based on multiplexing techniques", IEEE Int. Microwave Symp. Digest, pp. 741-744, Honolulu (HI, USA), June 2017.

[P9] S. Anza, C. Vicente, J. Gil, **V.E. Boria**, D. Raboso, "Experimental verification of multipactor prediction methods in multicarrier systems", Proc. of 46th European Microwave Conference, pp. 226-229, London (UK), Oct. 2016.

[P10] A. Berenguer, V. Fusco, D.E. Zelenchuk, D. Sánchez, M. Baquero, **V.E. Boria**, "Propagation characteristics of groove gap waveguide below and above cutoff", IEEE Trans. Microwave, Theory and Tech., vol. 64: pp. 27-36, Jan. 2016.

C.2. Research Projects and Grants

Since 2016, Prof. Boria has participated in <u>15 research projects and grants</u> supported with European, Spanish and Regional funds (he has been the <u>Principal Investigator in 14 of them</u>), from which the 6 following ones are highlighted:

[Pr1] "Advanced Design of New High Frequency Components in Compact Guided Technologies for Future Telecommunication Satellites" (GUIDESAT, Ref. PID2019-103982RB-C41), Spanish Government (R&D National Plan 2017-2020, 2019 Challenges Call), **PI: V.E. Boria (UPV)**, 272.250 €, Jun. 2020 - Jun. 2021.

[Pr2] "Advanced Technologies for Future European Satellite Applications" (TESLA, Ref. 811232), European Union (Horizon 2020 Programme, MSCA-ITN-ETN, Marie Sklodowska-Curie Innovative Training Networks), **PI: V.E. Boria (UPV)**, 467.250 €, Jan. 2019 - Dec. 2022.

[Pr3] "Advanced Technological Demonstrators for Emerging and Inclusive Applications in Microwave and Millimetre-Wave Bands" (SPADE-VLC, Ref. PROMETEO/2019/120), Valencia Regional Government (Call 2019 of PROMETEO Programme for Excellence Research Groups), **PI: V.E. Boria (UPV)**, 253.675 €, Jan. 2019 - Dec. 2022.

[Pr4] "SMT Compatible Electro-Mechanical Relay for Compact Redundancy Ring" (SELECTOR, Ref. 821973), European Union (Horizon 2020 Programme, Space-2018 Research and Innovation Action), **PI: V.E. Boria (UPV)**, 277.530 €, Jan. 2019 - Dec. 2021.

[Pr5] "Technological Demonstrators of Filters and Multiplexers with Reconfigurable and Selective Responses in New Compact Waveguides for Space Applications" (COMPASSES, Ref. TEC2016-75934-C4-1-R), Spanish Government (R&D National Plan 2013-2016, 2016 Challenges Call), **PI: V.E. Boria (UPV)**, 352.715 €, Dec. 2016 - Dec. 2019.

[Pr6] "Efficient Synthesis and Design of Reconfigurable MEMS-based Band Pass Filters in SIW Technology" (SIWTUNE, Ref. FP7-PEOPLE-2012-CIG, PCIG11-GA-2012-322162), European Union (7th Framework Programme, Marie Curie Support for Training and Career Development of Researcher -CIG-), **PI: V.E. Boria (UPV)**, 100.000 €, Jan. 2013 - Jan. 2017.

C.3. Contracts (technology transfer merits)

The technology transfer of Prof. Boria's research work has been implemented through the participation and technical leadership (<u>in the last 5-years period</u>) of <u>20 contracts</u> (most of them <u>with ESA and companies in the space sector</u>), highlighting the next ones:

[C1] "Integrated Coaxial Resonator Filters" (Ref. ITI-B AEO/A/1237/18.8656), Funding Body: ESTEC (ESA), Participants: Thales Alenia Space Spain, Thales Alenia Space France, **PI: V.E. Boria (UPV)**, 51.000 €, Feb. 2019 - July 2020.

[C2] "Multipactor prediction techniques for GNSS Signals", Entidad: Consorcio Espacial Valenciano, Investigador Principal: Vicente E. Boria Esbert, **IP: V.E. Boria (UPV)**, 554.164 €, Feb. 2019 - Agosto 2021.

[C3] "Passive RF Electronics for High Power Payloads" (Ref. ITI-B AEO/A/1237/18.8876), Funding Body: ESTEC (ESA), Participants: Heriot-Watt University, Active Aerogels Portugal, **PI: V.E. Boria (UPV)**, 45.000 €, April 2019 - July 2020.

