

## CURRICULUM VITAE

Dr. JOSÉ LUIS LÁZARO GALILEA

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(Fecha última actualización: mayo, 2022)

### Puesto actual

Catedrático de Universidad  
Universidad de Alcalá  
Departamento de electrónica

### Academic education

Doctor Ingeniero de Telecomunicación. Universidad de Alcalá (1998)  
Ingeniero de Telecomunicación. Universidad Politécnica de Madrid (1992)

### Resumen

El Dr. J.L. Lázaro cuenta con 6 sexenios reconocidos incluyendo uno de transferencia. Es coautor de 68 artículos con índice de impacto (JCR), 54 de ellos en el primer cuartil (Q1). Además, ha publicado múltiples artículos no indexados y más de 150 contribuciones en congresos (peer-reviewed). El Dr. Lázaro es avalista de un programa de doctorado. Ha participado en un total de 43 proyectos de investigación con financiación pública (5 a nivel europeo) todos ellos obtenidos en procesos competitivos, siendo investigador principal en 19 de ellos. También ha participado en 55 contratos de investigación con financiación pública y privada siendo investigador principal en 44 de ellos. Ha patentado 5 invenciones. Ha dirigido 15 tesis doctorales: (5 con mención internacional) Actualmente, Google Scholar ha indexado 223 contribuciones de investigación con un índice h de 22/ índice i1055 y un total de 1969 citas, más de 930 en los últimos 5 años. Es revisor de: ANEP, DGI/AEI, CYTED, y revisor de revistas internacionales de: IEEE, ELSEVIER, ASP, AESTED, MDPI. Ha realizado 13 estancias en el extranjero.

Lleva 37 años impartiendo docencia en la universidad. Participa regularmente en asignaturas de los Programas de Postgrado. Autor de 31 libros docentes y director de más de 60 TFC y TFM. Director de la Cátedra Siemens de Automatización de la UAH. Coordinador de un grupo de Innovación Docente participando en 8 proyectos, 4 de ellos como investigador principal. Ha presentado 10 trabajos en congresos de carácter docente. Tiene el Diploma de Profesor Visitante de la Universidad de Oriente.

En relación con los cargos de gestión ha sido: Secretario de Departamento, Coordinador del Grupo de Investigación Geintra, Vicerrector de Estudiantes y Promoción, Vicerrector de Docencia y Alumnos, Vicerrector de Ordenación Académica y Profesorado, Miembro del Consejo de Gobierno, Presidente de Comisiones del Consejo de Gobierno, etc.

En relación con la cooperación e internacionalización, es coordinador del grupo de cooperación con universidades latinoamericanas, participando desde hace dos décadas en programas de cooperación universitaria de la AECID y responsable de programas de cooperación de la UAH.

Es presidente de comité en los Paneles Internacionales de Expertos para la Acreditación de Universidades del HCÉRES, y también colabora con la Agencia Andaluza del Conocimiento.

### Méritos relevantes (10 últimos años)

#### Algunas publicaciones relevantes en revistas indexadas de investigación "peer review":

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Authors: P. Fernández **JL Lázaro**, A. Gardel, F. Espinosa, I. Bravo, A. Cano

Title: "Differential binary encoding method for calibrating image sensors based on IOFBS"

Journal: Sensors Volume: 12 (4), Pages: initial: 4133 final: 4155 Date: March 2012

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Authors: A. Cano, **J. L. Lázaro**, A. Infante, P. Fernández, Y. Pompa, F. Espinosa.

Title: Using the std. deviation of a region of interest in an image to estimate camera to emitter distance

Journal: Sensors Volume: 12 (5), 5687 Apr/ 2012

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Authors: P. R. Fernández, **J. L. Lázaro**, A. Gardel, I. Bravo, A.E. Cano, C. Luna

Improving the calibration of imag. sensors based on IOFBS, using differential gray-code space encoding

Journal: Sensors Volumen: 12 (7), 9006 .Jul/ 2012

Authors: **J. L. Lázaro**, A. Gardel, I. Bravo

Title: Sensorial systems applied to intelligent spaces

Journal: Sensors Volumen: 12 (8), 10707 Aug/2012

Authors: J. Garcia, A. Gardel, I. Bravo, **JL Lázaro**

Title: "Tracking People Motion Based on Extended Condensation Algorithm"

Journal: IEEE Trans Systems, Man, Cybernetics (A) Vol. 43 (3). Pág 606-618. May, 2013

Authors: J. García; A. Gardel; I. Bravo; **J. Lázaro**; M. Martínez; D. Rodríguez

Title: "Directional People Counter Based On Heads Tracking"

Journal: IEEE Trans. Industrial Electronics Vol 60-9. Pags: 3391- 4000 Date: Sep, 2013.

