



## **Alberto Brunete González**

Generated from: Editor CVN de FECYT

Date of document: 18/03/2021

**v 1.4.3**

34d4870c0ef6d7bb4333fb798b007db9

This electronic file (PDF) has embedded CVN technology (CVN-XML). The CVN technology of this file allows you to export and import curricular data from and to any compatible data base. List of adapted databases available at: <http://cvn.fecyt.es/>



## Summary of CV

This section describes briefly a summary of your career in science, academic and research; the main scientific and technological achievements and goals in your line of research in the medium -and long- term. It also includes other important aspects or peculiarities.

Alberto Brunete received his M.S. degree in Telecommunication Engineering and his Ph.D. degree in Robotics and Automation from the Universidad Politécnica de Madrid (UPM) (Spain) in 2000 and 2010, respectively. He is currently Associate Professor at the Escuela Técnica Superior de Ingeniería y Diseño Industrial (ETSIDI), Universidad Politécnica de Madrid, and researcher in the Center for Automation and Robotics (CAR UPM-CSIC). Since 2011, he has been officially teaching in the fields of electronics, automation and robotics, in the degrees of Industrial Engineering, Industrial Electronics and Automation, Mechanical Engineering and Electrical Engineering, and Master in Mechatronics and Master in Automation and Robotics.

His research career has been related to Robotics and Internet of Things. He received a PhD FPI scholarship from the Comunidad de Madrid from 2004-2007. He has been Technical Manager at the Research Center for Smart Buildings and Energy Efficiency (CeDInt-UPM) and Visiting Professor in the Department of System Engineering and Automation at the Carlos III University (Spain), where he has started a Building Automation Lab. In this field he has worked for the SME AtelMedia, leading the home automation department, where he has acquired a deep knowledge of the situation of home and building automation in Spain. He has also worked for the Spanish SME AMETIC as an R&D Consultant. He has done several research stages in Norway (NTNU, 2000), USA (University of Hawaii, 2002), Switzerland (EPFL, 2005) and United Arab Emirates (New York University Abu Dhabi, 2012).

His main research activities are related to robotics and smart environments (ambient intelligence and ambient assisted living), where he has worked in 14 national and European R&D projects as Researcher and Project Manager in the ICT and Robotics fields: SAUVIM, MICROTUB, SPOT, I-SWARM, MICROMULT, PISA, ROBOCITY (I, III and IV), THOFU, SIGLAS, LABXXI, CIUDAD2020, HEPHESTOS, ROBOHEALTH, ROMERIN. He has published more than 50 publications in related journals and conferences (16 JCRs). He has been part of the local organizing committee of IROS 2018. He is Topic Editor of the Sensors Journal and reviewer of top-ranking journals (like Robotic and Autonomous systems, Autonomous Robots, Intelligent and Robotic Systems, Robotics and Computer Integrated Manufacturing). He obtained a certificate of excellence in reviewing from the IEEE in 2013. He is member of the IEEE Robotics and Automation Society. He has been project evaluator in the 2nd ERANet-LAC Transnational Joint Call for Research and Innovation, thematic area "ICT", 2016 call. He is project evaluator in EQA (research agency) since 2016.

From January 2012 he has been collaborating with the Fundación Alzheimer España as an advisor in ICT affairs, and as a coordinator of the working group on home automation for Alzheimer patients "DomAlz". In 2016 he has won the price "ABC Solidario 2016" for a project about a fall detection system for elderly homes.



## General quality indicators of scientific research

This section describes briefly the main quality indicators of scientific production (periods of research activity, experience in supervising doctoral theses, total citations, articles in journals of the first quartile, H index...). It also includes other important aspects or peculiarities.

Sexenios investigación: 2 (último: 2019). Ongoing thesis supervision: 3.

Índice H (Google Scholar): 13

Índice H (Scopus): 10

Citas totales (Google Scholar): 481

Citas totales (Scopus): 289

Publicaciones JCR: 16

Publicaciones JCR Q1/Q2: 9 (9Q1,2Q2)

Publicaciones totales > 50

**Alberto Brunete González**

Surname(s): **Brunete González**  
 Name: **Alberto**  
 DNI:  
 ORCID: **0000-0001-9873-232X**  
 ScopusID: **15761991600**  
 ResearcherID: **J-4182-2012**  
 Date of birth:  
 Gender: **Male**  
 Contact address: **Ronda de Valencia 3**  
 Postcode: **28012**  
 Contact country: **Spain**  
 Contact city: **Madrid**  
 Land line phone: **914524900 - 23405**  
 Email: **alberto.brunete@upm.es**  
 Personal web page: **www.albertobrunete.es**

**Current professional situation**

**Employing entity:** Universidad Politécnica de Madrid      **Type of entity:** University

**Department:** Electricidad, Electrónica, Automática y Física Aplicada, Escuela Técnica Superior de Ingeniería y Diseño Industrial

**Professional category:** Profesor Contratado Doctor

**Start date:** 01/03/2019

**Type of contract:** Temporary employment contract      **Dedication regime:** Full time

**Previous positions and activities**

	<b>Employing entity</b>	<b>Professional category</b>	<b>Start date</b>
<b>1</b>	Universidad Politécnica de Madrid	Profesor Contratado Doctor Interino	12/09/2018
<b>2</b>	Universidad Politécnica de Madrid	Profesor Ayudante Doctor	12/09/2013
<b>3</b>	Universidad Carlos III de Madrid	Profesor Visitante	01/09/2011
<b>4</b>	Centro de Domótica Integral (CeDInt)	Investigador Senior	01/02/2011
<b>5</b>	AMETIC	Consultor I+D	02/03/2009
<b>6</b>	AtelMedia	Jefe de Departamento Domótica	18/06/2007
<b>7</b>	Universidad Politécnica de Madrid	Investigador	11/2003
<b>8</b>	Comverse	Ingeniero de Sistemas	06/05/2002
<b>9</b>	Universidad de Hawaii, EEUU	Investigador	16/02/2001
<b>10</b>	Universidad Politécnica de Madrid	Secretario de departamento	13/01/2016



- 1** **Employing entity:** Universidad Politécnica de Madrid **Type of entity:** University  
**Department:** Ingeniería eléctrica, electrónica, automática y física aplicada  
**Professional category:** Profesor Contratado Doctor Interino **Educational Management (Yes/No):** Yes  
**Start-End date:** 12/09/2018 - 28/02/2019 **Duration:** 5 months - 18 days  
**Type of contract:** Temporary employment contract  
**Field of management activity:** University
- 2** **Employing entity:** Universidad Politécnica de Madrid **Type of entity:** University  
**Department:** Ingeniería eléctrica, electrónica, automática y física aplicada  
**Professional category:** Profesor Ayudante Doctor **Educational Management (Yes/No):** Yes  
**Start-End date:** 12/09/2013 - 11/09/2018 **Duration:** 5 years  
**Type of contract:** Temporary employment contract  
**Field of management activity:** University
- 3** **Employing entity:** Universidad Carlos III de Madrid **Type of entity:** University  
**Department:** Ingeniería de Sistemas y Automática, Escuela Politécnica Superior  
**City employing entity:** Madrid,  
**Professional category:** Profesor Visitante  
**Start-End date:** 01/09/2011 - 31/08/2013 **Duration:** 2 years  
**Type of contract:** Temporary employment contract  
**Dedication regime:** Full time
- 4** **Employing entity:** Centro de Domótica Integral (CeDInt) **Type of entity:** R&D Centre  
**Department:** Universidad Politécnica de Madrid  
**Professional category:** Investigador Senior  
**Start-End date:** 01/02/2011 - 29/02/2012 **Duration:** 1 year  
**Type of contract:** Temporary employment contract  
**Performed tasks:** Supervisor técnico del grupo de eficiencia energética y edificios inteligentes Jefe de proyecto en proyectos de investigación nacionales Cenit, INNPACTO (THOFU, LABXXI, SIGLAS)  
**Applicability in teaching and/or research:** Trabajo en proyectos de investigación en Domótica e Inmótica, Inteligencia artificial, Smartgrids, Smartcities
- 5** **Employing entity:** AMETIC **Type of entity:** Associations and Groups  
**Professional category:** Consultor I+D  
**Start-End date:** 02/03/2009 - 31/01/2011 **Duration:** 1 year - 10 months  
**Performed tasks:** Gestión de proyectos de I+D+i (Avanza, 7ºPM, CIP, etc.: mVIA, E2ERM. Gestión de la secretaría técnica de las plataformas tecnológicas eNEM (Tecnologías Audiovisuales en Red), eMOV (Comunicaciones Inalámbricas), y Plataforma Tecnológica del Agua.
- 6** **Employing entity:** AtelMedia **Type of entity:** Business  
**Professional category:** Jefe de Departamento Domótica **Educational Management (Yes/No):** No  
**Start-End date:** 18/06/2007 - 28/02/2009 **Duration:** 1 year - 8 months  
**Type of contract:** Permanent employment contract  
**Performed tasks:** Gestión, realización y supervisión de proyectos de domótica y hogar digital. Representante en las asociaciones Asimelec (Ahora AMETIC) y Cedom.



**Applicability in teaching and/or research:** Desarrollo de plataforma software de control de hogar digital.

- 7** **Employing entity:** Universidad Politécnica de Madrid **Type of entity:** University  
**Department:** Ingeniería de Sistemas y Automática, E.T.S.I.Industriales  
**Professional category:** Investigador **Educational Management (Yes/No):** Yes  
**Start-End date:** 11/2003 - 06/2007 **Duration:** 3 years - 7 months  
**Type of contract:** Temporary employment contract  
**Performed tasks:** Investigador en proyectos de investigación nacionales (TAMAI, MICROMULT, ROBOCITY) e internacionales (SPOT, PISA). Realización de tesis doctoral.  
**Field of management activity:** University  
**Applicability in teaching and/or research:** Impartición de ponencias y seminarios (en castellano e inglés). Tutor del concurso de robots Cybertech (Diseño y construcción de robot móviles para diferentes pruebas: laberinto, persecución, toros), ETSII, UPM. Ponencias (programación en C) y trabajo de laboratorio. Tutor de proyectos fin de Carrera. Campos de estudio: inteligencia artificial, robótica, micro-robótica, control.
- 8** **Employing entity:** Comverse **Type of entity:** Business  
**Professional category:** Ingeniero de Sistemas  
**Start-End date:** 06/05/2002 - 18/02/2003 **Duration:** 9 months  
**Type of contract:** Permanent employment contract  
**Dedication regime:** Full time  
**Performed tasks:** Ingeniero de sistemas. Implantación y mantenimiento de sistemas de telefonía móvil (buzón de voz y mensajes cortos entre otros) de Vodafone, Telefónica y Amena.
- 9** **Employing entity:** Universidad de Hawaii, EEUU **Type of entity:** University  
**City employing entity:** Honolulu, United States of America  
**Professional category:** Investigador  
**Start-End date:** 16/02/2001 - 15/12/2001 **Duration:** 10 months  
**Type of contract:** Temporary employment contract  
**Dedication regime:** Full time  
**Performed tasks:** Investigador junior en el proyecto SAUVIM: Semi Autonomous Underwater Vehicle for Intervention Missions".  
**Applicability in teaching and/or research:** Campos de estudio: interfaces gráficas, realidad virtual.
- 10** **Employing entity:** Universidad Politécnica de Madrid **Type of entity:** University  
**Department:** Ingeniería eléctrica, electrónica, automática y física aplicada  
**Professional category:** Secretario de departamento **Educational Management (Yes/No):** Yes  
**Start date:** 13/01/2016  
**Field of management activity:** University



## Education

### University education

#### 1st and 2nd cycle studies and pre-Bologna degrees

**University degree:** Higher degree

**Name of qualification:** Ingeniero de Telecomunicación

**City degree awarding entity:** Madrid, Community of Madrid, Spain

**Degree awarding entity:** Universidad Politécnica de Madrid **Type of entity:** University

**Date of qualification:** 2000

**Average mark:** Good

#### Doctorates

**Doctorate programme:** Doctorado en Automática y Robótica

**Degree awarding entity:** Universidad Politécnica de Madrid **Type of entity:** University

**City degree awarding entity:** Madrid, Community of Madrid, Spain

**Date of degree:** 2010

**DEA awarding entity:** Universidad Politécnica de Madrid

**Date DEA was awarded:** 14/10/2004

**European doctorate:** Yes

**Date of certificate:** 13/07/2010

**Thesis title:** Design and Control of Intelligent Heterogeneous Multi-configurable Chained Microrobotic Modular Systems

**Thesis director:** Ernesto Gambao Galán

**Thesis co-director:** Miguel Hernando Gutiérrez

**Obtained qualification:** Sobresaliente Cum Laude

**Recognition of quality:** Yes

### Specialised, lifelong, technical, professional and refresher training (other than formal academic and healthcare studies)

- 1 Training title:** Formación Inicial del Profesorado en el Marco del Espacio Europeo de Educación Superior  
**Awarding entity:** Instituto de Ciencias de la Educación **Type of entity:** University Research Institute  
**End date:** 02/06/2015 **Duration in hours:** 450 hours
- 2 Training title:** Workshop on Scientific Writing  
**Awarding entity:** Instituto de Ciencias de la Educación de la Universidad Politécnica de Madrid **Type of entity:** University  
**End date:** 15/01/2015 **Duration in hours:** 12 hours



- 3 Training title:** Curso de Comunicación en Público  
**Awarding entity:** Eduvoz - UPM  
**End date:** 15/12/2014  
**Type of entity:** Business  
**Duration in hours:** 20 hours
- 4 Training title:** KNX Avanzado  
**Awarding entity:** KNX Association  
**End date:** 20/06/2008  
**Type of entity:** Associations and Groups  
**Duration in hours:** 40 hours
- 5 Training title:** Diseño de Redes Lonworks  
**Awarding entity:** Echelon Corporation  
**End date:** 22/11/2007  
**Duration in hours:** 24 hours
- 6 Training title:** KNX Partner  
**Awarding entity:** KNX Association  
**End date:** 31/10/2007  
**Type of entity:** Associations and Groups  
**Duration in hours:** 40 hours
- 7 Training title:** Diseño de Sistemas de Cableado Estructurado  
**Awarding entity:** Colegio Oficial de Ingenieros de Telecomunicación de Madrid  
**End date:** 10/10/2007  
**Duration in hours:** 12 hours
- 8 Training title:** Media, Content and Service Delivery  
**Awarding entity:** Informa Telecoms and Media  
**End date:** 11/09/2007  
**Type of entity:** Business  
**Duration in hours:** 16 hours
- 9 Training title:** Infraestructuras Comunes de Telecomunicación (ICT)  
**Awarding entity:** Colegio Oficial de Ingenieros de Telecomunicación de Madrid  
**End date:** 22/06/2007  
**Duration in hours:** 16 hours
- 10 Training title:** Gestión de la ciencia y la tecnología  
**Awarding entity:** Dirección General de Universidades e Investigación de la Comunidad de Madrid  
**End date:** 07/04/2006  
**Duration in hours:** 45 hours
- 11 Training title:** Seminario de estrategia profesional  
**Awarding entity:** Dirección General de Universidades e Investigación de la Comunidad de Madrid  
**End date:** 28/03/2006  
**Duration in hours:** 32 hours