[C4] "Novel Investigations in Multipactor Effect in Ferrite and Other Dielectrics used in High Power RF Space Hardware" (Ref. TRP AO1-7551/13/NL/GLC), Funding Body: ESTEC (ESA), Participants: AURORASAT, **PI: V.E. Boria (UPV)**, 60.000 €, Nov. 2013 - Nov. 2017.

[C5] "Ka-Band PIM Test-Bed" (Ref. UPV/ESA/1300031411/1), Funding Body: ESTEC (ESA), **PI: V.E. Boria (UPV)**, 79.500 €, July 2015 - Dec. 2016.

C.4. Patents

As result of Prof. Boria's research activities, he is <u>co-inventor of 8 active patents</u>, citing next the 3 most relevant ones:

[Pa1] C. Bachiller, J.R. Sánchez, V. Nova, M.L. Marín, J.M. Merello, **V.E. Boria**, "Manufacturing method of microwave device based on empty substrate integrated waveguide", Ref. P201830647, Priority Country: Spain, Owner Entity: UPV, Date: 28/06/2018. International Extension Nr. PCT/ES2019/070426, 2019.

[Pa2] M. Guglielmi, **V.E. Boria**, J. Ossorio, J. Vague, "Microwave filtering and switching device", Ref. P201830514, Priority Country: Spain, Owner Entity: UPV, Date: 30/05/2018. International Extension Nr. PCT/ES2019/070351, 2019.

[Pa3] P. Angeletti, M. Baquero, **V.E. Boria**, M. Guglielmi, G. Toso, "Radiating cell for multibeam antenna", Ref. P201730838, Priority Country: Spain, Owner Entity: UPV, Date: 26/06/2017. International Extension No. PCT/ES2018/070401, 2018.

C.5. Supervisor Tasks (PhD Thesis, Master Thesis, Final Year Projects)

Supervision of <u>22 PhD Thesis</u>, <u>24 Master Thesis</u> and <u>44 Final Year Projects</u>, highlighting:

[S1] "Development of new tunable passive microwave components in waveguide technology" (PhD Thesis, Apr. 2021).

[S2] "Influence of electron seeding techniques for determining the threshold level of multipactor effect" (Master Thesis, Sept. 2018).

[S3] "Design of a coupled cavities filter in empty substrate integrated coaxial line" (Final Year Project, July 2017).

C.6. Evaluation Tasks (Editorial Committees of Journals and Conference Committees)

[E1] Associate Editor of international technical journals: IEEE Microwave and Wireless Components Letters (2013-2018) and IET Electronics Letters (since Dec. 2015).

[E2] Guest Editor of Special Issue on "2016 IEEE MTT-S Latin America Microwave Conference (LAMC 2016)", IEEE Trans. Microwave Theory and Tech., Sept. 2017.

[E3] Reviewer of most relevant technical journals on microwaves and antennas: IEEE Trans. Microwave Theory Tech., IEEE Microw. Magazine, IEEE Trans. Ant. & Prop., IEEE Ant. Wirel. Prop. Lett., IEEE Trans. Electron Dev., IEEE Electron Dev. Lett., Radio Science., etc.

[E4] Member of Technical Program Committees of international conferences: IEEE Int. Microwave Symposium (since 2003) and European Microwave Conf. (since 2003).

[E5] Chair of Technical Committee of 2018 IEEE MTT-S Int. Conf. NEMO, Agosto 2018.

C.7. Management Tasks (Scientific Programs, Plans and R&D Actions)

[M1] Associated Staff of COM (Electronic Technology and Communications) area, Spanish Agency of Evaluation & Prospective (ANEP), Spanish Research Agency (AEI), 2014-2018.

[M2] Chair, Co-chair and Member of Technical Committee TC-8 on "Filters and Passive Components" of IEEE MTT-S (2014-2016, 2011-2013 and since 2004).

[M3] Spanish Expert (representative of Regional Governments) in the "Space" Committee of 7th European Framework Programme, Brussels, 2010.

C.8. Other Merits (International Societies, Workshops and Courses Organization)

[O1] Member of IEEE MTT-S and AP-S (since 1993, Fellow grade in 2018).

[O2] Chair & Secretary of Spanish Joint Chapter IEEE AP-/MTT-S (2013-2017, 2007-2012).

