



**Enrique Alexandre Cortizo**

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## 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.

I am Associate Professor at the Signal Theory and Communications Department of the University of Alcalá. I obtained my MSc degree in Telecommunications Engineering from the University of Vigo (1999) and the PhD for the same University (2004). As a postdoc, I worked as Assistant Professor at the University of Vigo, and later as Interim Associate Professor at the University of Alcalá until 2010, when I obtained my tenure.

I have authored more than 30 papers in international journals and books besides a good number of conferences, both national and international. I have supervised 1 PhD thesis and more than 30 Master's Thesis. Regarding research awards, I have received the Award from the Social Council of the University of Alcalá for the transfer of knowledge University-Society, in 2008, which is the most important award given by the University of Alcalá to Research groups.

I have participated in more than 45 research projects, being 14 of them regional, 7 national, 2 international and 24 with private companies. In 7 of these projects I worked as Principal Investigator (IP). As a result of some of these projects a number of commercial products have been made available, and also a patent: P200801046: "System for detecting vehicles circulating using the noise".

My current research interests include machine learning and soft computing algorithms applied to different problems such as sound processing and renewable energies.



## 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.

3 research periods (2004-2009, 2010-2015, 2016-2021)

1 supervised PhD thesis (2012)

948 cites (497 since 2018)

h index: 16 (According to Google Scholar).

14 publications in Q1 journals



## Enrique Alexandre Cortizo

Surname(s): **Alexandre Cortizo**  
 Name: **Enrique**  
 DNI: **10867381L**  
 ORCID: **0000-0003-1299-2345**  
 ScopusID: **22978729400**  
 ResearcherID: **A-6216-2010**  
 Date of birth: **04/08/1975**  
 Gender: **Male**  
 Nationality: **Spain**  
 Country of birth: **Spain**  
 Aut. region/reg. of birth: **Galicia**  
 Contact province: **Madrid**  
 City of birth: **Santiago de Compostela**  
 Contact address: **Escuela Politécnica Superior**  
 Rest of contact address: **Dept. de Teoría de la Señal y Comunicaciones**  
 Postcode: **28805**  
 Contact country: **Spain**  
 Contact aut. region/reg.: **Community of Madrid**  
 Contact city: **Alcalá de Henares**  
 Land line phone: **(+34) 918856727**  
 Email: **enrique.alexandre@uah.es**

### Current professional situation

**Employing entity:** Universidad de Alcalá  
**Department:** Universidad de Alcalá, Universidad de Alcalá  
**Professional category:** Profesor Titular **Educational Management (Yes/No):** No  
 Universidad  
**Start date:** 07/12/2010  
**Type of contract:** Civil servant **Dedication regime:** Full time  
**Primary (UNESCO code):** 332500 - Telecommunications technology  
**Performed tasks:** Profesor Titular Universidad  
**Identify key words:** Processing and signal analysis

### Previous positions and activities

	Employing entity	Professional category	Start date
1	Universidad de Alcalá	Profesor Interino Titular Unv.	18/11/2004
2	Universidade de Vigo	Profesor Asociado T3-P6	01/10/2004
3	Universidade de Vigo	Contrato de Investigación asociado a proyecto CICYT	01/08/2004
4	Universidade de Vigo	Profesor Asociado T3-P3	20/02/2004
5	Universidade de Vigo	Contrato de investigación Parques Tecnológicos. Fondos FEDER.	01/08/2003



	Employing entity	Professional category	Start date
6	Universidade de Vigo	Beca de colaboración 5th Bayona Workshop on Emerging Technologies in Telecommunications	01/09/2003
7	XUNTA DE GALICIA	Beca para la formación de doctores en grupos de investigación con proyectos vigentes	01/10/2001
8	Universidade de Vigo	Beca de colaboración 5th Bayona Workshop on Emerging Technologies in Telecommunications	01/12/2002
9	Universidade de Vigo	Beca de colaboración 5th Bayona Workshop on Emerging Technologies in Telecommunications	01/12/2001
10	XUNTA DE GALICIA	Beca de tercer ciclo	01/10/1999
11	Universidade de Vigo	Beca de Colaboración	01/06/1999