## Language skills

Language	Listening skills	Reading skills	Spoken interaction	Speaking skills	Writing skills
German	A1	A1	A1	A1	A1
Italian	A1	A1	A1	A1	A1
French	B1	B1	B1	B1	B1
English	C1	C1	C1	C1	C1



## Teaching experience

### General teaching experience

- 1** **Name of the course:** Sistemas Electrónicos Digitales  
**Type of programme:** Engineering **Type of teaching:** In person theory  
**Type of subject:** Obligatory  
**University degree:** Grado en Ingeniería Electrónica Industrial y Automática  
**Course given:** 4 **Frequency of the activity:** 2  
**Start date:** 2018 **End date:** 2020  
**Type of hours/ ECTS credits:** Hours  
**Hours/ECTS credits:** 75  
**Entity:** Universidad Politécnica de Madrid **Type of entity:** University  
**Faculty, institute or centre:** Escuela Técnica Superior de Ingeniería y Diseño Industrial
- 2** **Type of teaching:** Official teaching  
**Name of the course:** Automatica  
**Type of programme:** Engineering **Type of teaching:** In person theory  
**Type of subject:** Obligatory  
**University degree:** Grado en Ingeniería Eléctrica  
**Start date:** 02/2015 **End date:** 06/2019  
**Type of hours/ ECTS credits:** Hours  
**Hours/ECTS credits:** 30  
**Entity:** Universidad Politécnica de Madrid **Type of entity:** University
- 3** **Type of teaching:** Official teaching  
**Name of the course:** Automática  
**Type of programme:** Engineering **Type of teaching:** Laboratory work  
**Type of subject:** Obligatory  
**University degree:** Grado en Ingeniería Mecánica  
**Start date:** 02/2015 **End date:** 06/2019  
**Type of hours/ ECTS credits:** Hours  
**Hours/ECTS credits:** 7,5  
**Entity:** Universidad Politécnica de Madrid **Type of entity:** University
- 4** **Type of teaching:** Official teaching  
**Name of the course:** Computadores y Programación  
**Type of programme:** Master's degree **Type of teaching:** In person theory  
**Type of subject:** Optional  
**University degree:** Master en Ingeniería Electromecánica  
**Frequency of the activity:** 5  
**Start date:** 2015 **End date:** 2019  
**Type of hours/ ECTS credits:** Hours  
**Hours/ECTS credits:** 9  
**Entity:** Universidad Politécnica de Madrid **Type of entity:** University  
**Faculty, institute or centre:** Escuela Técnica Superior de Ingeniería y Diseño Industrial



- 5** **Type of teaching:** Official teaching  
**Name of the course:** Dirección de proyectos TIC en la edificación e infraestructuras de servicios  
**Type of programme:** Engineering **Type of teaching:** In person theory  
**Type of subject:** Obligatory  
**University degree:** Máster Universitario en Ingeniería de Telecomunicación  
**Start date:** 25/04/2015 **End date:** 18/07/2015  
**Type of hours/ ECTS credits:** Hours  
**Hours/ECTS credits:** 48  
**Entity:** Universidad Europea de Madrid **Type of entity:** University  
**City of entity:** Madrid,
- 6** **Name of the course:** Internet of Things  
**University degree:** Master in International Management  
**Start date:** 19/06/2015 **End date:** 19/06/2015  
**Type of hours/ ECTS credits:** Hours  
**Hours/ECTS credits:** 1,5  
**Entity:** Instituto de Empresa Business School **Type of entity:** Business  
**Subject language:** English
- 7** **Type of teaching:** Official teaching  
**Name of the course:** Informática  
**Type of programme:** Engineering **Type of teaching:** Laboratory work  
**Type of subject:** Obligatory  
**University degree:** Grado en Ingeniería Química  
**Start date:** 02/2015 **End date:** 06/2015  
**Type of hours/ ECTS credits:** Hours  
**Hours/ECTS credits:** 15  
**Entity:** Universidad Politécnica de Madrid **Type of entity:** University
- 8** **Type of teaching:** Official teaching  
**Name of the course:** Informática  
**Type of programme:** Engineering **Type of teaching:** In person theory  
**Type of subject:** Obligatory  
**University degree:** Grado en Ingeniería Química  
**Start date:** 02/2015 **End date:** 06/2015  
**Type of hours/ ECTS credits:** Hours  
**Hours/ECTS credits:** 30  
**Entity:** Universidad Politécnica de Madrid **Type of entity:** University
- 9** **Type of teaching:** Unofficial teaching  
**Name of the course:** Internet de las Cosas  
**Type of programme:** Engineering **Type of teaching:** In person theory  
**Type of subject:** Obligatory  
**University degree:** Master in City Sciences  
**Start date:** 22/01/2015 **End date:** 29/01/2015  
**Type of hours/ ECTS credits:** Hours  
**Hours/ECTS credits:** 6  
**Entity:** Universidad Politécnica de Madrid **Type of entity:** University



- 10** **Type of teaching:** Official teaching  
**Name of the course:** Electrónica  
**Type of programme:** Engineering **Type of teaching:** Laboratory work  
**Type of subject:** Obligatory  
**Assessment type:** Survey  
**University degree:** Grado en Ingeniería Mecánica  
**Start date:** 09/2014 **End date:** 01/2015  
**Type of hours/ ECTS credits:** Hours  
**Hours/ECTS credits:** 30  
**Entity:** Universidad Politécnica de Madrid **Type of entity:** University  
**Assessment entity:** Universidad Politécnica de Madrid  
**Assessment type:** Survey  
**Type of entity:** University  
**Mark obtained:** 4 **Top mark possible:** 5
- 11** **Type of teaching:** Official teaching  
**Name of the course:** Sistemas Electrónicos Industriales  
**Type of programme:** Engineering **Type of teaching:** Laboratory work  
**Type of subject:** Obligatory  
**Assessment type:** Survey  
**University degree:** Grado en Ingeniería Electrónica y Automática  
**Start date:** 09/2014 **End date:** 01/2015  
**Type of hours/ ECTS credits:** Hours  
**Hours/ECTS credits:** 10  
**Entity:** Universidad Politécnica de Madrid **Type of entity:** University  
**Assessment entity:** Universidad Politécnica de Madrid  
**Assessment type:** Survey  
**Type of entity:** University  
**Mark obtained:** 4,5 **Top mark possible:** 5
- 12** **Type of teaching:** Official teaching  
**Name of the course:** Sistemas Electrónicos Industriales  
**Type of programme:** Engineering **Type of teaching:** In person theory  
**Type of subject:** Obligatory  
**Assessment type:** Survey  
**University degree:** Grado en Ingeniería Electrónica y Automática  
**Start date:** 09/2014 **End date:** 01/2015  
**Type of hours/ ECTS credits:** Hours  
**Hours/ECTS credits:** 30  
**Entity:** Universidad Politécnica de Madrid **Type of entity:** University  
**Assessment entity:** Universidad Politécnica de Madrid  
**Assessment type:** Survey  
**Type of entity:** University  
**Mark obtained:** 3,9 **Top mark possible:** 5
- 13** **Type of teaching:** Official teaching  
**Name of the course:** Electrónica  
**Type of programme:** Engineering **Type of teaching:** Laboratory work  
**Type of subject:** Obligatory  
**Assessment type:** Internal assessment  
**University degree:** Grado en Ingeniería Electrónica Industrial y Automática



**Course given:** 3

**Start date:** 01/02/2014

**Type of hours/ ECTS credits:** Hours

**Hours/ECTS credits:** 24

**Entity:** Universidad Politécnica de Madrid

**Faculty, institute or centre:** Escuela Universitaria de Ingeniería Técnica Industrial

**City of entity:** Community of Madrid, Spain

**Assessment type:** Internal assessment

**Mark obtained:** 3,6

**Frequency of the activity:** 1

**End date:** 30/06/2014

**Type of entity:** University

**Top mark possible:** 5

**14 Type of teaching:** Official teaching

**Name of the course:** Informática

**Type of programme:** Engineering

**Type of subject:** Obligatory

**Assessment type:** Survey

**University degree:** Grado en Ingeniería Química / Electronica Industrial y Automatica

**Course given:** 1

**Start date:** 01/02/2014

**Type of hours/ ECTS credits:** Hours

**Hours/ECTS credits:** 24

**Entity:** Universidad Politécnica de Madrid

**Faculty, institute or centre:** Escuela Universitaria de Ingeniería Técnica Industrial

**City of entity:** Community of Madrid, Spain

**Assessment type:** Survey

**Mark obtained:** 3,9

**Subject language:** Spanish

**Type of teaching:** Laboratory work

**Frequency of the activity:** 1

**End date:** 30/06/2014

**Type of entity:** University

**Top mark possible:** 5

**15 Type of teaching:** Official teaching

**Name of the course:** Informática

**Type of programme:** Engineering

**Type of subject:** Obligatory

**Assessment type:** Survey

**University degree:** Grado en Ingeniería Química / Electronica Industrial y Automatica

**Course given:** 1

**Start date:** 01/02/2014

**Type of hours/ ECTS credits:** Hours

**Hours/ECTS credits:** 30

**Entity:** Universidad Politécnica de Madrid

**Faculty, institute or centre:** Escuela Universitaria de Ingeniería Técnica Industrial

**City of entity:** Community of Madrid, Spain

**Assessment entity:** Universidad Politécnica de Madrid

**Assessment type:** Survey

**Mark obtained:** 3,9

**Subject language:** Spanish

**Type of teaching:** Practical work (classroom-problems)

**Frequency of the activity:** 1

**End date:** 30/06/2014

**Type of entity:** University

**Top mark possible:** 5

**16 Type of teaching:** Official teaching

**Name of the course:** Informática

**Type of programme:** Engineering

**Type of subject:** Obligatory

**Assessment type:** Survey

**University degree:** Grado en Ingeniería Química / Electronica Industrial y Automatica

**Type of teaching:** In person theory



**Course given:** 1

**Start date:** 01/02/2014

**Type of hours/ ECTS credits:** Hours

**Hours/ECTS credits:** 30

**Entity:** Universidad Politécnica de Madrid

**Faculty, institute or centre:** Escuela Universitaria de Ingeniería Técnica Industrial

**City of entity:** Community of Madrid, Spain

**Assessment entity:** Universidad Politécnica de Madrid

**Assessment type:** Survey

**Subject language:** Spanish

**Frequency of the activity:** 1

**End date:** 30/06/2014

**Type of entity:** University

**17 Type of teaching:** Official teaching

**Name of the course:** Electrónica

**Type of programme:** Engineering

**Type of subject:** Obligatory

**Assessment type:** Internal assessment

**University degree:** Grado en Ingeniería Mecánica

**Course given:** 3

**Start date:** 12/09/2013

**Type of hours/ ECTS credits:** Hours

**Hours/ECTS credits:** 24

**Entity:** Universidad Politécnica de Madrid

**Faculty, institute or centre:** Escuela Universitaria de Ingeniería Técnica Industrial

**City of entity:** Community of Madrid, Spain

**Assessment type:** Internal assessment

**Mark obtained:** 3,6

**Type of teaching:** Laboratory work

**Frequency of the activity:** 1

**End date:** 31/01/2014

**Type of entity:** University

**Top mark possible:** 5

**18 Type of teaching:** Official teaching

**Name of the course:** Sistemas Electrónicos Industriales

**Type of programme:** Engineering

**Type of subject:** Obligatory

**Assessment type:** Internal assessment

**University degree:** Grado en Ingeniería Electrónica Industrial y Automática

**Course given:** 4

**Start date:** 12/09/2013

**Type of hours/ ECTS credits:** Hours

**Hours/ECTS credits:** 24

**Entity:** Universidad Politécnica de Madrid

**Faculty, institute or centre:** Escuela Universitaria de Ingeniería Técnica Industrial

**City of entity:** Community of Madrid, Spain

**Assessment entity:** Universidad Politécnica de Madrid

**Assessment type:** Internal assessment

**Mark obtained:** 3,9

**Subject language:** Spanish

**Type of teaching:** Laboratory work

**Frequency of the activity:** 1

**End date:** 31/01/2014

**Type of entity:** University

**Top mark possible:** 5

**19 Type of teaching:** Official teaching

**Name of the course:** Sistemas Electrónicos Industriales

**Type of programme:** Engineering

**Type of subject:** Obligatory

**Assessment type:** Internal assessment

**University degree:** Grado en Ingeniería Electrónica Industrial y Automática

**Type of teaching:** In person theory



**Course given:** 4  
**Start date:** 12/09/2013  
**Type of hours/ ECTS credits:** Hours  
**Hours/ECTS credits:** 24  
**Entity:** Universidad Politécnica de Madrid  
**Faculty, institute or centre:** Escuela Universitaria de Ingeniería Técnica Industrial  
**City of entity:** Community of Madrid, Spain  
**Assessment entity:** Universidad Politécnica de Madrid  
**Assessment type:** Internal assessment  
**Mark obtained:** 3,8  
**Frequency of the activity:** 1  
**End date:** 31/01/2014  
**Type of entity:** University  
**Top mark possible:** 5