[O3] Delegate of Group 14 (Andorra, Portugal, Spain) in General assembly of European Microwave Association -EuMA- (2015-2017), and Co-Chair of Topical Group on "Microwaves for Space Applications" (2017-2019).

[O4] Organizer of workshops and courses (IEEE, EuMA-EuCoM) on "Filters and Multiplexers" and "High Power Effects" (since 2003).

ELENA GARCÍA BARRIOCANAL

CATEDRÁTICA DE UNIVERSIDAD

RESUMEN DE LOS PRINCIPALES MÉRITOS

Dpto: Ciencias de la Computación.

Área de Conocimiento: Lenguajes y Sistemas Informáticos.

Tramos de investigación reconocidos: 3 investigación (2000-2005, 2006-2011, 2012-2017) + 1 transferencia (2005-2010)

Tramos de docencia reconocidos: 3 (feb2000-feb2005, feb2005-feb2010, feb2010-feb2015)

1. MÉRITOS DE INVESTIGACIÓN

Listado de artículos publicados en revistas indexadas en Journal of Citation Report

PUBLICACION	JCR EDITION	FACTOR IMPACTO	CUARTO
Sicilia, M.A., García-Barriocanal, E., Díaz, P., Aedo, I. and Díaz, P. (2003) A Literature Based Approach to the Annotation and Browsing of Domain-Specific Web Resources. Information Research 8(2)	ISI JCR Social Sciences Edition 2004	Information Science & Library Science. (0.841)	2
Sicilia, M.A. and García-Barriocanal, E. (2003). On the Concepts of Usability and Reusability of Learning Objects. International Review of Research in Open and Distance Learning, 4(2).	ISI JCR Social Science Edition 2011	Education & educational research (0.687)	2
Sicilia, M. A., García-Barriocanal, E. and Calvo,.T. (2004) An Inquiry-Based Method for Choquet Integral-Based Aggregation of Interface Usability Parameters. Kybernetika, 39(5), 159-164	ISI JCR Science Edition 2004	Cybernetics (0.224)	3
Sicilia, M.A., Cuadrado, J.J., Crespo, J., García, E. (2005) Software Cost Estimation with Fuzzy Inputs: Fuzzy Modelling And Aggregation Of Cost Drivers. Kybernetika 41(2), 249-264	ISI JCR Science Edition 2005	Cybernetics (0.343)	3
García, E, Sicilia, M.A., Sánchez, S. (2005) Usability evaluation of ontology editors. Knowledge Organization 32(1),1-9.	ISI JCR Social Sciences Edition 2005	Information Science & Library Science. (0.533)	2
Sicilia, M. A., Lytras. M., Rodríguez, E. García, E. (2006) Integrating Descriptions of Knowledge Management Learning Activities into Large Ontological Structures: A case Study. Data and Knowledge Engineering 57(2), 111-121	ISI JCR Science Edition 2006	Information Science and Library Science (1,367)	2
Sánchez-Alonso, S. and García, E. (2006) Making use of upper ontologies to foster interoperability between SKOS concept schemes. Online Information Review, 30, (3), 263-277.	ISI JCR Social Sciences Edition 2006	Information Science and Library Science (0,750)	2
Sicilia, M.A., García, E. González-Sotos, L. (2006). Introducing fuzziness in object models and database interfaces through aspects. International Journal of Intelligent Systems 21(12), 1199 – 1216	ISI JCR Science Edition 2006	Artificial Intelligence (0.429)	3
Sicilia, M.A. and García-Barriocanal, E. (2006). Extending Object Database Interfaces with Fuzziness through Aspect-Oriented Design. ACM SIGMOD Record 35(2), 4-9.	ISI JCR Science Edition 2006	Software Engineering (1.455)	1
García, E., Sicilia, M.A. (2007) Representing Evidence about Interpersonal Relationships of Public People in the Semantic Web. Aslib Proceedings 59(6), 550564	ISI JCR Science Edition 2007	Information Systems (0.413)	4
García, E., Sicilia, M.A., Lytras, M. (2007) Pedagogical clasification frameworks for learning objects: A case study. Computers in Human Behaviour 23(6), 2641-2655	ISI JCR Social Science 2007	Psychology: Multidisciplinary (1.344)	1
Sicilia, M.A., García, E., Sanchez, S. (2008) Empirical assessment of a collaborative filtering algorithm based on OWA operators. International Journal on Intelligent Systems 23(12), pp.1251-1263	ISI JCR Science Edition 2008	Artificial Intelligence (0.860)	3
Aroba, J., Cuadrado, JJ., Sicilia, M.A., Ramos, I., García Barriocanal, E. (2008) Segmented software cost estimation models based on fuzzy clustering. The journal of systems and software 81(11), pp. 1944-1950	ISI JCR Science Edition 2008	Software Engineering (1.241)	2
Sicilia, J.J., Sicilia, M.A., Sánchez-Alonso, S., García-Barriocanal, E. and Pontikaki, M. (2009) Knowledge Representation Issues in Ontology-based Clinical Knowledge Management Systems. International Journal of Technology Management 47(1-3), 191-206	ISI JCR Science Edition 2008	Engineering: Multidisciplinary (0.526)	3
Sicilia, M.A. García-Barriocanal, E. Sánchez-Alonso, S. Rodríguez-García, D. (2009) Ontologies of engineering knowledge: general structure and the case of Software Engineering. Knowledge Engineering Review 24(3), 309-326.	ISI JCR Science Edition 2009	Artificial Intelligence (1,588)	2
Sicilia, M.A., Sánchez-Alonso, S., García-Barriocanal, E. and Zapata, M. (2011) Modeling instructional-design theories with ontologies: using methods to check, generate and search learning designs. Computers and Human Behavior, 27(4), pp. 1389-1398	ISI JCR Social Science 2010	Psychology: Multidisciplinary (1,865)	1