- 1** **Employing entity:** Universidad de Alcalá **Type of entity:** University  
**Professional category:** Profesor Interino Titular **Educational Management (Yes/No):** No  
Unv.  
**Start-End date:** 18/11/2004 - 06/12/2010 **Duration:** 6 years - 18 days  
**Type of contract:** Temporary
- 2** **Employing entity:** Universidade de Vigo **Type of entity:** University  
**Professional category:** Profesor Asociado T3-P6  
**Start-End date:** 01/10/2004 - 17/11/2004 **Duration:** 1 month - 17 days
- 3** **Employing entity:** Universidade de Vigo **Type of entity:** University  
**Professional category:** Contrato de Investigación asociado a proyecto CICYT  
**Start-End date:** 01/08/2004 - 17/11/2004 **Duration:** 3 months - 17 days
- 4** **Employing entity:** Universidade de Vigo **Type of entity:** University  
**Professional category:** Profesor Asociado T3-P3  
**Start-End date:** 20/02/2004 - 30/09/2004 **Duration:** 7 months - 11 days
- 5** **Employing entity:** Universidade de Vigo **Type of entity:** University  
**Professional category:** Contrato de investigación Parques Tecnológicos. Fondos FEDER.  
**Start-End date:** 01/08/2003 - 31/07/2004 **Duration:** 1 year
- 6** **Employing entity:** Universidade de Vigo **Type of entity:** University  
**Professional category:** Beca de colaboración 5th Bayona Workshop on Emerging Technologies in Telecommunications  
**Start-End date:** 01/09/2003 - 30/09/2003 **Duration:** 1 month
- 7** **Employing entity:** XUNTA DE GALICIA  
**Professional category:** Beca para la formación de doctores en grupos de investigación con proyectos vigentes  
**Start-End date:** 01/10/2001 - 31/07/2003 **Duration:** 1 year - 10 months
- 8** **Employing entity:** Universidade de Vigo **Type of entity:** University  
**Professional category:** Beca de colaboración 5th Bayona Workshop on Emerging Technologies in Telecommunications  
**Start-End date:** 01/12/2002 - 31/12/2002 **Duration:** 1 month



- 9** **Employing entity:** Universidade de Vigo **Type of entity:** University  
**Professional category:** Beca de colaboración 5th Bayona Workshop on Emerging Technologies in Telecommunications  
**Start-End date:** 01/12/2001 - 31/12/2001 **Duration:** 1 month
- 10** **Employing entity:** XUNTA DE GALICIA  
**Professional category:** Beca de tercer ciclo  
**Start-End date:** 01/10/1999 - 30/09/2001 **Duration:** 2 years
- 11** **Employing entity:** Universidade de Vigo **Type of entity:** University  
**Professional category:** Beca de Colaboración  
**Start-End date:** 01/06/1999 - 30/09/1999 **Duration:** 4 months



## Education

### University education

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

**University degree:** Higher degree

**Name of qualification:** Ingeniero de Telecomunicación

**Degree awarding entity:** Universidade de Vigo      **Type of entity:** University

**Date of qualification:** 02/09/1999

**Average mark:** Good

**Standardised degree:** No

#### Doctorates

**Doctorate programme:** Doctor Ingeniero de Telecomunicación

**Degree awarding entity:** Universidade de Vigo      **Type of entity:** University

**Date of degree:** 12/07/2004

**European doctorate:** No

**Thesis title:** On the management of Information Flows in Natural Audio Coders

**Thesis director:** Antonio Pena Giménez

**Obtained qualification:** Sobresaliente Cum Laude

**Recognition of quality:** No

**Special doctorate award:** No

**Standardised degree:** No

#### Other postgraduate university studies

**Postgraduate qualification:** Experto en Docencia Universitaria

**Degree awarding entity:** Universidad de Alcalá      **Type of entity:** University

**Date of qualification:** 26/06/2007

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

- 1 Training title:** Introduction to Digital Sound Design  
**Awarding entity:** Emory University      **Type of entity:** University  
**End date:** 2013
- 2 Training title:** Curso online de análisis de una idea de negocio y orientación para la elaboración del plan de empresa  
**Awarding entity:** XUNTA DE GALICIA  
**End date:** 2005      **Duration in hours:** 200 hours