- 20** **Type of teaching:** Official teaching  
**Name of the course:** APLICACIONES DE LA AUTOMÁTICA EN EDIFICIOS  
**Type of programme:** Engineering  
**Assessment type:** Survey  
**University degree:** Grado en Ingeniería Electrónica Industrial y Automática  
**Frequency of the activity:** 1  
**Start date:** 23/01/2012  
**End date:** 30/06/2013  
**Type of hours/ ECTS credits:** Hours  
**Hours/ECTS credits:** 12  
**Entity:** Universidad Carlos III de Madrid  
**Type of entity:** University  
**Faculty, institute or centre:** Escuela Politécnica Superior  
**Assessment entity:** Universidad Carlos III de Madrid  
**Assessment type:** Survey  
**Type of entity:** University
- 21** **Type of teaching:** Official teaching  
**Name of the course:** APLICACIONES DE LA AUTOMÁTICA EN EDIFICIOS  
**Type of programme:** Engineering  
**Assessment type:** Survey  
**University degree:** Grado en Ingeniería Electrónica Industrial y Automática  
**Frequency of the activity:** 2  
**Start date:** 23/01/2012  
**End date:** 30/06/2013  
**Type of hours/ ECTS credits:** Hours  
**Hours/ECTS credits:** 21  
**Entity:** Universidad Carlos III de Madrid  
**Type of entity:** University  
**Faculty, institute or centre:** Escuela Politécnica Superior  
**Assessment entity:** Universidad Carlos III de Madrid  
**Assessment type:** Survey  
**Type of entity:** University  
**Mark obtained:** 4.31  
**Type of teaching:** Laboratory work  
**Type of entity:** University
- 22** **Type of teaching:** Official teaching  
**Name of the course:** APLICACIONES DE LA AUTOMÁTICA EN EDIFICIOS  
**Type of programme:** Engineering  
**Assessment type:** Survey  
**University degree:** Grado en Ingeniería Electrónica Industrial y Automática  
**Frequency of the activity:** 2  
**Start date:** 23/01/2012  
**End date:** 30/06/2013  
**Type of hours/ ECTS credits:** Hours  
**Hours/ECTS credits:** 21  
**Type of teaching:** In person theory



**Entity:** Universidad Carlos III de Madrid **Type of entity:** University  
**Faculty, institute or centre:** Escuela Politécnica Superior  
**Assessment entity:** Universidad Carlos III de Madrid  
**Assessment type:** Survey  
**Type of entity:** University  
**Mark obtained:** 4.31 **Top mark possible:** 5

**23** **Type of teaching:** Official teaching  
**Name of the course:** Informática Industrial I  
**Type of programme:** Engineering  
**Type of subject:** Obligatory  
**University degree:** Grado en Ingeniería Electrónica Industrial y Automática  
**Start date:** 10/09/2012 **End date:** 25/01/2013  
**Type of hours/ ECTS credits:** Credits  
**Hours/ECTS credits:** 6  
**Entity:** Universidad Carlos III de Madrid **Type of entity:** University  
**Faculty, institute or centre:** Escuela Politécnica Superior

**24** **Type of teaching:** Official teaching  
**Name of the course:** ORGANIZACIÓN DE COMPUTADORES  
**Type of programme:** Engineering **Type of teaching:** In person theory  
**Type of subject:** Obligatory  
**Assessment type:** Survey  
**University degree:** Grado en Ingeniería Informática  
**Frequency of the activity:** 1  
**Start date:** 05/09/2012 **End date:** 21/01/2013  
**Type of hours/ ECTS credits:** Hours  
**Hours/ECTS credits:** 21  
**Entity:** Universidad Carlos III de Madrid **Type of entity:** University  
**Faculty, institute or centre:** Escuela Politécnica Superior  
**Assessment entity:** Universidad Carlos III de Madrid  
**Assessment type:** Survey  
**Type of entity:** University  
**Subject language:** English

**25** **Name of the course:** Informática Industrial C++  
**Type of programme:** Engineering **Type of teaching:** Practical work (classroom-problems)  
**Assessment type:** Survey  
**University degree:** Grado en Ingeniería Electrónica Industrial y Automática  
**Frequency of the activity:** 1  
**Start date:** 01/09/2012 **End date:** 10/01/2013  
**Type of hours/ ECTS credits:** Hours  
**Hours/ECTS credits:** 3  
**Entity:** Universidad Carlos III de Madrid **Type of entity:** University  
**Faculty, institute or centre:** Escuela Politécnica Superior  
**Assessment entity:** Universidad Carlos III de Madrid  
**Assessment type:** Survey  
**Mark obtained:** 4.23 **Top mark possible:** 5  
**Subject language:** English



- 26** **Name of the course:** Informática Industrial C++  
**Type of programme:** Engineering **Type of teaching:** Practical work (classroom-problems)  
**Assessment type:** Survey  
**University degree:** Grado en Ingeniería Electrónica Industrial y Automática  
**Frequency of the activity:** 1  
**Start date:** 01/09/2012 **End date:** 10/01/2013  
**Type of hours/ ECTS credits:** Hours  
**Hours/ECTS credits:** 18  
**Entity:** Universidad Carlos III de Madrid **Type of entity:** University  
**Faculty, institute or centre:** Escuela Politécnica Superior  
**Assessment entity:** Universidad Carlos III de Madrid  
**Assessment type:** Survey  
**Mark obtained:** 4.23 **Top mark possible:** 5
- 27** **Name of the course:** Informática Industrial C++  
**Type of programme:** Engineering **Type of teaching:** In person theory  
**Assessment type:** Survey  
**University degree:** Grado en Ingeniería Electrónica Industrial y Automática  
**Frequency of the activity:** 1  
**Start date:** 01/09/2012 **End date:** 10/01/2013  
**Type of hours/ ECTS credits:** Hours  
**Hours/ECTS credits:** 21  
**Entity:** Universidad Carlos III de Madrid **Type of entity:** University  
**Faculty, institute or centre:** Escuela Politécnica Superior  
**Assessment entity:** Universidad Carlos III de Madrid  
**Assessment type:** Survey  
**Mark obtained:** 3.79 **Top mark possible:** 5
- 28** **Type of teaching:** Official teaching  
**Name of the course:** Informática Industrial  
**Type of programme:** Engineering  
**Type of subject:** Obligatory  
**Assessment type:** Survey  
**University degree:** Ingeniería Industrial  
**Start date:** 23/01/2012 **End date:** 30/06/2012  
**Type of hours/ ECTS credits:** Credits  
**Hours/ECTS credits:** 6  
**Entity:** Universidad Carlos III de Madrid **Type of entity:** University  
**Faculty, institute or centre:** Escuela Politécnica Superior  
**Assessment entity:** Universidad Carlos III de Madrid  
**Assessment type:** Survey  
**Type of entity:** University  
**Mark obtained:** 4 **Top mark possible:** 5
- 29** **Type of teaching:** Official teaching  
**Name of the course:** ORGANIZACIÓN DE COMPUTADORES  
**Type of programme:** Engineering **Type of teaching:** Laboratory work  
**Type of subject:** Obligatory  
**Assessment type:** Survey  
**University degree:** Grado en Ingeniería Informática  
**Frequency of the activity:** 1



**Start date:** 05/09/2011

**End date:** 21/01/2012

**Type of hours/ ECTS credits:** Hours

**Hours/ECTS credits:** 6

**Entity:** Universidad Carlos III de Madrid

**Type of entity:** University

**Faculty, institute or centre:** Escuela Politécnica Superior

**Assessment entity:** Universidad Carlos III de Madrid

**Assessment type:** Survey

**Type of entity:** University

**Mark obtained:** 4.67

**Top mark possible:** 5

**30** **Type of teaching:** Official teaching

**Name of the course:** ORGANIZACIÓN DE COMPUTADORES

**Type of programme:** Engineering

**Type of teaching:** Practical work (classroom-problems)

**Type of subject:** Obligatory

**Assessment type:** Survey

**University degree:** Grado en Ingeniería Informática

**Frequency of the activity:** 1

**Start date:** 05/09/2011

**End date:** 21/01/2012

**Type of hours/ ECTS credits:** Hours

**Hours/ECTS credits:** 21

**Entity:** Universidad Carlos III de Madrid

**Type of entity:** University

**Faculty, institute or centre:** Escuela Politécnica Superior. Sección Colmenarejo

**Assessment entity:** Universidad Carlos III de Madrid

**Assessment type:** Survey

**Type of entity:** University

**Mark obtained:** 4.12

**Top mark possible:** 5

**31** **Type of teaching:** Official teaching

**Name of the course:** ORGANIZACIÓN DE COMPUTADORES

**Type of programme:** Engineering

**Type of teaching:** Practical work (classroom-problems)

**Type of subject:** Obligatory

**Assessment type:** Survey

**University degree:** Grado en Ingeniería Informática

**Frequency of the activity:** 2

**Start date:** 05/09/2011

**End date:** 21/01/2012

**Type of hours/ ECTS credits:** Hours

**Hours/ECTS credits:** 6

**Entity:** Universidad Carlos III de Madrid

**Type of entity:** University

**Faculty, institute or centre:** Escuela Politécnica Superior. Sección Colmenarejo

**Assessment entity:** Universidad Carlos III de Madrid

**Assessment type:** Survey

**Type of entity:** University

**Mark obtained:** 4.12

**Top mark possible:** 5

**32** **Type of teaching:** Official teaching

**Name of the course:** ORGANIZACIÓN DE COMPUTADORES

**Type of programme:** Engineering

**Type of teaching:** Practical work (classroom-problems)

**Type of subject:** Obligatory

**Assessment type:** Survey

**University degree:** Grado en Ingeniería Informática

**Frequency of the activity:** 1



**Start date:** 05/09/2011

**End date:** 21/01/2012

**Type of hours/ ECTS credits:** Hours

**Hours/ECTS credits:** 21

**Entity:** Universidad Carlos III de Madrid

**Type of entity:** University

**Faculty, institute or centre:** Escuela Politécnica Superior

**Assessment entity:** Universidad Carlos III de Madrid

**Assessment type:** Survey

**Type of entity:** University

**Mark obtained:** 4.67

**Top mark possible:** 5

**33** **Type of teaching:** Official teaching

**Name of the course:** ORGANIZACIÓN DE COMPUTADORES

**Type of programme:** Engineering

**Type of teaching:** In person theory

**Type of subject:** Obligatory

**Assessment type:** Survey

**University degree:** Grado en Ingeniería Informática

**Frequency of the activity:** 2

**Start date:** 05/09/2011

**End date:** 21/01/2012

**Type of hours/ ECTS credits:** Hours

**Hours/ECTS credits:** 21

**Entity:** Universidad Carlos III de Madrid

**Type of entity:** University

**Faculty, institute or centre:** Escuela Politécnica Superior. Sección Colmenarejo

**Assessment entity:** Universidad Carlos III de Madrid

**Assessment type:** Survey

**Type of entity:** University

**Mark obtained:** 4.12

**Top mark possible:** 5

**34** **Type of teaching:** Official teaching

**Name of the course:** ORGANIZACIÓN DE COMPUTADORES

**Type of programme:** Engineering

**Type of teaching:** In person theory

**Type of subject:** Obligatory

**Assessment type:** Survey

**University degree:** Grado en Ingeniería Informática

**Frequency of the activity:** 2

**Start date:** 05/09/2011

**End date:** 21/01/2012

**Type of hours/ ECTS credits:** Hours

**Hours/ECTS credits:** 21

**Entity:** Universidad Carlos III de Madrid

**Type of entity:** University

**Faculty, institute or centre:** Escuela Politécnica Superior

**Assessment entity:** Universidad Carlos III de Madrid

**Assessment type:** Survey

**Type of entity:** University

**Mark obtained:** 4.67

**Top mark possible:** 5



## Experience supervising doctoral thesis and/or final year projects

- 1** **Project title:** Modeling and validation of automotive environmental sensors by generative adversarial networks (TFM)  
**Entity:** Universidad Politécnica de Madrid **Type of entity:** University  
**Date of reading:** 2018
- 2** **Project title:** Robot agrícola autónomo para la adquisición de datos en el campo: Parte A (TFM)  
**Entity:** Universidad Politécnica de Madrid **Type of entity:** University  
**Date of reading:** 2018
- 3** **Project title:** Robot agrícola autónomo para la adquisición de datos en el campo: Parte B (TFM)  
**Entity:** Universidad Politécnica de Madrid **Type of entity:** University  
**Date of reading:** 2018
- 4** **Project title:** Diseño de un sistema de IoT basado en IBM Bluemix e implementación en un entorno sanitario (TFM)  
**Entity:** Universidad Politécnica de Madrid **Type of entity:** University  
**Date of reading:** 2017
- 5** **Project title:** Sistema de reconocimiento de palabras dependiente de locutor (TFM)  
**Entity:** Universidad Politécnica de Madrid **Type of entity:** University  
**Date of reading:** 2017
- 6** **Project title:** Plataforma robótica para robot modular de salvamento (TFM)  
**Type of project:** End of course project  
**Entity:** Universidad Politécnica de Madrid **Type of entity:** University  
**Date of reading:** 2016
- 7** **Project title:** Diseño e implementación de un sistema de detección de caídas para hogares de personas mayores  
**Type of project:** End of course project  
**Co-director of thesis:** Miguel Hernando Gutiérrez  
**Entity:** Universidad Politécnica de Madrid **Type of entity:** University  
**Student:** Koldo de Miguel Barredo  
**Obtained qualification:** 10  
**Date of reading:** 17/09/2015
- 8** **Project title:** DISEÑO Y CONSTRUCCIÓN DE UN HELICÓPTERO COAXIAL CONTROLADO SOBRE ANDROID  
**Co-director of thesis:** Miguel Hernando Gutiérrez  
**Entity:** Universidad Politécnica de Madrid **Type of entity:** University  
**Student:** Nicolás Parra Sánchez  
**Obtained qualification:** 10  
**Date of reading:** 16/09/2015
- 9** **Project title:** Interfaz REST para control de sistemas domóticos Z-Wave  
**Type of project:** End of course project  
**Co-director of thesis:** Miguel Hernando Gutiérrez  
**Entity:** Universidad Politécnica de Madrid **Type of entity:** University  
**Student:** Iván Genovés Isidro