Sanchez-Alonso, S., Sicilia, M.A., Garcia-Barriocanal, E., Pages-Arevalo, C., Lezcano, L. (2010) Social models in open learning object repositories: A simulation approach for sustainable collections, Simulation Modelling Practice and Theory, 19(1), pp. 110-120.	ISI JCR Science Edition 2010	Software Engineering (0,736)	3
Rodríguez, D., García, E., Sánchez, S., Rodríguez-Solano, C. (2010) Defining software process model constraints with rules using OWL and SWRL. International Journal of Software Engineering and Knowledge Engineering 20(4), 533-548 http://dx.doi.org/10.1142/S0218194010004876	ISI JCR Science Edition 2010	Software Engineering (0,248)	4
Rodríguez, D., Sicilia, M.A., Sanchez-Alonso, S., Lezcano, L. and García-Barriocanal, E. (2011) Exploring affiliation network models as a collaborative filtering mechanism in e-learning. International Journal of Interactive Learning Environments, Interactive Learning Environments, 19(4), pp. 317-331	ISI JCR Social Science 2010	Education and Ed. Research (0,707)	2
García, E., Sanchez, S., Rodríguez, D., (2011) Devising instruction from empirical findings on student errors: a case in usability engineering education. International Journal on Engineering Education 27(1), pp. 1-7	JCR Science Edition 2008	Engineering Multidisciplinary (0,552)	3
Sicilia, M.A., Sánchez-Alonso, S. and García-Barriocanal, E. (2011). Comparing impact factors from two different citation databases: the case of computer science. Journal of Informetrics, 5(4), 698-704. https://doi.org/10.1016/j.joi.2011.01.007	ISI JCR Social Science Edition 2011	Information Science and Library Science (4.229)	1
Segura, A., Sánchez, S., García, E., Prieto, M. (2011) An empirical analysis of ontology-based query expansion for learning resource searches using MERLOT and the Gene ontology. Knowledge-Based Systems, 24(1), 119-133. http://dx.doi.org/10.1016/j.knosys.2010.07.012	ISI JCR Science Edition 2011	Artificial Intelligence (2,422)	1
Cechinel, C., García, E., Sánchez, S., (2011) Statistical Profiles of Highly-Rated Learning Objects. Computers & Education, 57(1), 1255-1269. http://dx.doi.org/10.1016/j.compedu.2011.01.012	ISI JCR Science Edition 2011	interdisplinary applications (2,621)	1
García-Barriocanal, E., Sicilia, M.A., Sánchez-Alonso, S. and Lytras, M. (2011). Semantic annotation of video fragments as learning objects: a case study with YouTube videos and the Gene Ontology. Interactive Learning Environments 19(1), 22-44. https://doi.org/10.1080/10494820.2011.528879	ISI JCR Social Science 2011	Education and Ed. Reearch (1.163)	1
Pavlis, M., García, E. (2008) Development of personalized learning objects for training adult educators of special groups, Journal of Knowledge Management, 12(6), 89-101 https://doi.org/10.1108/13673270810913649	ISI JCR Social Science Edition 2011	Information Science and Library Science (1.248)	2
Valiente, M.C., García, E. and Sicilia, M.A. (2012) Applying ontology-based models for supporting integrated software development and IT service processes IEEE Transactions on Systems, Man and Cybernetics Part C, 42(1), 61-74. http://dx.doi.org/10.1109/TSMCC.2011.2132717	ISI JCR Science Edition 2012	Artificial intelligence (2.548)	1