Authors: A. Cano, **J. L. Lázaro**, A. Infante, P. Fernández, Y. Pompa.

Title: Decoupling intensity radiated by the emitter in distance estimation from camera to ir emitter.

Journal: Sensors Volumen: 13 (6), 7184. Jun/2013

Authors: J. Garcia, A. Gardel, I. Bravo, **JL Lázaro**

Title: Multiple View Oriented Matching Alg. for People Re-identification

Journal: IEEE. Trans Industrial Informatics ISSN:1551-3203 Vol.10 (3) 1841- 1851 Aug/2014

Authors: P. López; R. Fernández-Recio; I. Bravo; A. Gardel; **J.L. Lázaro**; E. Rufo

Title: "Computational Burden from Image Recognition of High Resolution Radar Sensors"

Journal: Sensors MDPI ISSN: 1424-8220 Vol: 13, Nº 4 pp 5381-5402 April/2013

Authors: J. Garcia; A. Gardel; I. Bravo; **J. Lázaro**; M. Martínez; D. Rodríguez

Title: " Directional People Counter Based on Heads Tracking "

Journal: Industrial Electronics, IEEE Trans. ISSN: 0278-0046 Vol: 60(9). 3391- 4000 Sep/2013

Authors: G. Calandrini; A. Gardel; I. Bravo; P. Revenga; **J.L. Lázaro**; F.J. Toledo

Title: "Power Measurement Methods for Energy Efficient Applications"

Journal: Sensors MDPI – ISSN: 1424-8220 Vol: 13, 6 pp 7786-7796 Jun/2013

Authors: J. Garcia; A. Gardel; I. Bravo; **J.L. Lázaro**;

Title: Multiple View Oriented Matching Algorithm for People Re-Identification

Journal: IEEE Trans. Industrial Informatics. /2014

Authors: I. Bravo, C. Vázquez, A. Gardel, **J.L. Lázaro**, E. Palomar.

Title: High level synthesis: FPGA implementation of the Jacobi algorithm to solve the Eigen problem

Journal Mathematical Problems in Engineering. Vol: 2015, 1. Mar/2015

Authors: F. Domingo, **J. L. Lázaro**, A. Wieser, E. Martin, D. Salido, A. de la Llana

Title: Sensor placement determination for range-difference positioning using evolutionary multi-objective optimization

Journal: Expert Systems with Applications, Elsevier Vol: (47), 95. Nov/2016

Authors: D. Rodríguez, **J.L. Lázaro**, I. Bravo, A. Gardel, G. Tsigiotis

Title: Analysis and Calibration of Sources of Electronic Error in PSD Sensor Response

Journal: Sensors (MDPI) - ISSN: 1424-8220 Vol: 16(9) Apr/2016

Authors: D Rodríguez, **J L Lázaro**, IBravo, A Gardel, F Domingo and G. Tsigiotis

Title: Math. Model and Calibration Procedure of a PSD Sensor Used in Local Positioning Systems

Journal: Sensors 2016, Vol 16(9), 1484 Sep/2016

Authors: F. Domingo, **J.L. Lázaro**, I. Bravo, A. Gardel, D. Rodríguez

Title: "Optimization of the Coverage and Accuracy of an Indoor Positioning System With a Variable Number of Sensors"

Journal: Sensors (MDPI) - ISSN: 1424-8220 Vol: 16(11) Jun/2016

Authors: David Salido, Francisco J. Meca, Ernesto Martín and **José L. Lázaro**

Title: SNR Degradation in Undersampled Phase Measurement Systems

Journal: Sensors 2016, Vol 16(10), 1772 Oct/2016

Authors: Bravo-Muñoz, I.; **Lázaro-Galilea**, J.L.; Gardel-Vicente, A.

Title:FPGA and SoC Devices Applied to New Trends in Image/Video and Signal Processing Fields. Journal Electronics 2017, Vol (6), 25. Mar/2017

Authors: A. Llana, **J.L. Lázaro**, A. Gardel, D. Rodríguez, I. Bravo, G. Tsigiotis, J. Iglesias-

Title: "Modeling Infrared Signal Reflections to Characterize Indoor Multipath Propagation"

Journal: Sensors (MDPI) - ISSN: 1424-8220 Vol 17(4) Apr/2017

Authors: Bravo, Ignacio and Palomar, Esther and Gardel, Alfredo and **Lázaro, José**

Title:Trusted and Secure Wireless Sensor Network Designs and Deployments.