**Obtained qualification:** 9  
**Date of reading:** 14/09/2015

- 10** **Project title:** Laboratorio remoto para sistemas de automatización de edificios basados en KNX  
**Type of project:** End of course project  
**Co-director of thesis:** Miguel Hernando Gutiérrez  
**Entity:** Universidad Politécnica de Madrid **Type of entity:** University  
**Student:** Pedro Marín Manzanero  
**Obtained qualification:** 9,5  
**Date of reading:** 14/09/2015
- 11** **Project title:** Monitorización de colmena de abejas  
**Co-director of thesis:** Joan Roig Planells  
**Entity:** Universidad Politécnica de Madrid **Type of entity:** University  
**Student:** Nicolás Jurado Jiménez  
**Obtained qualification:** 9  
**Date of reading:** 14/09/2015
- 12** **Project title:** Diseño e Implementación de una aplicación domótica para enfermos de Alzheimer  
**Type of project:** End of course project  
**Entity:** Universidad Politécnica de Madrid **Type of entity:** University  
**Student:** Manuel Días Sola  
**Obtained qualification:** 9,5  
**Date of reading:** 16/07/2015
- 13** **Project title:** Diseño y construcción de un monocóptero coaxial controlado sobre Android  
**Co-director of thesis:** Miguel Hernando Gutiérrez  
**Entity:** Universidad Politécnica de Madrid **Type of entity:** University  
**Student:** Eduardo Ortega Biber  
**Obtained qualification:** 10  
**Date of reading:** 07/2015
- 14** **Project title:** Cluster de RaspberryPi para la reproducción sincronizada de múltiples señales de video y comandos domóticos  
**Type of project:** End of course project  
**Co-director of thesis:** Miguel Hernando Gutiérrez  
**Entity:** Universidad Politécnica de Madrid **Type of entity:** University  
**Student:** Javier Sepúlveda Peña  
**Obtained qualification:** 10  
**Date of reading:** 02/2015
- 15** **Project title:** DISEÑO E IMPLEMENTACIÓN DE UN SISTEMA DOMÓTICO APLICADO A ENFERMOS DE ALZHEÍMER  
**Type of project:** End of course project  
**Entity:** Universidad Politécnica de Madrid **Type of entity:** University  
**Student:** Alicia Martínez Dimas  
**Obtained qualification:** 10  
**Date of reading:** 02/2015



- 16** **Project title:** Diseño electromecánico de la mano robótica humanoide ManoPla (TFG)  
**Entity:** Universidad Politécnica de Madrid **Type of entity:** University  
**Obtained qualification:** 10  
**Date of reading:** 2015
- 17** **Project title:** BRAZO ROBÓTICO MASAJEADOR DE CABEZA CON IMPRESORA 3D  
**Type of project:** End of course project  
**Entity:** Universidad Politécnica de Madrid **Type of entity:** University  
**Student:** Macarena González Barrios  
**Obtained qualification:** 10  
**Date of reading:** 10/2014
- 18** **Project title:** Sistema de guiado de un robot industrial basado en sensor F/T  
**Type of project:** End of course project  
**Co-director of thesis:** Miguel Hernando  
**Entity:** Universidad Politécnica de Madrid **Type of entity:** University  
**Student:** Rubén Guijarro Escudero  
**Obtained qualification:** 10  
**Date of reading:** 09/2014
- 19** **Project title:** ?DISEÑO Y CONSTRUCCIÓN DE DISPOSITIVOS DOMÓTICOS BASADOS EN EL ESTÁNDAR IEEE 802.15.4  
**Co-director of thesis:** Ernesto Gambao  
**Entity:** Universidad Politécnica de Madrid **Type of entity:** University  
**Student:** Carlos Ucha Lozano  
**Date of reading:** 09/2014
- 20** **Project title:** SISTEMA DE CAPTURA TRIDIMENSIONAL DE PIEZAS PARA UN ROBOT DE FRESADO INTELIGENTE  
**Co-director of thesis:** Miguel Hernando  
**Entity:** Universidad Politécnica de Madrid **Type of entity:** University  
**Student:** Víctor Díaz-Maroto Schori  
**Date of reading:** 09/2014
- 21** **Project title:** Sistema de control y visualización para una vivienda basado en KNX  
**Type of project:** End of course project  
**Entity:** Universidad Carlos III de Madrid **Type of entity:** University  
**Student:** Maria Bajo Fernandez  
**Obtained qualification:** 9  
**Date of reading:** 10/10/2013
- 22** **Project title:** Integracion de un robot en una red de supervision de hogares  
**Type of project:** End of course project  
**Co-director of thesis:** Mohamed Abderrahim Fichouche  
**Entity:** Universidad Carlos III de Madrid **Type of entity:** University  
**Student:** Oscar Pascual García  
**Obtained qualification:** 8.1  
**Date of reading:** 01/10/2013



- 23** **Project title:** Estudio de soluciones domóticas y gestor web para cuidadores de enfermos de Alzheimer  
**Type of project:** End of course project  
**Entity:** Universidad Carlos III de Madrid **Type of entity:** University  
**Student:** Victor Miguel Garcia Rodriguez  
**Obtained qualification:** 9  
**Date of reading:** 24/07/2013
- 24** **Project title:** Tratamiento de imágenes, extracción de características y matching en plataformas android  
**Type of project:** End of course project  
**Entity:** Escuela Politécnica Superior de la Universidad Carlos III de Madrid **Type of entity:** University  
**Student:** Rocío Ortega Olivas  
**Obtained qualification:** Matrícula de Honor (10)  
**Date of reading:** 19/03/2013
- 25** **Project title:** Sistema colaborativo para la divulgación de incidencias ciudadanas basado en Android  
**Type of project:** End of course project  
**Entity:** Escuela Politécnica Superior de la Universidad Carlos III de Madrid  
**Student:** Julio Molinera Ariza  
**Obtained qualification:** Matrícula de Honor (10)  
**Date of reading:** 25/09/2012
- 26** **Project title:** Sistema multimodal de gestión de almacenes basado en ODBC  
**Type of project:** End of course project  
**Entity:** Escuela Politécnica Superior de la Universidad Carlos III de Madrid  
**Student:** Francisco Blázquez Díez  
**Obtained qualification:** Matrícula de Honor (10)  
**Date of reading:** 28/04/2012
- 27** **Project title:** Diseño mecatrónico de un sistema micro-robótico  
**Type of project:** End of course project  
**Co-director of thesis:** Ernesto Gambao Galán  
**Entity:** Universidad Politécnica de Madrid **Type of entity:** University  
**City of entity:** Madrid, Community of Madrid, Spain  
**Student:** José Emilio Torres Matesanz  
**Obtained qualification:** Matrícula de Honor  
**Date of reading:** 07/2008

## Educational or pedagogical publications, books, articles, etc.

- 1** Alberto Brunete González; Pablo San Segundo Carrillo; Rebeca Herrero Martín.  
<http://www.albertobrunete.es/automatica/>. 2020. ISBN 978-84-09-22291-9  
**Name of the materials:** Introducción a la Automatización Industrial  
**Date of drafting:** 2020  
**Format:** Book  
**Corresponding author:** Yes
- 2** Alberto Brunete González; Jorge Artieda; Miguel Hernando Gutiérrez.  
<https://miriadax.net/web/practical-internet-of-things-lot-with-raspberrypi-2-edicion-/inicio>, Curso Online. Miriadax.  
2018.



**Name of the materials:** Curso Practical Internet of Things (IoT) with RaspberryPi  
**Date of drafting:** 2018

- 3** Luis Moreno Lorente; Raúl Pérula-Martínez; Alberto Brunete González; Domingo Guinea García; César Arismendi Gutiérrez; José Carlos Castillo Montoya.  
<http://ocw.uc3m.es/ingenieria-informatica/organizacion-de-computadores>, Open Course Ware UC3M. 2014.  
**Name of the materials:** Curso online OCW Organización de Computadores  
**Date of drafting:** 2014

## Participation in innovative teaching projects

- 1** **Project title:** AIGORA: Aprendizaje de Informática con GitHub Organizado en Repositorios Abiertos  
**Type of participation:** Team member  
**Time of working relationship:** For a limited time  
**Number of participants:** 13  
**Funding entity:** Universidad Politécnica de Madrid      **Type of entity:** University  
**Start-End date:** 01/09/2018 - 31/08/2019      **Duration:** 1 year
- 2** **Project title:** Sistema interactivo de dinamización y seguimiento de clases (SIDISEC)  
**Type of participation:** Team member  
**Time of working relationship:** For a limited time  
**Number of participants:** 10  
**Funding entity:** Universidad Politécnica de Madrid      **Type of entity:** University  
**Start-End date:** 01/09/2017 - 31/08/2018      **Duration:** 1 year
- 3** **Project title:** Portal de laboratorios remotos para la realización de prácticas a distancia  
**Type of participation:** Team member  
**Time of working relationship:** For a limited time  
**Number of participants:** 14  
**Funding entity:** Universidad Politécnica de Madrid      **Type of entity:** University  
**Start-End date:** 01/09/2014 - 31/08/2015      **Duration:** 1 year

## Scientific and technological experience

### Research and development groups/teams

- 1 Name of the group:** Robotics Lab  
**Affiliation entity:** Universidad Carlos III de Madrid  
**Start date:** 01/09/2011  
**Type of entity:** University  
**Duration:** 2 years - 3 months
- 2 Name of the group:** Laboratoire de Systèmes Robotiques  
**Name of principal investigator:** Reymond Clavel  
**Affiliation entity:** École Polytechnique Fédérale de Lausanne  
**Start date:** 15/08/2005  
**Type of entity:** University  
**Duration:** 4 months
- 3 Name of the group:** Grupo de Robótica y Cibernética  
**Name of principal investigator:** Antonio Barrientos  
**Affiliation entity:** Universidad Politécnica de Madrid  
**Start date:** 01/11/2003  
**Type of entity:** University  
**Duration:** 3 years - 8 months
- 4 Name of the group:** Autonomous Systems Lab  
**Name of principal investigator:** Junku Yuh  
**Affiliation entity:** University of Hawaii  
**Start date:** 01/02/2001  
**Type of entity:** University  
**Duration:** 10 months

### Scientific or technological activities

#### R&D projects funded through competitive calls of public or private entities

- 1 Name of the project:** RoboCity2030-IV-CM: "Robótica aplicada a la mejora de la calidad de vida de los ciudadanos, fase IV"  
**Entity where project took place:** Universidad Politécnica de Madrid  
**City of entity:** Madrid, Community of Madrid, Spain  
**Nº of researchers:** 8  
**Funding entity or bodies:** Comunidad de Madrid  
**Type of entity:** R&D  
**Start-End date:** 2019 - 2023  
**Total amount:** 194.326,53 €
- 2 Name of the project:** ROMERIN: Robot Modular Escalador para la Inspección de Infraestructuras  
**Entity where project took place:** Universidad Politécnica de Madrid  
**Type of entity:** University  
**Name principal investigator (PI, Co-PI....):** Miguel Hernando; Ernesto Gambao; Alberto Brunete González; José María Sebastián; Luis Dávila  
**Nº of researchers:** 6  
**Funding entity or bodies:**



Ministerio de Economía, Industria y Competitividad **Type of entity:** State agency

**Code according to the funding entity:** DPI2017-85738-R

**Start-End date:** 01/01/2018 - 30/09/2021

**Total amount:** 90.000 €

**3 Name of the project:** RoboCity2030-III-CM: desarrollo de sistemas robóticos para el bienestar de los ciudadanos y la mejora de su calidad de vida, fase III

**Entity where project took place:** Universidad Politécnica de Madrid **Type of entity:** University

**City of entity:** Madrid, Community of Madrid, Spain

**Nº of researchers:** 8

**Funding entity or bodies:**

Comunidad de Madrid

**Type of entity:** R&D

**Start-End date:** 2014 - 2018

**Total amount:** 153.871,87 €

**4 Name of the project:** RoboHealth: Desarrollo de robots de asistencia y de rehabilitación para la mejora de la calidad de vida de los pacientes

**Degree of contribution:** Researcher

**Entity where project took place:** Universidad Politécnica de Madrid **Type of entity:** University

**Name principal investigator (PI, Co-PI...):** Ernesto Gambao Galán

**Funding entity or bodies:**

Ministerio de Economía y Competitividad, Modalidad "Retos Investigación"

**Type of participation:** Team member

**Name of the programme:** Retos Investigación 2013

**Code according to the funding entity:** DPI2013-47944-C4-2-R

**Start-End date:** 01/09/2014 - 31/08/2017

**Duration:** 4 years

**Participating entity/entities:** FUNDACION IMDEA MATERIALES; Universidad Carlos III de Madrid; Universidad Rey Juan Carlos

**Total amount:** 81.070 €

**Sub-project amount:** 81.070 €

**Percentage as grant:** 100

**Dedication regime:** Part time

**5 Name of the project:** HEPHESTOS: Hard Material Small-Batch Industrial Machining Robot

**Identify key words:** Service robots

**Geographical area:** European Union

**Degree of contribution:** Researcher

**Entity where project took place:** Universidad Politécnica de Madrid **Type of entity:** University

**City of entity:** Madrid, Spain

**Name principal investigator (PI, Co-PI...):** Ernesto Gambao Galán

**Funding entity or bodies:**

Comisión Europea

**Type of entity:** FP7

**City funding entity:** Madrid, Community of Madrid, Spain

**Type of participation:** Others

**Name of the programme:** FP7

**Code according to the funding entity:** FP7-2012-NMP-ICT-FoF-314739

**Start-End date:** 01/09/2012 - 01/09/2015

**Duration:** 3 years - 2 months



**Participating entity/entities:** Comau; EasyRob; Fraunhofer-Gesellschaft; G-Robots; JOT Automation; ME GMBH; Universitet i Adger

**Total amount:** 3.356.761 €

**Sub-project amount:** 3.356.761 €

**Percentage as grant:** 300.152

**Dedication regime:** Part time

**Applicant's contribution:** Desarrollo de nuevos métodos de fabricación robótica y mecanizado de materiales duros, enfocado a la eficiencia en el coste y a lotes pequeños. Desarrollo de nuevos interfaces de control y HRI. Desarrollo de nuevos paradigmas de programación visual. Sistemas de control de robots en tiempo real (de COMAU)

**6 Name of the project:** CIUDAD2020: Hacia un nuevo modelo de ciudad inteligente sostenible

**Geographical area:** National

**Degree of contribution:** Scientific coordinator

**Entity where project took place:** Centro de Domótica Integral

**Type of entity:** R&D Centre

**City of entity:** Madrid, Community of Madrid, Spain

**Name principal investigator (PI, Co-PI....):** Claudio Feijoo González

**Funding entity or bodies:**

Ministerio de Ciencia e Innovación

**Type of entity:** CDTI

**City funding entity:** Madrid, Community of Madrid, Spain

**Name of the programme:** INNPRONTA

**Code according to the funding entity:** IPT-20111006

**Start-End date:** 01/10/2011 - 28/02/2012

**Duration:** 4 years - 1 month

**Participating entity/entities:** ATOS ORIGIN SAE; DAEDALUS - DATA, DECISIONS AND LANGUAGE, S.A.; FERROVIAL, S.A.; Fagor; Fractalia; GFI; ISOCO INNOVA SAU; Indra; Tekia

**Total amount:** 16.945.048 €

**Percentage as grant:** 212.000

**Dedication regime:** Part time

**Applicant's contribution:** Responsable técnico y experto en redes de sensores y actuadores, domótica e inmótica. CIUDAD2020 pretende lograr un avance en las áreas de eficiencia energética, Internet del futuro, Internet de las cosas, comportamiento humano, sostenibilidad medioambiental y movilidad y transporte, con el objetivo de diseñar la ciudad del futuro, sostenible, inteligente y eficiente.