Korfiatis, N., García, E, Sanchez, S. (2012) Evaluating content quality and helpfulness of online product reviews: The interplay of review helpfulness vs. review content. Electronic Commerce Research and Applications 11(3), 205-217. http://dx.doi.org/10.1016/j.elerap.2011.10.003	ISI JCR Science Edition 2012	Artificial intelligence (1,480)	2
Samaras, L, García, E., Sicilia, M.A (2012) Syndromic surveillance models using Web data: the case of scarlet fever in the UK. Informatics for Health and Social Care 37(2), 106-124. http://dx.doi.org/10.3109/ 17538157.2011.647934	ISI JCR Science Edition 2012	Health care and informatics (1,273)	4
Valiente, MC, Sicilia, M.A., García, E. (2012) Applying an Ontology Approach to IT Service Management for Business-IT Integration. Knowledge-Based Systems, 28, 76-87. http://dx.doi.org/10.1016/j.knosys.2011.12.003	ISI JCR Science Edition 2012	Artificial intelligence (4.104)	1
Sicilia, M.A., Rodríguez, D., Garcia, E., Harrison , R (2012) Empirical findings on the effect of team size and productivity in software development. Journal of Systems and Software, 85(3), 562-570. http://dx.doi.org/10.1016/j.jss.2011.09.009	ISI JCR Science Edition 20012	Software Engineering (1.135)	2
Sicilia, M.A., Rodríguez, D., García, E., Sánchez, S. (2012) Empirical Findings on Ontology Metrics. Expert Systems with Applications 39(8), 6706-6711. http://dx.doi.org/10.1016/j.eswa.2011.11.094	ISI JCR Science Edition 2012	Software Engineering (1,854)	2
García, E., Sicilia, M.A., Sánchez-Alonso, S. (2012) Computing with competencies: modelling organizational capacities. Expert Systems with Applications, 39(16), 12310-12318. http://dx.doi.org/10.1016/j.eswa.2012.02.194	ISI JCR Science Edition 2012	Software Engineering (1,854)	2
Lezcano, L., García, E. Sicilia, M.A. (2012) Bridging informal tagging and formal semantics via hybrid navigation. Journal of Information Science 38(2) 140–155. http://dx.doi.org/10.1177/0165551511435882	ISI JCR Science Edition 2012	Information Systems (1.238)	2
García, E., Sicilia, M.A., Sánchez, S. (2012) Social network-aware interfaces as facilitators of innovation Journal of Computer Science and Technology, 27(6), 12111221. http://dx.doi.org/10.1007/s11390-012-1297-x	ISI JCR Science Edition 2012	Software Engineering (0.477)	4
Joerg, B., Ruiz-Rube, I., Sicilia, M.A., Dvořák, J., Jeffery, K., Hoellrigl, T., Rasmussen, H.A., Engfer, A., Vestdam, T., Garcia, E. (2012) Connecting closed world research information systems through the linked open data web. International Journal of Software Engineering and Knowledge Engineering, 22(3), 345-364. http://dx.doi.org/10.1142/S0218194012400074	ISI JCR Science Edition 2012	Artificial Intelligence (0,295)	4
Garre, M., García, E. ,Siakas, K., Sicilia, M.A.,Koinig, S., Messnarz, R., Clarke, A. (2012) Analyzing the Corporate Responsibility Web Pages of Consumer Electronics Companies: implications for process improvement IET Software 6(5), 451-460. http://dx.doi.org/10.1049/iet-sen.2011.0207	ISI JCR Science Edition 2012	Software Engineering (0.658)	3