- 3 Training title:** DSP56307 FAE Certification  
**Awarding entity:** Motorola **Type of entity:** Business  
**End date:** 1999
- 4 Training title:** Ensayos modales y análisis de órdenes  
**Awarding entity:** BRUEL AND KJAER IBERICA, S.A.  
**End date:** 1999
- 5 Training title:** Seminario sobre simulación numérica en problemas de acústica e interacción fluido-estructura  
**Awarding entity:** Universidade de Vigo **Type of entity:** University  
**End date:** 1998
- 6 Training title:** II Seminario de Comunicaciones Móviles  
**Awarding entity:** Universidade de Vigo **Type of entity:** University  
**End date:** 1997

### Attended advanced, improvement and innovative teacher training and new technology courses and seminars focused on improving teaching

- 1 Title of course/seminar:** Aplicación de las redes sociales a la enseñanza: Comunidades virtuales  
**Organising entity:** Universidad Politécnica de Madrid **Type of entity:** University  
**Duration in hours:** 20 hours  
**End date:** 2015
- 2 Title of course/seminar:** Cómo crear un MOOC en Miríada X  
**Organising entity:** Miríada X  
**Duration in hours:** 15 hours  
**End date:** 2015
- 3 Title of course/seminar:** Innovación educativa aplicada (3ª edición)  
**Organising entity:** Universidad Politécnica de Madrid **Type of entity:** University  
**Duration in hours:** 40 hours  
**End date:** 2015
- 4 Title of course/seminar:** El modelo de los MOOC (Massive Open Online Courses) en la Educación Superior  
**Organising entity:** Universidad de Alcalá **Type of entity:** University  
**Duration in hours:** 2 hours  
**End date:** 2012
- 5 Title of course/seminar:** Estrategias de aprendizaje activo: aprendizaje por problemas (PBL)  
**Organising entity:** Universidad de Alcalá **Type of entity:** University  
**Duration in hours:** 20 hours  
**End date:** 2006
- 6 Title of course/seminar:** Enseñanza a través de Internet. Diseño instructivo de materiales docentes  
**Organising entity:** Universidad de Alcalá **Type of entity:** University  
**Duration in hours:** 90 hours  
**End date:** 2005





- 7 Title of course/seminar:** III Jornadas Nacionales de Profesores de Universidad  
**Goals of the course/seminar:** Compartir nuevas metodologías docentes  
**Organising entity:** Asociación general de Profesores Titulares de Universidad      **Type of entity:** Associations and Groups  
**Start-End date:** 09/09/2004 - 10/09/2004

- 8 Title of course/seminar:** Diseño e implementación do crédito europeo  
**Organising entity:** Universidade de Vigo      **Type of entity:** University  
**Duration in hours:** 10 hours  
**Start-End date:** 08/07/2004 - 09/07/2004

## Language skills

Language	Listening skills	Reading skills	Spoken interaction	Speaking skills	Writing skills
Japanese	A2	A2	A2	A2	A2
Portuguese	C1	C1	C1	B2	B2
English	C1	C1	C1	C1	C1
Gallegan	C2	C2	C1	C1	C1

## Teaching experience

### General teaching experience

- 1 Name of the course:** Comunicaciones Digitales  
**University degree:** Máster en Ingeniería de Telecomunicación  
**Start date:** 01/10/2018      **End date:** 30/09/2019  
**Entity:** Universidad de Alcalá      **Type of entity:** University  
**Faculty, institute or centre:** Escuela Politécnica Superior
- 2 Type of teaching:** Official teaching  
**Name of the course:** Communication Theory  
**Type of programme:** Engineering      **Type of teaching:** In person theory  
**Type of subject:** Obligatory  
**University degree:** Graduado o Graduada en Ingeniería de Tecnologías de Telecomunicación  
**Course given:** 2  
**Start date:** 01/10/2016      **End date:** 30/09/2019  
**Entity:** Universidad de Alcalá      **Type of entity:** University  
**City of entity:** Community of Madrid, Spain  
**Subject language:** English
- 3 Type of teaching:** Official teaching  
**Name of the course:** Accesibilidad  
**Type of programme:** Engineering      **Type of teaching:** In person theory  
**Type of subject:** Modular  
**University degree:** Graduado o Graduada en Ingeniería de Tecnologías de Telecomunicación  
**Start date:** 01/10/2012      **End date:** 30/09/2017  
**Entity:** Universidad de Alcalá      **Type of entity:** University