**7 Name of the project:** LABXXI: Desarrollo de Edificios Flexibles, Industrializados y Ecotecnológicos para los Laboratorios del Siglo XXI

**Geographical area:** National

**Degree of contribution:** Scientific coordinator

**Entity where project took place:** Centro de Domótica Integral

**Type of entity:** R&D Centre

**City of entity:** Madrid, Community of Madrid, Spain

**Name principal investigator (PI, Co-PI....):** Asunción Santamaría Galdón

**Funding entity or bodies:**

Ministerio de Ciencia e Innovación. Investigación

**Type of entity:** Subdirección General de Estrategias de Colaboración Público-Privada

**City funding entity:** Madrid, Community of Madrid, Spain

**Name of the programme:** INNPACTO

**Code according to the funding entity:** IPT-380000-2010-2

**Start-End date:** 01/02/2011 - 28/02/2012

**Duration:** 3 years

**Participating entity/entities:** AMETSLAB ARQUITECTURAS MODULARES ECOTECNOLOGICAS SL; Fundación MAITE; HIB

**Total amount:** 2.015.849 €



**Percentage as grant:** 336.062

**Dedication regime:** Part time

**Applicant's contribution:** Su objetivo es desarrollar un sistema de construcción modular para los laboratorios de investigación. El diseño del sistema se centra en la optimización de los recursos y el medio ambiente, la integración de la flexibilidad (reubicación y reutilización de espacios), la industrialización (sistema modular), las tecnologías ambientales (eficiencia energética, uso de energías renovables y de bajo impacto ambiental) y la seguridad. Se ha innovado en la red inalámbrica de sensores (luz y agua de consumo, de presencia, de ruido, temperatura, humedad relativa, iluminación, puertas y ventanas que se abren, el humo y las inundaciones) y actuadores (control de la iluminación, la calefacción por suelo radiante, aire acondicionado y persianas) controlado por una plataforma de gestión.

**8 Name of the project:** SIGLAS: Sistema Inteligente de Gestión Energética en Edificios Basado en Tecnologías Radioglass

**Geographical area:** National

**Degree of contribution:** Scientific coordinator

**Entity where project took place:** Centro de Domótica Integral

**Type of entity:** R&D Centre

**City of entity:** Madrid, Community of Madrid, Spain

**Name principal investigator (PI, Co-PI....):** Asunción Santamaría Galdón

**Funding entity or bodies:**

Ministerio de Industria, Energía y Turismo

**Type of entity:** SECRETARÍA DE ESTADO DE TELECOMUNICACIONES Y PARA LA SOCIEDAD DE LA INFORMACIÓN

**City funding entity:** Madrid, Community of Madrid, Spain

**Name of the programme:** AVANZA

**Code according to the funding entity:** TSI-020302-2010-118

**Start-End date:** 01/02/2011 - 28/02/2012

**Duration:** 2 years - 6 months

**Participating entity/entities:** AGENCIA ANDALUZA DE LA ENERGIA; AMETSLAB ARQUITECTURAS MODULARES ECOTECNOLOGICAS SL; EB Consultores; INTELLIGLASS S.L.; RLA; Separator; Zona de Expertos

**Total amount:** 2.915.417 €

**Percentage as grant:** 251.994

**Dedication regime:** Part time

**Applicant's contribution:** Este proyecto busca nuevas estrategias para la optimización y reducción del consumo de energía en los edificios, y su objetivo es recopilar datos de los flujos de energía en ellos. Para ello, se ha desarrollado una red de control para la medición de los consumos y analiza el comportamiento y la eficiencia de estos sistemas. Desarrollo de la red de monitorización, diseño e implementación de una red de sensores y un software de monitorización.

**9 Name of the project:** THOFU: Tecnologías del Hotel del Futuro

**Geographical area:** National

**Degree of contribution:** Scientific coordinator

**Entity where project took place:** Centro de Domótica Integral

**Type of entity:** R&D Centre

**City of entity:** Madrid, Community of Madrid, Spain

**Name principal investigator (PI, Co-PI....):** Claudio Feijoo González

**Funding entity or bodies:**

Ministerio de Ciencia e Innovación. Investigación

**Type of entity:** CDTI

**City funding entity:** Madrid, Community of Madrid, Spain

**Name of the programme:** CENIT

**Code according to the funding entity:** CEN-20101019

**Start-End date:** 01/02/2011 - 28/02/2012

**Duration:** 3 years - 4 months



**Participating entity/entities:** ANDAGO INGENIERÍA, S.L.; Asociación Industrial de Óptica, Color e Imagen; Atos Origin Iberia; DAEDALUS - DATA, DECISIONS AND LANGUAGE, S.A.; Deimos Space, S.L.; EMKA; FUNDACIÓN IMDEA ENERGIA; Fractalía; GIGLE SEMICONDUCTOR S.L.; Inerza; Informatica Gesfor; PARADIGMA TECNOLÓGICO SLU; Robotiker - Tecnalia; SACYR VALLEHERMOSO SA; T-SYSTEMS ITC IBERIA SA; TREELOGIC TELEMÁTICA Y LÓGICA RACIONAL PARA LA EMPRESA EUROPEA, S.L

**Total amount:** 23.417.849 €

**Percentage as grant:** 302.813

**Dedication regime:** Part time

**Applicant's contribution:** Responsable técnico y experto en redes de sensores y actuadores, domótica e inmótica. Se ha investigado en el campo de la eficiencia energética, en el control de consumo de energía y la gestión del agua, y en WSN, en nuevos dispositivos conectados inteligentes y accesibles. Su objetivo final es establecer las bases tecnológicas para el desarrollo de un nuevo concepto de hotel, lo que permite hacer frente a los programas de la estacionalidad turística y de fidelidad al hacer ofertas atractivas y diferentes.

**10 Name of the project:** ROBOCITY 2030 I: Robots de Servicios para la mejora de vida de los ciudadanos en áreas metropolitanas

**Geographical area:** Regional

**Degree of contribution:** Researcher

**Entity where project took place:** Universidad Politécnica de Madrid

**Type of entity:** University

**City of entity:** Madrid, Community of Madrid, Spain

**Name principal investigator (PI, Co-PI....):** Rafael Aracil Santoja

**Funding entity or bodies:**

Comunidad de Madrid

**Type of entity:** otros

**City funding entity:** Madrid, Community of Madrid, Spain

**Code according to the funding entity:** S-0505/DPI/000176

**Start-End date:** 31/12/2005 - 31/12/2009

**Duration:** 4 years

**Participating entity/entities:** Centro superior de investigaciones científicas CSIC; Universidad Nacional de Educación a Distancia; Universidad Carlos III de Madrid; Universidad Rey Juan Carlos; Universidad de Alcalá

**Total amount:** 897.507,75 €

**Sub-project amount:** 183.098 €

**Applicant's contribution:** El objetivo de Robocity2030 es el desarrollo innovador e integración de aplicaciones de robots de servicio, en un esfuerzo por aumentar la calidad de vida de los ciudadanos en las áreas metropolitanas.

**11 Name of the project:** MICROMULT: Sistemas Micro-robóticos Multiconfigurables

**Geographical area:** National

**Degree of contribution:** Researcher

**Entity where project took place:** Universidad Politécnica de Madrid

**Type of entity:** University

**City of entity:** Madrid, Community of Madrid, Spain

**Name principal investigator (PI, Co-PI....):** Ernesto Gambao Galán

**Funding entity or bodies:**

MINISTERIO DE EDUCACION Y CIENCIA

**City funding entity:** Spain

**Name of the programme:** Plan Nacional de I+D+i

**Code according to the funding entity:** C05050507

**Start-End date:** 31/12/2005 - 31/12/2008

**Duration:** 3 years

**Total amount:** 144.704 €

**Dedication regime:** Part time



**Applicant's contribution:** Diseño y construcción de un sistema modular micro-robótico heterogéneo multi-configurable capaz de moverse en ambientes estrechos (tuberías o pequeñas cavidades). Todos los módulos han sido desarrollados a partir de cero e incluyen actuadores (servomotores) y electrónica (microcontroladores más sensores). Se ha propuesto un arquitectura de control inteligente basado en el comportamiento de este tipo de robots. Se ha desarrollado un software de simulación.

**12 Name of the project:** PISA: Flexible Assembly Systems through Work-Place Sharing and Time-Sharing Human-Machine Cooperation

**Geographical area:** European Union

**Degree of contribution:** Researcher

**Entity where project took place:** Universidad Politécnica de Madrid

**Type of entity:** University

**City of entity:** Madrid, Spain

**Name principal investigator (PI, Co-PI....):** Ernesto Gambao Galán

**Funding entity or bodies:**

Comisión Europea

**Type of entity:** FP6

**City funding entity:** Madrid, Community of Madrid, Spain

**Name of the programme:** FP6

**Code according to the funding entity:** NMP2-2006-026697

**Start-End date:** 01/09/2006 - 30/06/2007

**Duration:** 4 years

**Participating entity/entities:** Comau; EADS CRC; EICAS; Fraunhofer-Gesellschaft; Fundación Fatronik; Pi4\_Robotics; Senur; Volkswagen

**Total amount:** 6.995.366 €

**Sub-project amount:** 536.814 €

**Dedication regime:** Part time

**Applicant's contribution:** Desarrollo de nuevas formas de cooperación entre robots y de compartición de espacios entre personas y robots para cadenas de montaje industriales. Desarrollo de nuevas formas de interacción humano robot e interfaces (HMI).

**13 Name of the project:** I-SWARM: Intelligent Small World Autonomous Robots for Micro-manipulation

**Type of project:** Research and development, including transfer

**Geographical area:** European Union

**Degree of contribution:** Researcher

**Entity where project took place:** École Polytechnique Fédérale de Lausanne

**Type of entity:** University

**City of entity:** Lausanne, Switzerland

**Name principal investigator (PI, Co-PI....):** Jean-Marc Breguet

**Funding entity or bodies:**

Comisión Europea

**Type of entity:** FP6

**City funding entity:** Madrid, Community of Madrid, Spain

**Name of the programme:** FP6

**Code according to the funding entity:** FP6-IST-2002-507006

**Start-End date:** 15/08/2005 - 15/12/2005

**Participating entity/entities:** Fraunhofer; Scuola superiore de Sant'Anna; Universidad de Uppsala; Universidad Karl-Franzens de Graz; Universidad Sheffield Hallam; Universidad de Atenas; Universidad de Karlsruhe; Universidad de Stuttgart; Universitat de Barcelona

**Total amount:** 4.400.000 €

**Dedication regime:** Full time

**Applicant's contribution:** El objetivo del proyecto I-SWARM es la realización de un "verdadero" enjambre de micro-robot. Más de un centenar de robots autónomos micro-manufacturados serán capaces de la ejecución colectiva de diferentes tareas en el mundo pequeño. El resultado es la realización de un efecto de auto-organización observable en el enjambre de robot similar a la observada en otros sistemas ecológicos tales como las colonias de hormigas y de abejas, así como otros insectos sociales. Desarrollo y prueba de



algoritmos de localización basados ??en la proyección de imágenes codificadas (compuesto de imágenes en blanco y negro) en dos fotodiodos colocados en los robots.

- 14** **Name of the project:** SPOT: Automatic Surface Pollution Detection  
**Degree of contribution:** Researcher  
**Entity where project took place:** Universidad Politécnica de Madrid **Type of entity:** University  
**City of entity:** Madrid, Spain  
**Name principal investigator (PI, Co-PI....):** Erensto Gambao Galán  
**Funding entity or bodies:** Comisión Europea **Type of entity:** CRAFT  
**City funding entity:** Madrid, Community of Madrid, Spain  
**Name of the programme:** CRAFT  
**Code according to the funding entity:** CRAFT-1999-71236  
**Start-End date:** 01/11/2003 - 31/01/2005 **Duration:** 2 years  
**Participating entity/entities:** Alphalas; BCB INFORMATICA Y CONTROL SL; MENASA; Oceanor  
**Total amount:** 650.922 € **Sub-project amount:** 650.922 €  
**Percentage as grant:** 193.259  
**Dedication regime:** Part time  
**Applicant's contribution:** Sistema de detección automática de polución en aguas superficiales, basado en la fluorescencia de sustancias contaminantes. Diseño de la boya y del equipo hardware de detección y monitorización.
- 15** **Name of the project:** MICROROB: Desarrollo de un Microrobot Autónomo para Exploración de Tuberías y Conductos  
**Geographical area:** National  
**Degree of contribution:** Researcher  
**Entity where project took place:** Universidad Politécnica de Madrid **Type of entity:** University  
**City of entity:** Madrid, Community of Madrid, Spain  
**Name principal investigator (PI, Co-PI....):** Ernesto Gambao Galán  
**Funding entity or bodies:** Ministerio de Ciencia y Tecnología **Type of entity:** State agency  
**Name of the programme:** CICYT  
**Code according to the funding entity:** TIC2001-3838-C03-03  
**Start-End date:** 01/11/2003 - 28/12/2004 **Duration:** 3 years  
**Participating entity/entities:** INASMET Tecnalia  
**Sub-project amount:** 43.023 €  
**Applicant's contribution:** Diseño y construcción de un sistema modular micro-robótico heterogéneo para inspección de tuberías.
- 16** **Name of the project:** SAUVIM: Semi Autonomous Underwater Vehicle for Intervention Missions  
**Geographical area:** National  
**Degree of contribution:** Researcher  
**Entity where project took place:** Universidad de Hawaii **Type of entity:** University  
**City of entity:** Honolulu, United States of America  
**Name principal investigator (PI, Co-PI....):** Junku Yuh  
**Funding entity or bodies:** Office of Naval Research (ONR) **Type of entity:** State agency  
**City funding entity:** Honolulu, United States of America



**Start-End date:** 01/02/2001 - 15/12/2001

**Sub-project amount:** 10.000.000 €

**Applicant's contribution:** Vehículo submarino semi autónomo de inspección de profundidades marinas. Desarrollo de interfaces de telecontrol.