García-Barriocanal, E., Sicilia, M.A., Sánchez-Alonso, S. (2013). Providing semantic metadata to on-line learning resources on sustainable agriculture and farming: combining values and technical knowledge. Interactive Learning Environments 21(3), 301-318. Publicado primero online nov 2011 https://doi.org/10.1080/10494820.2011.559170	ISI JCR Social Science 2011	Education and Ed. Reearch (1.163)	1
Cechinel, C., Sanchez, S., García, E., Sicilia, M.A. (2013) Evaluating Collaborative Filtering Recommendations inside Large Learning Object Repositories. Information Processing & Management 49(1), 34-50. http://dx.doi.org/10.1016/j.ipm.2012.07.004	ISI JCR Science Edition 2013	Information Systems (1.069)	3
Lezcano, L., Santos, L., García, E. (2013) Semantic integration of sensor data and disaster management systems - The Emergency Archetype approach. International Journal of Distributed Sensor Networks, 9(5), 1-11. http://dx.doi.org/10.1155/2013/424821	ISI JCR Science Edition 2013	Telecommunications (0.923)	3
Messnarz, R., Sicilia, M.A. Biro, M., García-Barriocanal, E., Garre-Rubio, M., Siakas, K., Clarke, A. (2013) Social responsibility aspects supporting the success of SPI. Journal Of Software Maintenance And Evolution-Research And Practice, 26(3), 284-294 http://dx.doi.org/10.1002/smr.1586	ISI JCR Science Edition 2013	Software Engineering (1.320)	2
Rius, A., Conesa, J., García, E. Sicilia, M.A. (2013) Specifying Patterns of Educational Settings by means of Ontologies. Journal of Universal Computer Science, 19(3), 353-382. http://dx.doi.org/10.3217/jucs-019-03-0353	ISI JCR Science Edition 2013	Software Engineering (0.401)	4
Rius, A., Conesa, J., García, E. Sicilia, M.A (2014) Automating educational processes implementation by means of an ontological framework. Computer Standards & Interfaces, 36(2), 335-348. http://dx.doi.org/10.1016/j.csi.2013.08.003	ISI JCR Science Edition 2014	Software Engineering (0,879)	3
Valiente, M.A., Sicilia, M.A., Garcia-Barriocanal, E., Rajabi, E. (2015) Adopting the metadata approach to improve the search and analysis of educational resources for online learning. Computers in Human Behavior, 51, 1134-1141	ISI JCR Social Science Edition 2015	Social Science: Multidisciplinary (2.880)	1
Martin, D., Sanchez, S., Sicilia, M.A., García, E. (2015) Evaluating the degree of domain specificity of terms in large terminologies: the case of AGROVOC. Online Information review, 39(3), 326 – 345. http://dx.doi.org/10.1108/OIR-02-2015-0052	SI JCR Science Edition 2015	Information Systems (1.152)	3
Martin, D., Sanchez, S., Sicilia, M.A., García, E. (2015) Evaluating the practical applicability of thesaurus-based keyphrase extraction in the agricultural domain: A pilot exploratory study in the VOA3R Project. Knowledge Organization, 42(2), 76-89	ISI JCR Social Science Edition 2016	Social Science: Information Science & Library Science (0.522)	3