Journal Sensors, 17 Vol (8). p. 1787 Aug/2017

Authors: A. Llana, **J.L. Lázaro**, A. Gardel, D. Rodríguez, I. Bravo, G. Tsigiotis, J. Iglesias

Title: "Modeling to Effect of Optical Signal Multipath"

Journal: Sensors (MDPI) - ISSN: 1424-8220 Vol 17(9). Sep/2017

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- Authors: D. Rodriguez, **J.L. Lázaro**, A. Llana, I. Bravo, A. Gardel, G. Tsigiotis, J. Iglesias  
 Title: "IPS based on PSD Detector, Precise Positioning of Agents in Motion using AoA"  
 Journal: Sensors (MDPI) - ISSN: 1424-8220 Vol 17(9)Sep/2017
- 
- Authors: A. Llana, **J.L. Lázaro**, A. Gardel, D. Rodriguez, I. Bravo, F. Espinosa  
 Title: "Characterization Multipath Effects in IPS by AoA and PoA Based on Optical Signals"  
 Journal: Sensors (MDPI) - ISSN: 1424-8220 Vol 19(4). Feb/2019
- 
- Authors: J Berrián, I Bravo, A Gardel, **JL Lázaro**, S Hernández  
 Title: A Wearable Closed-Loop Insulin Delivery System Based on Low-Power SoCs  
 Journal: Electronics 2019, Vol 8 (6), 612 May/2019
- 
- Authors: A. Llana, **J.L. Lázaro**, A. Gardel, D. Rodríguez, B. Rubiano, I. Bravo  
 Title: Analysis of Multiple-Access Discrimination Tech. for the Development of PSD-based VLP System"  
 Journal: Sensors (MDPI) - ISSN: 1424-8220 Vol 20(6) Mar/2020
- 
- Authors: B Rubiano-Muriel, **JL Lázaro-Galilea**, A Gardel-Vicente, Á De-La-Llana-Calvo, , I Bravo-Muñoz Title:  
 Development of an Optical Signal-Based IPS from an MCU-SoC  
 Journal Electronics Vol 9 (5), 782 May/2020
- 
- Authors: A. Llana, D. Salido, **J.L. Lázaro**, A. Gardel, I. Bravo, B. Rubiano  
 Title: "Accuracy and Precision Assessment of AoA-based Indoor Positioning Systems using Infrastructure Lighting and a Position Sensitive Detector"  
 Journal: Sensors (MDPI) Vol 20(18) Mar/2020
- 
- Authors: Bravo-Muñoz, I.; Gardel-Vicente, A.; **Lázaro-Galilea, J.L.**  
 Title: New Applications and Architectures Based on FPGA/SoC.  
 Journal *Electronics*, Vol 9 (11), 1789.Oct/2020
- 
- Authors: Rodriguez-Sanchez, M.C.; Fernández-Jiménez, L.; Jiménez, A.R.; Vaquero, J.; Borromeo, S.; **Lázaro-Galilea, J.L.**  
 Title: HelpResponder—System for the Security of First Responder Interventions.  
 Journal Sensors 2021, 21, 2614. Vol 21(11) Jun/2021
- 
- Authors: Álvaro de la Llana Calvo; **José Luis Lázaro Galilea**; Alfredo Gardel Vicente; David Salido Monzú; Ignacio Bravo Muñoz; Andreea Iamnitchi; Rubén Gil Vera  
 Title: Weak Calibration of a Visible Light Positioning System Based on a Position-Sensitive Detector: Positioning Error Assessment.  
 Journal Sensors *Sensors* **2021**, 21(11), 3924; doi.org/10.3390/s21113924
- 
- Authors: J. Berian, I.Bravo, A.Gardel, **J.L. Lázaro**, M. Rigla  
 Title: "Dynamic Insulin Basal Needs Estimation and Parameters Adjustment for Closed-Loop Control in Type 1 Diabetes"  
 Journal: Sensors (MDPI) - ISSN: 1424-8220 Vol 21(15) Aug/2021
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### **Algunos proyectos de investigación**

**(EU → Europeo, NAC → Nacional, REG → Regional)**

**Project Name: (EU):** Enhancing Skills Intel. And Integration Into Existing Phd Programmes By Providing Transferable Skills Training Through An Open Online Platform Funding Entity: UE H2020 SwafS-2019-1.