## R&D non-competitive contracts, agreements or projects with public or private entities

- 1 Name of the project:** Embedded system for water quality monitoring  
**Degree of contribution:** Coordinator of total project, network or consortium  
**Nº of researchers:** 3  
**Funding entity or bodies:**  
AQUADATA

**Start date:** 01/12/2020 **Duration:** 3 months  
**Total amount:** 2.000 €
- 2 Name of the project:** Desarrollo de una aplicación de estimulación psico-cognitiva para enfermos de Alzheimer  
**Degree of contribution:** Coordinator of total project, network or consortium  
**City of entity:** Spain  
**Nº of researchers:** 4  
**Funding entity or bodies:**  
Fundación Alzheimer España **Type of entity:** Foundation

**Start date:** 01/02/2019 **Duration:** 10 months  
**Total amount:** 29.000 €
- 3 Name of the project:** Clic and Fish: diseño y desarrollo de un prototipo autónomo para la medición y monitorización de las condiciones ambientales en entornos fluviales  
**Degree of contribution:** Coordinator of total project, network or consortium  
**Nº of researchers:** 2  
**Funding entity or bodies:**  
AQUADATA

**Start date:** 01/02/2017 **Duration:** 11 months  
**Total amount:** 15.000 €
- 4 Name of the project:** Hammer: Programming Interface for Industrial Robots  
**Degree of contribution:** Researcher  
**City of entity:** Spain  
**Nº of researchers:** 3  
**Funding entity or bodies:**  
EasyRob **Type of entity:** Business

**Start date:** 08/04/2016 **Duration:** 6 months  
**Total amount:** 29.000 €



## Results

### Technological results derived from specialized and transfer activities, not included in previous sections

**Description:** Responsable del grupo DomAlz: Domótica aplicada al Alzheimer

**Name of the principal Investigator (PI):** Jacques Selmes

**Name of the Co-principal investigator (Co-PI):** Alberto Brunete González

**Degree of contribution:** Scientific coordinator

**New techniques or equipment:** Yes

**Geographical area:** National

**Collaborating entity or bodies:**

Fundación Alzheimer España

**Type of entity:** Foundation

**City collaborating entity:** Madrid, Community of Madrid, Spain

**Start date:** 01/11/2011

**Duration:** 1 year

## Scientific and technological activities

### Scientific production

**1 H index:** 13  
**Date of application:** 01/03/2021  
**Fuente de Índice H:** GOOGLE SCHOLAR

**2 H index:** 10  
**Date of application:** 01/03/2021  
**Fuente de Índice H:** SCOPUS

### Publications, scientific and technical documents

**1 Mercedes Alonso; Alberto Brunete; Miguel HERNANDO; Ernesto Gambao. Background-Subtraction Algorithm Optimization for Home Camera-Based Night- Vision Fall Detectors. IEEE Access. 7, pp. 152399 - 152411. 18/10/2019. ISSN 2169-3536**

**DOI:** 10.1109/ACCESS.2019.2948321

**Type of production:** Scientific paper

**Format:** Journal

**Corresponding author:** Yes

**Impact source:** SCOPUS

**Category:** COMPUTER SCIENCE (MISCELLANEOUS)

**Impact index in year of publication:** 0.609

**Journal in the top 25%:** Yes

**Position of publication:** 42

**No. of journals in the cat.:** 254

**Impact source:** ISI

**Category:** ENGINEERING, ELECTRICAL AND ELECTRONIC

**Impact index in year of publication:** 3,705

**Journal in the top 25%:** Yes

**Position of publication:** 61

**No. of journals in the cat.:** 266

**Relevant publication:** Yes



- 2** Alberto Brunete Gonzalez; Miguel Hernando Gutierrez; Ernesto Gambao Galan. Offline GA-based optimisation for heterogeneous modular multi-configurable chained micro-robots. Transactions on Mechatronics. 18, pp. 578 - 585. IEEE, 2013. Available on-line at: <10.1109/TMECH.2012.2220560>. ISSN 1083-4435  
**Type of production:** Scientific paper **Format:** Journal  
**Corresponding author:** Yes  
**Impact source:** ISI **Category:** ENGINEERING, MANUFACTURING  
**Impact index in year of publication:** 2,878 **Journal in the top 25%:** Yes  
**Position of publication:** 1 **No. of journals in the cat.:** 39  
**Relevant publication:** Yes
- 3** Raquel Cedazo; Alberto Brunete González; Hugo Albarracín; Esteban González. Open-Design for a Smart Cover of a Night-Time Telescope for Day-Time Use. Sensors. 21 - 4, pp. 4405. MDPI, 06/02/2021. ISSN 1424-8220  
**DOI:** 10.3390/s21041138  
**Type of production:** Scientific paper **Format:** Journal  
**Position of signature:** 2  
**Total no. authors:** 4  
**Impact source:** ISI **Category:** Q1  
**Impact index in year of publication:** 3,275 **Journal in the top 25%:** Yes  
**Position of publication:** 15 **No. of journals in the cat.:** 64
- 4** Miguel Hernando Gutiérrez; Virgilio Gomez; Alberto Brunete González; Ernesto Gambao Galán. CFD Modelling and Optimization Procedure of an Adhesive System for a Modular Climbing Robot. Sensors. 21 - 4, pp. 4405. MDPI, 05/02/2021. ISSN 1424-8220  
**DOI:** 10.3390/s21041117  
**Type of production:** Scientific paper **Format:** Journal  
**Position of signature:** 3  
**Total no. authors:** 4  
**Impact source:** ISI **Category:** Q1  
**Impact index in year of publication:** 3,275 **Journal in the top 25%:** Yes  
**Position of publication:** 15 **No. of journals in the cat.:** 64
- 5** Diego Guffanti Martínez; Alberto Brunete González; Miguel Hernando Gutiérrez; Javier Rueda; Enrique Navarro Cabello. The Accuracy of the Microsoft Kinect V2 Sensor for Human Gait Analysis. A Different Approach for Comparison with the Ground Truth. Sensors. 20 - 16, pp. 4405. MDPI, 07/07/2020. ISSN 1424-8220  
**DOI:** 10.3390/s20164405  
**Type of production:** Scientific paper **Format:** Journal  
**Position of signature:** 2  
**Total no. authors:** 5  
**Impact source:** ISI **Category:** Q1  
**Impact index in year of publication:** 3,275 **Journal in the top 25%:** Yes  
**Position of publication:** 15 **No. of journals in the cat.:** 64
- 6** Diego Guffanti Martínez; Alberto Brunete González; Miguel Hernando Gutiérrez. Non-Invasive Multi-Camera Gait Analysis System and its Application to Gender Classification. IEEE Access. 8, pp. 95734 - 95746. IEEE, 18/05/2020. ISSN 2169-3536  
**DOI:** 10.1109/ACCESS.2020.2995474  
**Type of production:** Scientific paper **Format:** Journal  
**Position of signature:** 2

**Total no. authors:** 3**Impact source:** ISI**Impact index in year of publication:** 3,745**Position of publication:** 61**Corresponding author:** No**Category:** Engineering Electrical and Electronic**Journal in the top 25%:** Yes**No. of journals in the cat.:** 266

- 7** Raquel Cedazo; Esteban González; Miquel Serra-Ricart; Alberto Brunete González. Improving the results of citizen science projects through reputation systems: the case of Wolf's number experiment. IEEE Access. 8, IEEE, 2020. ISSN 2169-3536

**DOI:** 10.1109/ACCESS.2020.2995474**Type of production:** Scientific paper**Position of signature:** 4**Total no. authors:** 4**Impact source:** ISI**Impact index in year of publication:** 3,745**Position of publication:** 61**Format:** Journal**Corresponding author:** No**Category:** Engineering Electrical and Electronic**Journal in the top 25%:** Yes**No. of journals in the cat.:** 266

- 8** Alberto Brunete; Ernesto Gambao; Stefan Anton; Aldo Bottero; Miguel Hernando; Dragoljub Surdilovic; Geir Hovland; Ilya Tyapin; Knut Berg Kaldestad; Tapio Heikkilä; Jukka Koskinen. Hard material small-batch industrial machining robot. Robotics and Computer-Integrated Manufacturing. 54, pp. 185 - 199. 12/2018. ISSN 0736-5845

**DOI:** 10.1016/j.rcim.2017.11.004**Type of production:** Scientific paper**Position of signature:** 1**Total no. authors:** 11**Impact source:** ISI**Impact index in year of publication:** 4,392**Position of publication:** 5**Format:** Journal**Category:** ROBOTICS**Journal in the top 25%:** Yes**No. of journals in the cat.:** 26

- 9** Nikolaos Mavridis; Byung-chull Bae; Alberto Brunete; Sandra Costa. Emotional Storytelling using Virtual and Robotic Agents. International Journal of Humanoid Robotics. 15 - 3, World Scientific, 15/03/2018. ISSN 0219-8436

**DOI:** 10.1142/S0219843618500068**Type of production:** Scientific paper**Corresponding author:** Yes**Impact source:** ISI**Impact index in year of publication:** 1.286**Position of publication:** 21**Category:** ROBOTICS**No. of journals in the cat.:** 26

- 10** Koldo de Miguel; Alberto Brunete; Miguel Hernando; Ernesto Gambao. Home Camera-Based Fall Detection System for the Elderly. Sensors. 17 - 12, pp. 2864. 09/12/2017.

**DOI:** 10.3390/s17122864**Type of production:** Scientific paper**Impact source:** ISI**Impact index in year of publication:** 2.475**Position of publication:** 16**Format:** Journal**Category:** Science Edition - INSTRUMENTS & INSTRUMENTATION**No. of journals in the cat.:** 61

- 11** Alberto Brunete; Avinash Ranganath; Sergio Segovia; Javier Perez de Frutos; Miguel Hernando; Ernesto Gambao. Current trends in reconfigurable modular robots design. International Journal of Advanced Robotic Systems. 14 - 3, pp. 0 - 21. Sage, 2017. ISSN 1729-8814

**Type of production:** Scientific paper



**Position of signature:** 1

**Corresponding author:** Yes

**Impact source:** ISI

**Impact index in year of publication:** 0,952

**Position of publication:** 23

**Category:** Science Edition - ROBOTICS

**No. of journals in the cat.:** 26

- 12** Alberto Brunete Gonzalez; Carlos Mateo; Miguel Hernando; Ernesto Gambao; Jukka Koskinen; Jari M Ahola; Tuomas Seppälä; Tapio Heikkilä. User-friendly task level programming based on an online walk-through teaching approach. *Industrial Robot: An International Journal*. 43 - 2, pp. 153 - 163. 2016. ISSN 0143-991x

**DOI:** 10.1108/IR-05-2015-0103

**Type of production:** Scientific paper

**Position of signature:** 1

**Total no. authors:** 8

**Impact source:** ISI

**Impact index in year of publication:** 0.863

**Position of publication:** 23

**Format:** Journal

**Corresponding author:** Yes

**Category:** ROBOTICS

**No. of journals in the cat.:** 26

- 13** Jose Pardeiro; Javier V. Gomez; Alberto Brunete Gonzalez; Frode Eika Sandnes. Evolutionary Optimization Algorithms for Sunlight-Based Positioning Sensor Networks. *International Journal of Distributed Sensor Networks*. 2014, Hindawi, 17/12/2014.

**Type of production:** Scientific paper

**Impact source:** ISI

**Impact index in year of publication:** 0.665

**Position of publication:** 106

**Format:** Journal

**Category:** COMPUTER SCIENCE, INFORMATION SYSTEMS

**No. of journals in the cat.:** 139

- 14** Alberto Brunete Gonzalez; Rocio Martinez; Angel Martin; Jacques Selmes Van Den Bril. La domótica al servicio de los enfermos de Alzheimer y sus cuidadores. *Bit*. 197, pp. 75 - 77. Colegio Oficial de Ingenieros de Telecomunicación, 06/2014.

**Type of production:** Scientific paper

**Format:** Journal

- 15** Alberto Brunete Gonzalez; Miguel Hernando Gutiérrez; Ernesto Gambao Galan. A Simulation Environment for Bio-Inspired Heterogeneous Chained Modular Robots. *International Journal of Advanced Robotic Systems*. INTECH, 01/01/2014. ISSN 1729-8806

**Type of production:** Scientific paper

**Impact source:** SCOPUS

**Impact index in year of publication:** 0.325

**Position of publication:** 91

**Impact source:** ISI

**Impact index in year of publication:** 0.526

**Position of publication:** 20

**Format:** Journal

**Category:** Computer Science (miscellaneous)

**No. of journals in the cat.:** 192

**Category:** ROBOTICS

**No. of journals in the cat.:** 23

- 16** Alberto Brunete González; Miguel Hernando Gutierrez; Ernesto Gambao Galán; Jose Emilio Torres Matesanz. A behaviour-based control architecture for heterogeneous modular, multi-configurable, chained micro-robots. *Robotics and Autonomous Systems*. 60 - 12, pp. 1607 - 1624. Elsevier, 2013. ISSN 0921-8890

**Type of production:** Scientific paper

**Corresponding author:** Yes

**Impact source:** SCOPUS

**Impact index in year of publication:** 1,52

**Format:** Journal

**Category:** Computational Mechanics

**Journal in the top 25%:** Yes



**Position of publication:** 5

**No. of journals in the cat.:** 70

**Impact source:** ISI

**Category:** ROBOTICS

**Impact index in year of publication:** 1.807

**Position of publication:** 9

**No. of journals in the cat.:** 21

- 17** Alberto Brunete González; Miguel Hernando Gutierrez; Jose Emilio Torres Matesanz; Ernesto Gambao Galán. Heterogenous Multi-cofigurable Chained Micro-robot for Exploration of Small Cavities. Automation in Construction Magazine. 21, pp. 184 - 198. Elsevier, 2012. ISSN 0926-5805

**DOI:** 10.1016/j.autcon.2011.06.003

**Type of production:** Scientific paper

**Format:** Journal

**Impact source:** ISI

**Category:** CONSTRUCTION & BUILDING TECHNOLOGY

**Impact index in year of publication:** 1.820

**Journal in the top 25%:** Yes

**Position of publication:** 9

**No. of journals in the cat.:** 57

- 18** Alberto Brunete González; Jose Emilio Torres Matesanz; Miguel Hernando Gutierrez; Ernesto Gambao Galán. A Proposal for a Multi-Drive Heterogeneous Modular Pipe-Inspection Micro-Robot. International Journal of Information Acquisition (IJIA). 5 - 2, pp. 111 - 126. WorldScientific, 2008. ISSN 0219-8789

