

<b>Part A. PERSONAL INFORMATION</b>		<b>CV date</b>	June, 2019
First and Family name	ALFREDO GARDEL VICENTE		
Social Security, Passport, ID number	03107655x	Age	45
Researcher numbers	Researcher ID	R-5727-2016	
	Orcid code	0000-0001-7887-4689	

### A.1. Current position

Name of University/Institution	UNIVERSIDAD DE ALCALA		
Department	DPTO. DE ELECTRÓNICA		
Address and Country	CAMPUS UNIVERSITARIO. ALCALA HENARES. 28005		
Phone number	918856585	E-mail	<a href="mailto:alfredo.gardel@uah.es">alfredo.gardel@uah.es</a>
Current position	Full professor	From	21/12/2017
Espec. cód. UNESCO	3307/1203/3311		
Palabras clave	FPGA, SoC, CPS, IoT, Embedded-design		

### A.2. Education

PhD	University	Year
Doctor Ing. Telecomunicación	EPS-University of Alcala	2004
Language Proficiency in English, Intermediate level of French		

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

- 3 periods of Quality Research Activity ((1997-2002), (2003-2008) and (2009-2014)).
- Main researcher in 13 projects with public financing and 17 contracts with companies;
- Researcher in 37 other projects of public financing and 19 contracts with companies.
- 55 International articles, 40 indexed in JCR (21 in Q1, 10 in Q2, 2 in Q3 and 3 in Q4).
- 20 articles, non-indexed book chapters
- Director of 5 doctoral theses; 4 with mention of international doctorate
- Co-inventor of 5 patents
- ANECA Evaluator.
- Regular reviewer of international journals of: IEEE, ELSEVIER, MDPI, etc.
- Editor of 2 books of Conferences and International
- Journals. Stays research abroad 10 times with a total of 67 weeks.
- Contribution of 45 communications to international congresses and 50 to national congresses.

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

Dr. Alfredo Gardel has been recognized with 3 research periods (sexenios) corresponding to the stretches of the years 1997-2002, 2003-2008 and 2009-2014. He is co-author of 46 articles with impact index (JCR-Science Citation Index), 27 of them in the first quartile, 11 in Q2, 6 in Q3 and 2 in the last quartile. Dr. Alfredo Gardel has participated in a total of 48 research projects subsidized with public funding (5 at European level, 21 at national level and 22 at regional / university level) all obtained in competitive processes, being IP in 6 of them . He has also participated in 36 research contracts with private financing (with an overall amount close to 1 M €) with IP in 15 of them and giving rise to 4 National Patents, plus an additional one under review.

Additionally, it has published another 9 non-indexed articles and 106 congresses (48 international and 58 national / Ibero-American), which unequivocally indicate the spirit of dissemination of knowledge and transfer to society of the results of research, innovation and developments carried out by part of the candidate.

Currently, Google Scholar has 115 jobs indexed with an index-h5 of 15 and a total of 857 citations, 580 of which are publications of the last 5 years. It has obtained a teaching assessment through the DOCENTIA-UAH program of "Very Favorable "on 2 occasions, for the 2008-2012 and 2012-2016 periods. It has recognized 3 quinquennia of teaching activity and

good evaluations in the surveys made to students about their teaching. He is a member of the Teacher Innovation Group UAH-GI11-35 in Industrial Automation, within which he has participated in 7 teaching innovation projects, 4 of them as principal investigator. He is a member of several intra-departmental commissions (extension, permanent, teaching), at the level of the EPS (commission of industrial engineering studies) and member of the cooperation group with Caribbean universities and the University Institute for Research in Police Sciences (UAH). He has made several stays of exchange of teaching experiences (Erasmus). He has presented 9 works in congresses of a teaching nature. Additionally, he has taught summer courses, extra-university training courses, and has many other merits, although of lesser relevance in terms of his teaching activity.

In terms of training, he is a Telecommunications Engineer from the University of Alcalá (UAH, 1995) and a Telecommunication Engineer from the Polytechnic University of Madrid (UPM, 1999). He completed his doctoral thesis within a collaboration agreement between two European universities, obtaining a doctorate degree in both universities with a Cum Laude qualification from the University of Alcalá (Spain) and the Blaise-Pascal University of Clermont-Ferrand (France).

## Part C. RELEVANT MERITS

### C.1. Publications (including books)

Authors (by signature): JL Lázaro; JM Lavest; CA Luna; A. Gardel  
Title: "Sensor for Simultaneous High Accurate Measurements of 3D Points"  
Magazine: Sensor Letters (1546-198x). Vol 4 (4). PAGES: 426-432. Date: December, 2006

Authors (by signature): JL Lazaro, P. Fernandez, A. Gardel, AE Cano, CA Luna  
Title: "Sensor calibration based on incoherent gardo optical fiber bundles used for remote image"  
Sensors Volume: 9 (10), Pages, initial: 8215 final: 8229 Date: Oct. 2009

Authors (by signature): A. Gardel; Bravo, I; Lazaro, JI; Revenga, P;  
Title: "Remote Automation Laboratory Using A Cluster Of Virtual Machines"  
Magazine: IEEE Trans. Industrial Electronics Vol57 (10). Pgs: 3276-3283. Date: October, 2010

Authors (by signature): JL Lázaro, A. Gardel, I. Bravo  
Title: "Sensorial Systems Applied to Intelligent Spaces"  
Magazine: Sensors. Vol: 12 (8), Pages: initial: 10707 final: 10712 Date: Aug. 2012