**Faculty, institute or centre:** Escuela Politécnica Superior  
**Subject language:** Spanish

- 4** **Type of teaching:** Official teaching  
**Name of the course:** Postproducción audiovisual  
**Type of programme:** Bachelor's degree **Type of teaching:** In person theory  
**Type of subject:** Obligatory  
**University degree:** Graduado o Graduada en Comunicación Audiovisual  
**Start date:** 01/10/2014 **End date:** 30/09/2016  
**Entity:** Universidad de Alcalá **Type of entity:** University  
**Faculty, institute or centre:** Facultad de Filosofía y Letras  
**Subject language:** Spanish
- 5** **Type of teaching:** Official teaching  
**Name of the course:** Tecnología Musical  
**Type of programme:** Engineering **Type of teaching:** In person theory  
**Type of subject:** Modular  
**University degree:** Graduado o Graduada en Ingeniería de Tecnologías de Telecomunicación  
**Start date:** 01/10/2012 **End date:** 30/09/2016  
**Entity:** Universidad de Alcalá **Type of entity:** University  
**Faculty, institute or centre:** Escuela Politécnica Superior  
**Subject language:** Spanish
- 6** **Type of teaching:** Official teaching  
**Name of the course:** Tratamiento Digital de Señales Avanzado  
**Type of programme:** Master's degree **Type of teaching:** In person theory  
**Type of subject:** Obligatory  
**University degree:** Máster Universitario en Tecnologías de la Información y las Comunicaciones  
**Start date:** 01/10/2013 **End date:** 30/09/2015  
**Entity:** Universidad de Alcalá **Type of entity:** University  
**Faculty, institute or centre:** Escuela Politécnica Superior  
**Subject language:** English
- 7** **Type of teaching:** Official teaching  
**Name of the course:** Aplicación de plataformas online y web 2.0 para tecnología  
**Type of programme:** Master's degree **Type of teaching:** In person theory  
**Type of subject:** Optional  
**University degree:** Máster Oficial en formación del profesorado de ESO, Bachillerato, Formación Profesional y Enseñanza de Idiomas  
**Start date:** 01/10/2009 **End date:** 30/09/2015  
**Entity:** Universidad de Alcalá **Type of entity:** University  
**Faculty, institute or centre:** Escuela Politécnica Superior  
**Subject language:** Spanish
- 8** **Type of teaching:** Official teaching  
**Name of the course:** Introducción al Audio Digital  
**Type of programme:** Engineering **Type of teaching:** In person theory  
**Type of subject:** Modular  
**University degree:** Ingeniero de Telecomunicación  
**Start date:** 01/10/2007 **End date:** 30/09/2014  
**Entity:** Universidad de Alcalá **Type of entity:** University