**Type of production:** Scientific paper

**Format:** Journal

- 19** Miguel Hernando; Alberto Brunete; Diego Guffanti. Human Gait Analysis Using Non-Invasive Methods with a ROS-Based Mobile Robotic Platform. New Trends in Medical and Service Robotics. Mechanisms and Machine Science. 93, Springer, 2020. ISBN 978-3-030-58104-6

**DOI:** 10.1007/978-3-030-58104-6\_35

**Type of production:** Book chapter

**Format:** Book

- 20** Ernesto Gambao; Alberto Brunete Gonzalez; Miguel Hernando; Carlos Mateo. Hephestos: Hard Material Small-Batch Industrial Machining Robot. 13th Robocity2030 Workshop on EU projects results in the frame of the Madrid's regional robotic hub Robocity2030. pp. 21 - 30. Universidad Carlos III de Madrid, 2015. ISBN 978-84-608-4160-9

**Type of production:** Book chapter

**Format:** Book

- 21** Ernesto Gambao; Alberto Brunete Gonzalez; Miguel Hernando. Pisa: Flexible Assembly Systems through Workplace-Sharing and Time-Sharing Human Machine Cooperation. 13th Robocity2030 Workshop on EU projects results in the frame of the Madrid's regional robotic hub Robocity2030. pp. 39 - 48. Universidad Carlos III de Madrid, 2015. ISBN 978-84-608-4160-9

**Type of production:** Book chapter

**Format:** Book

- 22** Alberto Brunete González; Rocío Martínez García. Towards a Smart Digital Home Operating System in the Internet of Things. Beyond Sensor and Actuator Networks. 11th Workshop on Social Robots. 1, pp. 265 - 277. Universidad Carlos III, 2013. ISBN 978-84-695-7212-2

**Type of production:** Book chapter

**Format:** Book

- 23** Alberto Brunete González; Jose Emilio Torres Matesanz; Miguel Hernando Gutierrez; Ernesto Gambao Galán. Arquitectura para robots modulares multiconfigurables heterogéneos de tipo cadena. Arquitecturas de control para robots. pp. 151 - 167. Universidad Politécnica de Madrid, 2007. ISBN 978-84-7484-196-1

**Type of production:** Book chapter

**Format:** Book



## Works submitted to national or international conferences

- 1** **Title of the work:** ROMERIN: A Modular Climber Robot for Infrastructure Inspection  
**Name of the conference:** Joint Conference 8th IFAC Symposium on Mechatronic Systems (MECHATRONICS 2019), and 11th IFAC Symposium on Nonlinear Control Systems (NOLCOS 2019)  
**Type of event:** Conference **Geographical area:** European Union  
**Type of participation:** Participatory - oral communication  
**Corresponding author:** No  
**City of event:** Viena, Austria  
**Date of event:** 04/09/2019  
**End date:** 06/09/2019  
**Organising entity:** IFAC  
**City organizing entity:** Madrid, Spain  
**Type of contribution:** Scientific paper  
Miguel HERNANDO; Alberto Brunete; Ernesto Gambao. 52 - 15, pp. 424 - 429. 04/09/2019. ISSN 2405-8963  
**DOI:** <https://doi.org/10.1016/j.ifacol.2019.11.712>
- 2** **Title of the work:** A Dynamic-booster and Attendance-tracking App For Classroom Teaching  
**Name of the conference:** 11th annual International Conference of Education, Research and Innovation (ICERI2018)  
**Type of event:** Conference  
**Corresponding author:** Yes  
**City of event:** Sevilla, Spain  
**Date of event:** 12/11/2018  
**End date:** 14/11/2018  
**Organising entity:** International Academy of Technology, Education and Development (IATED)  
**City organizing entity:** Madrid, Spain  
**Type of contribution:** Scientific paper  
Raquel Cedazo; Alberto Brunete. pp. 1827 - 1833.  
**DOI:** [10.21125/iceri.2018.1404](https://doi.org/10.21125/iceri.2018.1404)
- 3** **Title of the work:** Expert-Guided Kinodynamic RRT Path Planner for Non-Holonomic Robots  
**Name of the conference:** 2018 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS2018)  
**Type of event:** Conference  
**City of event:** Madrid, Spain  
**Date of event:** 01/10/2018  
**End date:** 05/10/2018  
**Organising entity:** IEEE  
**City organizing entity:** Madrid, Spain  
Jose Maria Sanz; Miguel Hernando; Guillermo Zaragoza; Alberto Brunete. pp. 6540 - 6545.  
**DOI:** [10.1109/IROS.2018.8594453](https://doi.org/10.1109/IROS.2018.8594453)
- 4** **Title of the work:** Hammer: Robot Programming Interface for Common People  
**Name of the conference:** 2018 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS2018)  
**Type of event:** Conference  
**City of event:** Madrid, Spain  
**Date of event:** 01/10/2018



**End date:** 05/10/2018

**Organising entity:** IEEE

**City organizing entity:** Madrid, Spain

Ernesto Gambao; Miguel Hernando; Alberto Brunete. pp. 5539 - 5539.

**DOI:** 10.1109/IROS.2018.8594453

**5 Title of the work:** Robohealth: Smart Room Interface for Hospital Patients

**Name of the conference:** 2018 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS2018)

**Type of event:** Conference

**City of event:** Madrid, Spain

**Date of event:** 01/10/2018

**End date:** 05/10/2018

**Organising entity:** IEEE

**City organizing entity:** Madrid, Spain

Marcos Sacristan; Alberto Brunete; Miguel Hernando; Ernesto Gambao. En: Workshop: "Robots for Assisted Living".

**6 Title of the work:** Fall prediction environment for elderly people based on gait analysis

**Name of the conference:** EUROGEN2017: International Conference on Evolutionary and Deterministic Methods for Design Optimization and Control with Applications to Industrial and Societal Problems

**Type of event:** Conference

**Corresponding author:** Yes

**City of event:** Madrid, Spain

**Date of event:** 13/09/2017

**End date:** 15/09/2017

**Organising entity:** Universidad Politécnica de Madrid

**Type of entity:** R&D Centre

**Type of contribution:** Scientific paper

Alberto Brunete González; Ernesto Gambao Galán; Miguel Hernando Gutiérrez.

**7 Title of the work:** Improving HRI in Industrial Robots

**Name of the conference:** The 26th IEEE International Symposium on Robot and Human Interactive Communication, RO-MAN 2017

**Type of event:** Conference

**City of event:** Lisboa, Portugal

**Date of event:** 01/09/2017

**Organising entity:** IEEE

Alberto Brunete González.

**8 Title of the work:** MICRO-ROBOT PARA INSPECCIÓN DE TUBERÍAS

**Name of the conference:** Jornadas de Automática

**Type of participation:** Participatory - oral communication

**City of event:** Madrid,

**Date of event:** 07/09/2016

**Organising entity:** COMITE ESPAÑOL DE AUTOMATICA DE LA IFAC

**City organizing entity:** Madrid,

Tamara Canelo; Ernesto Gambao Galan; Alberto Brunete Gonzalez; Miguel Hernando Gutierrez. "XXXVII Jornadas de Automática". pp. 575 - 580. ISBN 978-84-617-4298-1



- 9** **Title of the work:** Remote lab for KNX building automation systems  
**Name of the conference:** 8th annual International Conference of Education, Research and Innovation, ICERI2015  
**Corresponding author:** Yes  
**City of event:** Sevilla,  
**Date of event:** 16/11/2015  
**End date:** 18/11/2015  
**Organising entity:** IATED  
Pedro Marín; Alberto Brunete Gonzalez; Raquel Cedazo; Luis Dávila. pp. 4989 - 4997. ISBN 978-84-608-2657-6
- 10** **Title of the work:** Interfaces móviles adaptados para personas mayores  
**Name of the conference:** 6º Congreso Nacional CENTAC de Tecnologías de la Accesibilidad  
**Corresponding author:** Yes  
**City of event:** Bilbao, Spain  
**Date of event:** 05/11/2015  
**Organising entity:** Fundacion CENTAC  
**Type of entity:** Foundation  
Alberto Brunete González.
- 11** **Title of the work:** Electrónica de consumo inteligente en el hogar y domótica  
**Name of the conference:** 5º Congreso Nacional CENTAC de Tecnologías de la Accesibilidad  
**City of event:** Málaga,  
**Date of event:** 15/10/2014  
**End date:** 16/10/2014  
**Organising entity:** Fundacion CENTAC
- 12** **Title of the work:** An Android Based Application for End-User Industrial Robot Programming  
**Name of the conference:** International Conference on Mechatronic and Embedded Systems and Applications  
**Type of event:** Conference  
**Type of participation:** Participatory - oral communication  
**City of event:** Senigallia, Italy  
**Date of event:** 10/09/2014  
**End date:** 12/09/2014  
**Organising entity:** IEEE/ASME  
**With external admission assessment committee:** Yes  
**Type of contribution:** Scientific paper  
Carlos Mateo; Alberto Brunete González; Ernesto Gambao Galán; Miguel Hernando Gutiérrez.
- 13** **Title of the work:** Integration of Low-Cost Supervisory Mobile Robots In Domestic Wireless Sensor Networks  
**Name of the conference:** International Conference on Robotics And Emerging Allied Technologies In Engineering  
**Type of event:** Conference  
**Type of participation:** Participatory - oral communication  
**City of event:** Islamabad, Pakistan  
**Date of event:** 24/04/2014  
**Organising entity:** IEEE  
**With external admission assessment committee:** Yes  
**Type of contribution:** Scientific paper  
**Geographical area:** Non EU International  
**Reasons for participation:** Review before acceptance  
**Type of entity:** Associations and Groups



Mohamed Abderrahim; Alberto Brunete Gonzalez; Oscar Pascual. pp. 259 - 264. ISBN 978-1-4799-5131-4

- 14** **Title of the work:** Smart Environments and The Internet of Things: From Technology to User Experience  
**Name of the conference:** International Conference on Robotics And Emerging Allied Technologies In Engineering

**Type of event:** Conference

**Geographical area:** Non EU International

**Type of participation:** Participatory - invited/keynote talk

**City of event:** Islamabad, Pakistan

**Date of event:** 24/04/2014

**Organising entity:** IEEE

**Type of entity:** Associations and Groups

**With external admission assessment committee:** Yes

Alberto Brunete Gonzalez. pp. 259 - 264. ISBN 978-1-4799-5131-4

- 15** **Title of the work:** La importancia de las TICs en la vida cotidiana de las personas con enfermedad de Alzheimer y de sus familiares

**Name of the conference:** Primer congreso de ayuda tecnologica para mayores y dependientes

**Type of event:** Conference

**Geographical area:** National

**Type of participation:** Participatory - invited/keynote talk **Reasons for participation:** Representing talk

**City of event:** SAN JOSE DEL VALDERAS - ALCORCON (MADRID), Community of Madrid, Spain

**Date of event:** 25/06/2013

**Organising entity:** AVISAD

**Type of entity:** Business

Alberto Brunete Gonzalez.

- 16** **Title of the work:** Towards an Empathizing and Adaptive Storyteller System

**Name of the conference:** 2012 AIIDE Workshop

**Type of event:** Conference

**Geographical area:** Non EU International

**Type of participation:** Participatory - poster

**Reasons for participation:** Review before acceptance

**City of event:** United States of America

**Date of event:** 2012

**Organising entity:** AAAI PRESS

**City organizing entity:** Palo Alto, United States of America

Byung Chull Bae; Alberto Brunete González; Usman Malik; Evanthia Dimara; Jermsak Jermsurawong; Nikolaos Mavridis. "AAAI Technical Report WS-12-14". pp. 63 - 65. ISBN 978-1-57735-585-4

- 17** **Title of the work:** MDL: A Module Description Language for Chained Heterogeneous Modular Robots

**Name of the conference:** 2011 IEEE International Conference on Robotics and Biomimetics (ROBIO)

**Type of event:** Conference

**Type of participation:** Participatory - oral communication

**Reasons for participation:** Review before acceptance

**City of event:** Phuket, Thailand

**Date of event:** 2011

**Organising entity:** IEEE

**Type of contribution:** Scientific paper

Alberto Brunete González; Miguel Hernando Gutiérrez; Ernesto Gambao Galán; Jose Emilio Torres Matesanz; Alvaro Castro González. pp. 2706 - 2711. ISBN 978-1-4577-2136-6

- 18** **Title of the work:** Redes de sensores inalámbricos

**Name of the conference:** II Congreso de Hogar Digital

**Type of event:** Conference

**Reasons for participation:** Upon invitation



**Type of participation:** Participatory - invited/keynote talk

**City of event:** Madrid, Community of Madrid, Spain

**Date of event:** 2011

**Organising entity:** AMETIC

**Type of entity:** Associations and Groups

Alberto Brunete González. Available on-line at: <[http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&ved=0CDMQFjAA&url=http%3A%2F%2Fwww.aetg.org%2Fsites%2Fdefault%2Ffiles%2Fametic-libro-2-congreso-hogar-digital\\_1.pdf&ei=wMCiUO6TAcaGhQefmIC4DQ&usq=AFQjCNErKcqVEwG3A2w0tmmZlSHzLtPfmG](http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&ved=0CDMQFjAA&url=http%3A%2F%2Fwww.aetg.org%2Fsites%2Fdefault%2Ffiles%2Fametic-libro-2-congreso-hogar-digital_1.pdf&ei=wMCiUO6TAcaGhQefmIC4DQ&usq=AFQjCNErKcqVEwG3A2w0tmmZlSHzLtPfmG)>.