Authors (by signature): P. Fernández JL Lázaro, A. Gardel, F. Espinosa, I. Bravo, A. Cano  
Title: "Differential binary encoding method for calibrating image sensors based on IOFBS "  
Magazine: Sensors Volume: 12 (4), Pages: initial: 4133 final: 4155 Date: March 2012

Authors (by signature): PR Fernández, JL Lázaro, A. Gardel, I. Bravo, AE Cano, C. Luna  
Title: Improving the calibration of im. sensors based on IOFBS, using dif gray-code space encoding  
Magazine: SENSORS Volume: 12 (7), Pages: initial: 9006 final: 9023 Date: July 2012

Authors (signature): AM Wefky; F. Espinosa; L. Santiago; A. Gardel; P. Revenga; M. Martínez  
Title: "Modeling Radiated Electromagnetic Emissions Electric Motorcycles Driving Profile MLP"  
Journal: Progress in Electromagnetics Research, Vol 135. Pages: 231-244. Date: Jan, 2013

Authors (by signature): J. Garcia, A. Gardel, I. Bravo, JL Lázaro  
Title: "Tracking People Motion Based on Extended Condensation Algorithm"  
Magazine: IEEE Trans Systems, Man, Cybernetics (A) Vol. 43 (3). Pág 606-618. May, 2013

Authors (by signature): J. García; A. Gardel; I. Bravo; J. Lazaro; M. Martinez; D. Rodriguez  
Title: "Directional People Counter Based On Heads Tracking"  
Magazine: IEEE Trans. Industrial Electronics Vol 60-9. Pags: 3391- 4000 Date: Sep, 2013

Authors (by signature): J. Garcia, A. Gardel, I. Bravo, JL Lázaro  
Title: Multiple View Oriented Matching Alg. For People Residentification  
Magazine: IEEE. Trans Ind Informatics ISSN 1551-3203 Vol. 10 (3) Page 1841- 1851 August 2014

## C.2. Research projects and grants

**Title of the Project:** "Recovery and Interpretation of the Information stored in Readers and Keyboards of Fraudulent ATMs Related to Bank Cards."

Funding Entity: IUICP-UAH Amount: 8.100,00 €

Duration, From: 01 / 12/2007 To: 10/30/2009

Principal Researcher: **A. Gardel**,

Number of Participating Researchers: 6. Participation: Principal Investigator

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

Financing Entity: Ministry of Science and Innovation Ref Proy: Dpi2009-10143

Participating Entities: Electronic Dept. - UAH Amount: 142,780 €

Duration, From: 01/01/2010 To: 12/31/2012

Principal Investigator: Dr. Jose Luis Lazaro

Number of Participating Researchers: 8 Participation: Researcher

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**Title of the Project:** "Development of a Management System of Electric Vehicles "

Financing Entity: Micinn. Ref Proy: INNPACTO IPT-440000-2010-0020

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

Amount: 199,428 €

Duration, From: 01/12/2010 To: 31/10/2012

Principal Investigator: Dr. **A Gardel**

Number of Participating Researchers: 5. Participation: Principal Investigator

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

Funding Entity: Cam-UAH. Participating Entities: UAH. Amount: € 6,000

Duration, From: 02/12/2013 To: 01/12/2014

Principal Investigator: **A. Gardel**

Number of Participating Researchers: 5. Participation: Principal Investigator

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**Title:** Optimization of Wireless Sensor Network and Control Systems Network for Cooperation of Mobile Units in Intelligent Environments. ALCOR. DPI 2013-47347-C2-1-R

Financing Entity: Mineco. Economic Amount: € 120000

Principal Investigator: F. Espinosa, JL Lázaro

Duration: 01/01/2014 End Date: 12/31/2016

Number of Participating Researchers: 16. Participation: Researcher

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**Title of the Project:** "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

Principal Investigator: **A. Gardel**

Number of Participating Researchers: 4. Participation: Principal Investigator

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## C.3. Contracts

**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 pci and code migration to spartan-6 (micod)

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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## C.4. Patents

**Inventors** (by signature): PR Fernández; JL Lázaro; **A. Gardel**; I. Bravo; O. Esteban

Title: "System and Methodology for the Transmission of Images through Incoherent Fiber Links"

Application Number: Spain / P200902072. Priority Country: Spain Priority

Date: 10/29/2009

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**Inventors** (by signature): Mr. Pizarro; M. Mazo; FJ Rodríguez; I. Bravo; SE Palazuelos; **A. Gardel**; M. Brown; D. Jiménez

Title: "Sensor System for the Detection of Objects / Obstacles in Critical Points of Rail Lines"

Application Number: Spain / P201000354 Priority Country: Spain

Priority Date: 03/17/2010

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**Inventors** (by signature): **A. Gardel**; JL Lázaro; I. Bravo;

Title: "Intelligent System of Automatic Lighting in the Luminaire of the Roadlights of Tunnels, Highways, Highways and Roads".

Application Number: Spain / P 201000546 Priority Country: Spain Priority

Date: 04/10/2010

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## C.5. Experience in the organization of R&D activities

Dr. Alfredo Gardel has held different individual positions with responsibility in university management: Deputy Director of the Dept. of Electronics (UAH) for 3 years, co-director of the Master in Automation of Industrial Processes for 6 courses (2007-2013), Director of a Research Chair (2012-2015) and Member of the Board of Teaching and Research Staff of the UAH (2010/2014).

He has participated as Main Researcher in 6 research projects, 17 contracts with companies with a global financing of more than 500,000 €. Additionally, He is an ANECA Evaluator in the Panel of Experts for the Accreditation of University Professor, Member of the Academic Committee of the Doctorate in Forensic Sciences (2014-present) and member of the UAH Council during many years at the University of Alcalá.