Nogales, A., Sicilia, M.A., García E., Sánchez, S. (2016) Linking from Schema.org microdata to the Web of Linked Data: an empirical assessment. Computer Standards & Interfaces, 45, 90-99. http://dx.doi.org/10.1016/j.csi.2015.12.003	ISI JCR Science Edition 2016	Software Engineering (1.366)	2
Nogales, A., Sicilia, M. A., García-Barriocanal, E. (2017) Measuring vocabulary use in the Linked Data Cloud. Online Information Review 41(2), 252-271. https://doi.org/10.1108/OIR-06-2015-0183	ISI JCR Science Edition 2016	Information Systems (1.534)	3
Rius, A., Conesa, J., García-Barriocanal, E., Sicilia, M.A. (2017) An ontology-driven framework for specifying, adapting and implementing educational settings. Applied Ontology,12(1), 33-58. https://doi.org/10.3233/AO-170176	ISI JCR Science Edition 2016	Artificial Intelligence (1.296)	3
Martin, D., García, E., Sicilia, M-A, Stracke, C. M. (2017). Evaluating the concept specialization distance from an end-user perspective: The case of AGROVOC. Online Information Review, 41(6), 860-876. https://doi.org/10.1108/OIR-03-2016-0094	ISI JCR Science Edition 2016	Information Systems (0.918)	3
Samaras, L., García, E., Sicilia, M.A. (2017) Syndromic Surveillance Models Using Web Data: The Case of Influenza in Greece and Italy Using Google Trends. Journal of Medical Internet Research (Public Health Surveillance) 3(4). http://dx.doi.org/10.2196/publichealth.8015	ISI JCR Science Edition 2016	Medical Informatics (5.175)	1
Nogales, A. Sicilia,M.A., Garcia, E. (2018) On the graph structure of the Web of Linked Data. International Journal on Semantic Web and Information Systems, 14(2), 70-85. http://dx.doi.org/10.4018/IJSWIS.2018040104	ISI JCR Science Edition 2018	Artificial Intelligence (1.833)	3
Santos, L., Sicilia, M.A., García, E. (2019) Ontology-Based Modeling of Effect-Based Knowledge in Disaster Response. International Journal on Semantic Web and Information Systems, 15(1), 102-118 https://doi.org/10.4018/IJSWIS.2019010105.	ISI JCR Science Edition 2019	Artificial Intelligence (1,742)	3
Mora, M., Sanchez, S. García, E. (2019) A systematic literature review on Wikidata. Data Technologies and Applications, 53(3), 250-268. https://doi.org/10.1108/DTA-12-2018-0110.	ISI JCR Science Edition 2019	Information systems (0,704)	4
Mora, M., Sicilia, M.A., García, E., Sanchez, S.(2020) Evolution and prospects of the Comprehensive R Archive Network (CRAN) package ecosystem. Journal of Software: Evolution and Process. DOI: 10.1002/smr.2270	ISI JCR Science Edition 2017	Software Engineering (1,178)	3
Samaras, L., García, E., Sicilia, M.A. (2020) Comparing Social media and Google to detect and predict severe epidemics. Scientific Reports, 10(4747). https://doi.org/10.1038/s41598-020-61686-9	ISI JCR Science Edition 2019	Multidisciplinary Science (3.998)	1
Mora, M. Sánchez, S., García, E., Sicilia, M.A. (2020) Authority-based flexible conversation tracking in Twitter: an unattended methodological approach. Applied Sciences 10(9), 3273. https://doi.org/10.3390/app10093273	ISI JCR Science Edition 2019	Multidisciplinary Science (2.474)	2