Duration, From: 01/01/2020 to: 31/12/2022 Funding Amount: 44.410 € (Total: 990 558,16 €)

Main Researchers: A. Gardel / I. Bravo

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**Project Name: (EU):** "PALAEMON A holistic passenger ship evacuation-rescue ecosystem "

Funding Entity: UE H2020 RIA. UAH Funding Amount: € 152.000 € (Total: 1 M €)

Duration, From: 01/06/2019 to: 31/05/2022

Main Researchers: A. Gardel / I. Bravo

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**Project Name: (EU):** "Promoting Internationalization of Research Through Establishment And Operationalization of Cycle 3 Quality Assurance System In Line With to European Integration" C3QA Funding Entity: European Commission Erasmus+: Higher Education - International Capacity Building

Duration, From: 01/12/2016 to: 30/11/2019 Amount: UAH: 44008 € (total 888.433,33 €)

Main Researcher at UAH: A. Gardel

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**Project Name: (EU):** "European PhD Hub" PHDHUB Funding Entity: Erasmus+ Erasmus+ KA2

Funding Amount: UAH: 102.942 € (total 255.485 €)

Duration, From: 01/09/2017 to: 31/08/2021

Main Researcher at UAH: I. Bravo

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**Project Name (REG)** Indoor Guidance and Location System Using Building Illumination

Funding Entity: Junta de Comunidades de Castilla-La Mancha SBPLY/19/180501/000049

Duration, From: 01/01/2020 to: 31/03/2023 Amount: 91943,00 €

Main Researcher: **José Luis Lázaro** /Alfredo Gardel

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**Project Name: (REG)** Rapid virological diagnosis of Sars-Cov-2 using optoelectronic processes.

Funding Entity: UAH Ref: COVID-19 UAH 2019/00003/016/001/012

Duration, From: 01/06/2020 to 31/12/2020

Participating Entities: Electronic Dept. - UAH Amount: 6900,00 €

Main Researcher: **José Luis Lázaro**

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**Project Name: (REG)** Event-based location and estimation support system for prevention, evacuation and intervention in emergency situations.

Funding Entity: UAH 2018/00231/001

Duration, From: 09/06/2018 to: 08/06/2019

Participating Entities: Electronic Dept. - UAH Amount: 6000,00 €

Main Researcher: **José Luis Lázaro**

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**Project Name: (REG)** Smart-lighting system with security and surv. capabilities, an alternative for smart-cities

Funding Entity: CEISEP Program. Campus of International Excellence URJC-UAH Ref: 2016/CEISEP-001

Duration, From: 01-12-2016 to: 31-12-2017

Participating Entities: Universidad de Alcalá, Universidad Rey Juan Carlos Amount: 51720,00 €

Main Researcher (Coordinator): **José Luis Lázaro**

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**Project Name: (NAC)** Red de posicionamiento y navegación en interiores y exteriores delimitados

Funding Entity: MINECO REDES DE EXCELENCIA Ref. TEC2017-90808-REDT

Duration, From: 01-07-2018 to: 30-06-2021 Amount: 22000,00 €

Participating Entities: UAH, CSIC, UOC, UJI, UGR, UEx, GRADIANT, Deusto Tech, UAB, UM

Main Researcher (Coordinator): **José Luis Lázaro**

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**Project Name: (NAC)** Red de posicionamiento y navegación en interiores

Funding Entity: MINECO REDES DE EXCELENCIA Ref. (TEC2015-71426-REDT)

Duration, From: 01-2016 to: 12-2017 Amount: 30000,00 €

Participating Entities: UAH, CSIC, UEx, UD, UOC, UGr, UJI, GRADIANT

Main Researcher (Coordinator): **José Luis Lázaro**

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**Project Name: (NAC)** Optimization of Wireless Sensor Network and Control Systems Network for Cooperation of Mobile Units in Intelligent Environments. ALCOR.

Funding Entity: MINECO DPI 2013-47347-C2-1-R

Duration: From 01/01/2014 to: 12/31/2017 Amount: € 145200,00 €

Main Researchers: **José Luis Lázaro** F. Espinosa

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**Project Name: (NAC)** Contribution to Intelligent Spaces through the Development and Integration of Positioning Sensors Based on Infrared and Specific Processing Architectures

Funding Entity: Ministry of Science and Innovation Ref Proy: DPI2009-10143

Participating Entities: Electronic Dept. - UAH

Duration, From: 01/01/2010 to: 12/31/2012 Amount: 142780,00 €

Main Researcher: **José Luis Lázaro**

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**Project Name: (NAC)** Training for electronic product development and prototyping

Funding Entity: MINECO (PEJ-2014-A-38020)

Duration, From: 01-09-2019 to: 31-08-2021 Amount: 98532,00 €

Main Researcher **José Luis Lázaro Galilea**

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**Project Name: (NAC)** Training for electronic product development and prototyping

Funding Entity: MINECO (PEJ-2018-004019)

Participating Entities: Universidad de Alcalá

Duration, From: 01-09-2019 to: 31-08-2021 Amount: 42660,00 €

Investigador responsable: **José Luis Lázaro**

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**Project Name:** "Development of a Management System of Electric Vehicles"

Funding Entity: Micinn. Ref Proy: INNFACTO IPT-440000-2010-0020

Participating Entities: Going-Green SL, DAS SL, UAH UAH

Duration, From: 01/12/2010 to: 31/10/2012 Amount: 199,428 €

Main Researcher: **A Gardel**

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**Project Name:** "Application of Adaptive Sampling Techniques to Remote Control of Mobile Units in Intelligent Spaces."