**19 Title of the work:** Multi-Drive Control for In-Pipe Snakelike Heterogeneous Modular Micro-Robots

**Name of the conference:** IEEE International Conference on Robotics and Biomimetics (ROBIO)

**Type of event:** Conference

**Type of participation:** Participatory - oral communication

**Reasons for participation:** Review before acceptance

**City of event:** Sanya, China

**Date of event:** 2007

**Organising entity:** IEEE

**Type of contribution:** Scientific paper

Alberto Brunete González; Jose Emilio Torres Matesanz; Miguel Hernando Gutierrez; Ernesto Gambao Galán. pp. 490 - 495. ISBN 978-1-4244-1761-2

**20 Title of the work:** A 2 DoF Servomotor-based Module for Pipe Inspection Modular Micro-robots

**Name of the conference:** International Conference on Intelligent Robots and Systems (IROS)

**Type of event:** Conference

**Type of participation:** Participatory - oral communication

**Reasons for participation:** Review before acceptance

**City of event:** Beijing, China

**Date of event:** 2006

**Organising entity:** IEEE

**Type of contribution:** Scientific paper

Alberto Brunete González; Jose Emilio Torres Matesanz; Miguel Hernando Gutiérrez; Ernesto Gambao Galán. pp. 1329 - 1334. ISBN 1-4244-0258-1

**21 Title of the work:** Drive Modules for Low Diameter Pipe Inspection Multiconfigurables Micro-robots

**Name of the conference:** International Conference on Robotics and Automation (ICRA)

**Type of event:** Conference

**Type of participation:** Participatory - poster

**Geographical area:** Non EU International

**Reasons for participation:** Review before acceptance

**City of event:** Orlando, United States of America

**Date of event:** 2006

**Organising entity:** IEEE

**Type of entity:** Associations and Groups

**City organizing entity:** United States of America

**Type of contribution:** Scientific paper

Alberto Brunete González; Miguel Hernando Gutierrez; Ernesto Gambao Galán. pp. 4351 - 4353. ISBN 0-7803-9505-0

**22 Title of the work:** Solar Powering with Integrated Global Positioning System for mm3 Size Robots

**Name of the conference:** International Conference on Intelligent Robots and Systems (IROS)

**Type of event:** Conference

**Type of participation:** Participatory - oral communication

**Reasons for participation:** Review before acceptance



**City of event:** Beijing, China

**Date of event:** 2006

**Organising entity:** IEEE

**Type of contribution:** Scientific paper

Walter Driesen; Alexis Boletis; Alberto Brunete González; Jean Marc Breguet. pp. 5528 - 5533. ISBN 1-4244-0258-1

**23 Title of the work:** Modular Multiconfigurable Architecture for Low Diameter Pipe Inspection Microrobots

**Name of the conference:** IEEE International Conference on Robotics and Automation

**Type of event:** Conference

**Geographical area:** Non EU International

**Type of participation:** Participatory - oral communication

**Reasons for participation:** Review before acceptance

**City of event:** Barcelona, Catalonia, Spain

**Date of event:** 2005

**Organising entity:** IEEE

**Type of contribution:** Scientific paper

Alberto Brunete González; Miguel Hernando Gutierrez; Ernesto Gambao Galán. pp. 490 - 495. ISBN 0-7803-8914-X

**24 Title of the work:** Multiconfigurable Inspection Robots for Low Diameter Canalizations

**Name of the conference:** 22 International Symposium on Automation and Robotics in Construction

**Type of event:** Conference

**Geographical area:** Non EU International

**Type of participation:** Participatory - oral communication

**Reasons for participation:** Review before acceptance

**City of event:** Ferrara, Italy

**Date of event:** 2005

**Organising entity:** International Association for Automation and Robotics in Construction (IAARC)

**Type of contribution:** Scientific paper

Ernesto Gambao Galán; Alberto Brunete González; Miguel Hernando Gutierrez.

**25 Title of the work:** Drive Modules for Pipe Inspection Microrobots

**Name of the conference:** International Conference on Mechatronics and Robotics

**Type of event:** Conference

**Geographical area:** Non EU International

**Type of participation:** Participatory - oral communication

**Reasons for participation:** Review before acceptance

**City of event:** Aachen, Germany

**Date of event:** 2004

**Organising entity:** IEEE

**Type of contribution:** Scientific paper

Alberto Brunete González; Miguel Hernando Gutierrez; Ernesto Gambao Galán. pp. 925 - 930. ISBN 3-938153-50-X

## Other dissemination activities

**1 Title of the work:** Colaboración Humano-Robot

**Name of the event:** Noche europea de los investigadores

**Type of event:** Fairs and exhibitions

**Reasons for participation:** Upon invitation

**City of event:** Madrid, Spain

**Date of event:** 25/09/2015

Miguel Hernando; Ernesto Gambao; Alberto Brunete González.



- 2** **Title of the work:** Impacto del Internet de las Cosas en el hogar  
**Name of the event:** Ciclo: Las 10 tecnologías que cambiarán nuestras vidas\*: Internet de las Cosas: La interconexión de la sociedad del siglo XXI.  
**Type of event:** Conferences given  
**City of event:** Madrid,  
**Date of event:** 21/05/2015  
**Organising entity:** Instituto de la Ingeniería de España  
**Type of entity:** Associations and Groups
- 3** **Title of the work:** Domótica asistencial  
**Type of event:** Media interviews  
**Date of event:** 2012  
**Organising entity:** Fundación Alzheimer España  
**City organizing entity:** Madrid, Community of Madrid, Spain  
Alberto Brunete González  
**Type of entity:** Foundation
- 4** **Title of the work:** Agenda Estrategica de Investigacion de la plataforma española de Comunicaciones Inalambricas (emov)  
**Type of event:** Publicaciones  
**Date of event:** 2010  
**Organising entity:** AMETIC  
**Type:** Scientific-technical report  
Alberto Brunete González  
**Geographical area:** National  
**Type of entity:** Associations and Groups
- 5** **Title of the work:** Agenda Estratégica de Investigación de la plataforma española de Comunicaciones Inalámbricas (eMOV)  
**Type of event:** Publicaciones  
**Date of event:** 2009  
**Organising entity:** AMETIC  
**Type:** Scientific-technical report  
Alberto Brunete González  
**Geographical area:** National  
**Type of entity:** Associations and Groups
- 6** **Title of the work:** Visión y Agenda Estratégica de investigación de la plataforma española de Tecnologías Audiovisuales en Red (eNEM)  
**Type of event:** Publicaciones  
**Date of event:** 2009  
**Organising entity:** AMETIC  
**Type:** Scientific-technical report  
Alberto Brunete González  
**Geographical area:** National  
**Type of entity:** Associations and Groups



## R&D management and participation in scientific committees

### Scientific, technical and/or assessment committees

- 1** **Committee title:** International Conference on Robotics and Emerging Allied Technologies in Engineering  
**Affiliation entity:** IEEE **Type of entity:** Associations and Groups  
**Start-End date:** 01/01/2014 - 24/04/2014
- 2** **Committee title:** 2nd ScienceOne International Conference on Information Technology ---: ICIT 2014  
**Start-End date:** 05/11/2013 - 23/01/2014

### Organization of R&D activities

- 1** **Title of the activity:** EUROGEN 2017: International Conference on Evolutionary and Deterministic Methods for Design Optimization and Control with Applications to Industrial and Societal Problems  
**Type of activity:** Organización de mini-simposium: Fall detection and prevention in the elderly  
**Start-End date:** 13/09/2017 - 15/09/2017
- 2** **Title of the activity:** The 26th IEEE International Symposium on Robot and Human Interactive Communication, RO-MAN 2017  
**Type of activity:** Organización de Workshop: User Experience and Communication in Interactive Robotic Systems: Ideas, Experiences and Case Studies  
**Convening entity:** IEEE  
**Start-End date:** 28/08/2017 - 01/09/2017

### Evaluation and revision of R&D projects and articles

- 1** **Performed tasks:** Evaluador de Congresos  
**Entity where activity was carried out:** IEEE - ICRA y IROS  
**Type of activity:** Revisión de artículos en Conferencias **Frequency of the activity:** 4  
**Access system:** Designated by the corresponding party without competition **Geographical area:** Non EU International  
**Start-End date:** 2007 - 2011
- 2** **Performed tasks:** Evaluador de Revista Internacional  
**Entity where activity was carried out:** IEEE Access  
**Type of activity:** Review of articles in scientific or technological journals **Frequency of the activity:** 1  
**Access system:** Designated by the corresponding party without competition **Geographical area:** Non EU International  
**Start date:** 2017
- 3** **Performed tasks:** Evaluador de Revista Internacional  
**Entity where activity was carried out:** Machines MDPI  
**Type of activity:** Review of articles in scientific or technological journals **Frequency of the activity:** 1



**Access system:** Designated by the corresponding party without competition

**Start date:** 2017

**Geographical area:** Non EU International

**4 Performed tasks:** Evaluador de Revista Internacional

**Entity where activity was carried out:** Robotics MDPI

**Type of activity:** Review of articles in scientific or technological journals

**Frequency of the activity:** 1

**Access system:** Designated by the corresponding party without competition

**Geographical area:** Non EU International

**Start date:** 2017

**5 Performed tasks:** Evaluador de Revista Internacional

**Entity where activity was carried out:** Industrial Robots

**Type of activity:** Review of articles in scientific or technological journals

**Frequency of the activity:** 1

**Access system:** Designated by the corresponding party without competition

**Geographical area:** Non EU International

**Start date:** 2016

**6 Name of the activity:** Evaluator in the peer review evaluation process of the proposals presented to the 2nd ERANet-LAC Transnational Joint Call for Research and Innovation projects on the thematic area "ICT".

**Performed tasks:** Evaluados Proyectos I+D

**Entity where activity was carried out:** ERANet-LAC **Type of entity:** State agency

**Start date:** 2016

**7 Name of the activity:** Evaluados Entidad EQA

**Performed tasks:** Evaluados Proyectos I+D

**Entity where activity was carried out:** EQA

**Type of entity:** Business

**Start date:** 2015

**8 Performed tasks:** Evaluador de Revista Internacional

**Entity where activity was carried out:** Intelligent and Robotic Systems

**Type of activity:** Review of articles in scientific or technological journals

**Frequency of the activity:** 1

**Access system:** Designated by the corresponding party without competition

**Geographical area:** Non EU International

**Start date:** 2014

**9 Performed tasks:** Evaluador de Revista Internacional

**Entity where activity was carried out:** Robotics and Computer Integrated Manufacturing

**Type of activity:** Review of articles in scientific or technological journals

**Frequency of the activity:** 1

**Access system:** Designated by the corresponding party without competition

**Geographical area:** Non EU International

**Start date:** 2014

**10 Performed tasks:** Evaluador de Revista Internacional

**Entity where activity was carried out:** Elsevier - Robotics and Autonomous Systems

**Type of entity:** Business

**Type of activity:** Review of articles in scientific or technological journals

**Frequency of the activity:** 1



**Access system:** Designated by the corresponding party without competition

**Start date:** 2012

**Geographical area:** Non EU International

**11 Performed tasks:** Evaluador de Revista Internacional

**Entity where activity was carried out:** IEEE - Transactions on Education

**Type of entity:** Associations and Groups

**Type of activity:** Review of articles in scientific or technological journals

**Frequency of the activity:** 1

**Access system:** Designated by the corresponding party without competition

**Geographical area:** Non EU International

**Start date:** 2012

**12 Performed tasks:** Miembro de tribunal de trabajos de fin de grado

**Entity where activity was carried out:** Universidad Carlos III de Madrid

**Type of entity:** University

**City of entity:** Madrid, Community of Madrid, Spain

**Type of activity:** Participation in panels

**Frequency of the activity:** 8

**Access system:** Designated by the corresponding party without competition

**Start date:** 2012

**13 Performed tasks:** Miembro de tribunal de proyecto fin de carrera (PFC)

**Entity where activity was carried out:** Universidad Carlos III de Madrid

**Type of entity:** University

**City of entity:** Madrid, Community of Madrid, Spain

**Type of activity:** Participation in panels

**Frequency of the activity:** 3

**Access system:** Designated by the corresponding party without competition

**Start date:** 2011

## Other achievements

### Stays in public or private R&D centres

**1 Entity:** Universidad de Nueva York en Abu Dhabi  
**City of entity:** Abu Dhabi, United Arab Emirates  
**Start-End date:** 15/06/2012 - 15/07/2012  
**Funding entity:** New York University Abu Dhabi  
**Goals of the stay:** Post-doctoral  
**Type of entity:** University  
**Duration:** 1 month

**2 Entity:** École Polytechnique Fédérale de Lausanne (EPFL)  
**City of entity:** Lausanne, Switzerland  
**Start-End date:** 15/08/2005 - 15/12/2005  
**Goals of the stay:** Doctorate  
**Type of entity:** University  
**Duration:** 4 months

**3 Entity:** Norwegian University of Science and Technology (NTNU)  
**City of entity:** Trondheim, Norway  
**Start-End date:** 15/07/1999 - 15/09/2000  
**Goals of the stay:** Erasmus  
**Type of entity:** University  
**Duration:** 1 year - 2 months



## Obtained grants and scholarships

- 1** **Name of the grant:** Beca FPI: Formación de Personal Investigador  
**Aims:** Pre-doctoral  
**Awarding entity:** Comunidad de Madrid  
**Conferral date:** 22/11/2004  
**End date:** 11/06/2007  
**Type of entity:** Comunidad Autónoma  
**Duration:** 3 years
- 2** **Name of the grant:** Beca Erasmus  
**Aims:** Estudios de Ingeniería  
**Awarding entity:** Unión Europea  
**Conferral date:** 1999  
**End date:** 2000  
**Type of entity:** Unión Europea  
**Duration:** 1 year

## Prizes, mentions and distinctions

- 1** **Description:** Premio ABC Solidario 2016  
**Awarding entity:** ABC, Grupo VOCENTO  
**Conferral date:** 17/06/2016  
**Recognition linked:** Proyecto: Detector de caídas para personas mayores
- 2** **Description:** Premio ABC Solidario 2013  
**Awarding entity:** ABC Grupo VOCENTO  
**Conferral date:** 27/06/2013  
**Recognition linked:** Proyecto: Plataforma Domótica para enfermos de Alzheimer
- 3** **Description:** Certificate of Excellence in Reviewing  
**Awarding entity:** IEEE  
**Conferral date:** 2013  
**Type of entity:** Associations and Groups
- 4** **Description:** Seleccionado para participar en el Campus de Excelencia organizado por la Fundación Vitalia y la Universidad de Las Palmas de Gran Canaria  
**Awarding entity:** ANEP/ANECA  
**City awarding entity:** Tenerife, Canary Islands, Spain  
**Conferral date:** 2005

## Obtained accreditations/recognitions

**Description:** Acreditacion Profesor titular  
**Accrediting entity:** Agencia Nacional de Evaluación de la Calidad y Acreditación  
**Date of recognition:** 13/07/2020  
**Type of entity:** -