**Faculty, institute or centre:** Escuela Politécnica Superior  
**Subject language:** Spanish

- 9** **Type of teaching:** Official teaching  
**Name of the course:** Tratamiento de señales audiovisuales  
**Type of programme:** Master's degree **Type of teaching:** In person theory  
**Type of subject:** Optional  
**University degree:** Máster Universitario en Tecnologías de la Información y las Comunicaciones  
**Start date:** 01/10/2007 **End date:** 30/09/2014  
**Entity:** Universidad de Alcalá **Type of entity:** University  
**Faculty, institute or centre:** Escuela Politécnica Superior  
**Subject language:** Spanish
- 10** **Type of teaching:** Official teaching  
**Name of the course:** Tratamiento digital de la voz  
**Type of programme:** Engineering **Type of teaching:** In person theory  
**Type of subject:** Optional  
**University degree:** Ingeniero de Telecomunicación  
**Start date:** 01/10/2005 **End date:** 30/09/2014  
**Entity:** Universidad de Alcalá **Type of entity:** University  
**Faculty, institute or centre:** Escuela Politécnica Superior  
**Subject language:** Spanish
- 11** **Type of teaching:** Official teaching  
**Name of the course:** Teoría de Circuitos  
**Type of programme:** Engineering **Type of teaching:** In person theory  
**Type of subject:** Core  
**University degree:** Graduado o Graduada en Ingeniería en Tecnologías de la Telecomunicación  
**Start date:** 01/10/2010 **End date:** 30/09/2011  
**Entity:** Universidad de Alcalá **Type of entity:** University  
**Faculty, institute or centre:** Escuela Politécnica Superior  
**Subject language:** Spanish
- 12** **Type of teaching:** Official teaching  
**Name of the course:** Circuitos Lineales  
**Type of programme:** Engineering **Type of teaching:** In person theory  
**Type of subject:** Obligatory  
**University degree:** Ingeniero de Telecomunicación  
**Start date:** 18/11/2004 **End date:** 30/09/2010  
**Entity:** Universidad de Alcalá **Type of entity:** University  
**Faculty, institute or centre:** Escuela Politécnica Superior  
**Subject language:** Spanish
- 13** **Type of teaching:** Official teaching  
**Name of the course:** Sistemas audiovisuales  
**Type of programme:** Technical engineering **Type of teaching:** In person theory  
**Type of subject:** Optional  
**University degree:** Ingeniero Técnico de Telecomunicación, especialidad en Sistemas de Telecomunicación  
**Start date:** 01/10/2007 **End date:** 30/09/2008  
**Entity:** Universidad de Alcalá **Type of entity:** University  
**Faculty, institute or centre:** Escuela Politécnica Superior



- 14** **Type of teaching:** Official teaching  
**Name of the course:** Señales y Sistemas  
**Type of programme:** Technical engineering **Type of teaching:** In person theory  
**Type of subject:** Obligatory  
**University degree:** Ingeniero Técnico de Telecomunicación, especialidad en Telemática  
**Start date:** 18/11/2004 **End date:** 30/09/2008  
**Entity:** Universidad de Alcalá **Type of entity:** University  
**Faculty, institute or centre:** Escuela Politécnica Superior
- 15** **Type of teaching:** Official teaching  
**Name of the course:** Modelos de señal  
**Type of programme:** Master's degree **Type of teaching:** In person theory  
**Type of subject:** Optional  
**University degree:** Máster Oficial en Tecnologías de la Información y las Comunicaciones  
**Start date:** 01/10/2006 **End date:** 30/09/2007  
**Entity:** Universidad de Alcalá **Type of entity:** University  
**Faculty, institute or centre:** Escuela Politécnica Superior  
**Subject language:** Spanish
- 16** **Type of teaching:** Official teaching  
**Name of the course:** Análisis de Circuitos II  
**Type of programme:** Technical engineering **Type of teaching:** Laboratory work  
**Type of subject:** Core  
**University degree:** Ingeniero Técnico de Telecomunicación, especialidad en Sistemas de Telecomunicación  
**Start date:** 18/11/2004 **End date:** 30/09/2007  
**Entity:** Universidad de Alcalá **Type of entity:** University  
**Faculty, institute or centre:** Escuela Politécnica Superior
- 17** **Type of teaching:** Official teaching  
**Name of the course:** Sistemas Lineales  
**Type of programme:** Technical engineering **Type of teaching:** Practical work (classroom-problems)  
**Type of subject:** Core  
**University degree:** Ingeniero Técnico de Telecomunicación, especialidad en Sistemas de Telecomunicación  
**Start date:** 01/10/2005 **End date:** 30/09/2006  
**Entity:** Universidad de Alcalá **Type of entity:** University  
**Faculty, institute or centre:** Escuela Politécnica Superior
- 18** **Type of teaching:** Official teaching  
**Name of the course:** Electroacústica  
**Type of programme:** Engineering **Type of teaching:** In person theory  
**Type of subject:** Optional  
**University degree:** Ingeniero de Telecomunicación  
**Start date:** 01/10/2003 **End date:** 30/09/2004  
**Entity:** Universidade de Vigo **Type of entity:** University  
**Faculty, institute or centre:** Escuela Técnica Superior de Ingenieros de Telecomunicación  
**Subject language:** Spanish
- 19** **Type of teaching:** Official teaching  
**Name of the course:** Sistemas de Audio y Vídeo  
**Type of programme:** Engineering **Type of teaching:** In person theory