Funding Entity: CAM-UAH. Participating Entities: UAH.

Duration, From: 02/12/2013 to: 01/12/2014 Amount: € 6,000

Main Researcher: **A. Gardel**

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**Project Name:** "Rangefinder-Camera System for Detection of Parking (Teca). "

Funding Entity: Cam-UAH. Participating Entities: UAH. Amount: € 3,000

Duration, From: 05/12/2015 to: 01/12/2016

Main Researcher: **A. Gardel**

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**Project Name:** "Design of an Efficient Hardware Architecture for the Acquisition and Processing of Ultrasonic Images of High Definition In Real Time (Sarus)"

Funding Entity: Cam-UAH. Participating Entities: UAH. Amount: € 40,550

Duration, From: 01/01/2020 to: 31/12/2021

Main Researcher: **C.J. Martín**

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**Project Name:** "GUIA project"

Funding Entity: JCCM. Participating Entities: UAH, Parque Científico-Tecnológico Guadalajara.

Duration, From: 01/01/2020 to: 31/12/2022 Amount: € 91,950

Main Researchers: JL. Lázaro, **A. Gardel**

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## **Participación en actividades de transferencia de tecnología/conocimiento - explotación de resultados**

**Title:** Inhibition signal generation using FPGAs

Company / Financing Administration: INDRA SISTEMAS SA

Participating entities: University of Alcalá

Duration, from: 04- 2018 to: 09-2018. Amount € 15,125

**Researcher responsible:** A. Gardel, JL. Lázaro, I. Bravo

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**Title:** FW Migration for VIRTEX-SPARTAN of CH53 design

Company / Financing Administration: INDRA SISTEMAS SA

Participating entities: University of Alcalá

Duration, from: 04- 2018 to: 09-2018. Amount € 19,360

**Researcher responsible:** A. Gardel, JL. Lázaro, I. Bravo

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**Title:** Development of model for quality test of industrial equipment

Company: SONIBETICA SL

Participating entities: University of Alcalá

Duration, from: 01/09/2013 to: 01/09 / 2014 Amount: € 20 570 €

**Responsible researcher:** A. Gardel, JL. Lázaro, I. Bravo

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**Title:** Development of digital systems and electronic design over reconfigurable HW

Company: INDRA SISTEMAS SA

Participating entities: University of Alcalá

Duration, from: 01/02/2013 to: 01/10 2014 Amount: € 27,830

**Researcher in charge:** A. Gardel, JL. Lázaro, I. Bravo

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**Title:** Research Chair: Smart Things Lab

Company: Advanticsys

Participating entities: University of Alcalá

Duration, from: 01/02/2012 to: 31/01/2015 Amount: € 180,000

**Researcher in charge:** A. Gardel, I. Bravo

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**Title:** Image recognition software

Company: Siemens Spain SA

Participating entities: University of Alcalá

Duration, from: 01/03/2012 to: 01/06/2012 Amount: 11,800 €

**Responsible researcher:** A. Gardel, JL. Lázaro, I. Bravo

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**Title:** Development of test equipment using virtual instrumentation.

Company: INDRA Sistemas S. A

Participating entities: Universidad de Alcalá

Duration, from: 01/11/2011 to: 01/02/2012. Amount: 10 620 €

**Responsible researcher:** A. Gardel, JL. Lázaro, I. Bravo

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**Title:** Implementation of Core PC And Code Migration to Spartan-6

Company / Financing Administration: INDRA SISTEMAS SA

Participating entities: University of Alcalá

Duration, from: 03/11 / 2010 to: 03/02/2011 Amount € 22,500

**Responsible researcher:** A. Gardel, JL. Lázaro, I. Bravo

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**Patent Inventors** (by signature): A. Gardel; J.L. Lázaro; I. Bravo; F. Espinosa

Title: Sistema Y Procedimiento Para La Detección De La Ocupación En Aparcamientos.

Nº de Solicitud: España / Es 2 680 993 B1 Fecha De Concesión: 20.03.2019

Pais De Prioridad: España Entidad Titular: Universidad De Alcalá