Mora, M., Sicilia, M.A., García, E., Sanchez, S.(2020) A complex network analysis of the Comprehensive R Archive Network (CRAN) package ecosystem. Journal of Systems and Software, 170, 110744. https://doi.org/10.1016/j.jss.2020.110744	ISI JCR Science Edition 2019	Software Engineering (2.450)	2
Samaras, L., Sicilia, MA. & García-Barriocanal, E. (2021) Predicting epidemics using search engine data: a comparative study on measles in the largest countries of Europe BMC Public Health 21, 100 (2021). https://doi.org/10.1186/s12889-020-10106-8	ISI JCR Science Edition 2019	Public, environmental & occupational health (2,521)	2
Puentes, J., Sanchez, S., Sicilia, MA, García, E. (2021) Predicting length of stay across hospital departments. IEEE Access, 9, 44671-44680. https://doi.org/10.1109/ACCESS.2021.3066562	ISI JCR Science Edition 2019	Information systems (3.745)	1

Listado de proyectos de financiación pública competitiva como investigadora principal

Nombre	Referencia	Cuantía subvención	Duración
MARIA: Medición y Análisis de Recursos para el acceso a la Información y el Aprendizaje	CAM+ UAH (CCG08-UAH/TIC4178)	17.400,00 €	2009
INTEGRA: Fusión y explotación de datos para el control de fronteras no vigiladas	CDTI (CENIT-2008: 1018)	540.033,08 €	2008-2011
eCultura: Desarrollo de una Plataforma Semántica para la Preservación y Explotación de Contenido Cultural	PROFIT Ministerio de Industria (TSI020501-2008-53)	129.887,00 €	2008-2010
SOCIRES: Development of Social Responsibility Training and Certification	EUROPEAN UNION (510098-2010-LLPSI-LEONARDOLMP)	49.285,00 €	2011-2013
VOA³Rr: Virtual Open Access Agriculture & Aquaculture Repository: Sharing Scientific and Scholarly Research related to Agriculture, Food, and Environment	European Union (CIP-ICTPSP.2009.2.4: 250525 - VOA3R)	400.000,00 €	01/06/2010 31/05/2013
Organic.Balkanet: Developing the skills of Organic agricultural for the Balkans	European Union (2009-1-RO1LEO05-03584/LLP-LdV-TOI-2009-RO008)	59.162,00 €	10/12/2009 09/12/2011
agINFRA: A data infrastructure to support agricultural scientific communities Promoting data sharing and development of trust in agricultural sciences	European Union (FP7-2011-2283770	610.000,00 €	01/10/2011 30/09/2014
HEDECAMA: Modelo semántico y algoritmos de Data Mining aplicados al tratamiento del Cáncer de Mama en centros de Atención Especializada	Ministerio de Ciencia e Innovación (IPT2011-1126-900000)	98.135,00 €	01/10/2011 31/03/2014
SLROUTE (Spanish Language Route): Plataforma tecnológica de gestión, soporte y administración de contenidos digitales focalizados a videojuegos educativos tipos NMOG	Ministerio de Industria, Turismo y Comercio (TSI090302-2011-22)	90.062,00 €	01/10/2011 31/03/2014
SemAGROw: Data Intensive Techniques to Boost the Real-Time Performance of Global Agricultural Data Infrastructures	European Union (FP7-318497)	462.981,00 €	01/11/2012 01/11/2015

Listado de contratos como investigadora principal

Nombre	Empresa	Cuantía subvención	Duración
Diseño plataforma de intercambio de información de sistemas de Historia Clínica Electrónica	Alamo Consulting en convocatoria pública PIE de la CAM	56.000,00 €	2009-2010
eAvatar: Búsqueda semántica y análisis del lenguaje natural	Mnemon Consultores	15.000,00 €	26/7/2010 25/7/2011
Desarrollo de un entorno de interoperabilidad semántica para el mando y control militar	Instituto Tecnológico Militar de la Marañosa	32.220,00 €	01/12/2012 30/3/2014
Creación del modelo de expresión de necesidades del proyecto atas (adquisición de talento mediante objetos de aprendizaje semánticos)	XIMDEX	3.630,00 €	11/03/2015 10/12/2015
Mailtrack: intelligent mail delivery	Mailtrack	48.400,00 €	01/12/2014 30/11/2017
Búsqueda semántica y análisis del lenguaje natural	Inneria	17.700,00 €	28/07/2010 27/04/2011

2. MÉRITOS DE DOCENCIA

- Investigadora principal del Proyecto Erasmus+, KA3 Initiatives for policy innovation "PBL3.0: Integrating Learning Analytics and Semantics in Problem Based Learning". 2016-2018 (79.584,0 €)
- Co-investigadora principal del Proyecto Erasmus+, Knowledge Alliances "SME ClusterGrowth". 2021-2023 (84.500,0 €)
- Investigadora de los proyectos Erasmus+, KA2:
    - o "Digital Skills Accelerator" (Miguel A. Sicilia, IP). 2017-2019
    - o "Heal+: Master in Health Informatics" (Salvador Sánchez, IP). 2016-2018
    - o "Data Set – Data skills for business" (Miguel A. Sicilia, IP) 2018-2020
    - o "Digital Wellbeing educators" (Miguel A. Sicilia, IP) 2018-2020
    - o "BEGIN - Blockhain Enabling Growth in New Enterprises" (Miguel A. Sicilia, IP) 2020-2022
    - o "TrustAI - Trustworthy AI" (Marçal Mora, IP) 2020-2022
- Evaluación docente *Muy Favorable* en programa DOCENTIA (2011/12 – 2014/15) y (2015/16-2019-20)

3. MÉRITOS DE GESTIÓN ACADÉMICA

- Cargos unipersonales de gestión:

    11/2008 – 10/2016: Secretaria del departamento de Ciencias de la Computación

    11/2016 – 12/2017: Subdirectora del departamento de Ciencias de la Computación

    02/2015 - : Directora académica de la Oficina de Proyectos Europeos, Vicerrectorado de Investigación y Transferencia
- Coordinación académica:

    2017/18 – 2019/20: Directora del M.U. Analítica del Negocio y Grandes Volúmenes de Datos.

    2014/15: Coordinadora del programa de doctorado Ingeniería de la Información y del Conocimiento.

- Coordinación en investigación:
    2010 - : Journal on Information Science and Engineering (factor de impacto: 0.541)
    2013 - : Journal of Universal Computer Science (factor de impacto: 0. 701)
    2007 - 2021 : Coordinación del grupo de investigación Information Engineering Research Group