**Type of subject:** Optional

**University degree:** Ingeniero de Telecomunicación

**Start date:** 01/10/1999

**End date:** 30/09/2004

**Entity:** Universidade de Vigo

**Type of entity:** University

**Faculty, institute or centre:** Escuela Técnica Superior de Ingenieros de Telecomunicación

**Subject language:** Spanish

**20 Type of teaching:** Official teaching

**Name of the course:** Ingeniería Acústica

**Type of programme:** Engineering

**Type of teaching:** In person theory

**Type of subject:** Optional

**University degree:** Ingeniero de Telecomunicación

**Start date:** 01/10/1999

**End date:** 30/09/2003

**Entity:** Universidade de Vigo

**Type of entity:** University

**Faculty, institute or centre:** Escuela Técnica Superior de Ingenieros de Telecomunicación

**Subject language:** Spanish

**21 Type of teaching:** Official teaching

**Name of the course:** Comunicaciones Digitales

**Type of subject:** Optional

**University degree:** Graduado o Graduada en Ingeniería Electrónica de Comunicaciones

**Start date:** 01/10/2018

**Entity:** Universidad de Alcalá

**Type of entity:** University

**22 Type of teaching:** Official teaching

**Name of the course:** Teoría de la Comunicación

**Type of programme:** Engineering

**Type of teaching:** In person theory

**Type of subject:** Obligatory

**University degree:** Graduado o Graduada en Ingeniería de Tecnologías de Telecomunicación

**Course given:** 2

**Start date:** 01/10/2016

**Entity:** Universidad de Alcalá

**Type of entity:** University

**23 Type of teaching:** Official teaching

**Name of the course:** Sistemas Audiovisuales y Aplicaciones Multimedia

**Type of programme:** Master's degree

**Type of teaching:** In person theory

**Type of subject:** Obligatory

**University degree:** Graduado o Graduada en Ingeniería en Sistemas de Información

**Start date:** 01/10/2012

**Entity:** Universidad de Alcalá

**Type of entity:** University

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

**Department:** Teoría de la Señal y Comunicaciones

**Subject language:** Spanish

**24 Type of teaching:** Official teaching

**Name of the course:** Tratamiento digital de señales

**Type of programme:** Engineering

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

**Type of subject:** Core

**University degree:** Ingeniero de Telecomunicación

**Start date:** 18/11/2004

**Entity:** Universidad de Alcalá

**Type of entity:** University



**Faculty, institute or centre:** Escuela Politécnica Superior  
**Subject language:** Spanish

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

**Project title:** Signal Processing Algorithms for Digital Hearing Aids  
**Type of project:** Doctoral thesis  
**Entity:** Universidad de Alcalá **Type of entity:** University  
**Student:** Lorena Álvarez Pérez  
**Obtained qualification:** Apto Cum Laude  
**Date of reading:** 09/03/2012  
**European doctorate:** Yes  
**Quality recognition:** Yes

## Student tutorials

**Name of the programme:** Tutorías académicas personalizadas  
**Entity:** Universidad de Alcalá **Type of entity:** University  
**Number of recognized hours/ECTS credits:** 25

## Teaching experience in courses and seminars for university teacher training

**Type of event:** Workshop  
**Name of the event:** Los procesos de innovación docente en la UAH  
**Organising entity:** Departamento de Electrónica. Universidad de Alcalá  
**Teaching date:** 17/09/2009

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

- 1** Enrique Alexandre Cortizo. ISBN 978-84-697-2045-5  
**Name of the materials:** Tecnología Musical  
**Date of drafting:** 2015  
**Format:** Book
- 2** Javier Acevedo Rodríguez; Enrique Alexandre Cortizo; Lucas Cuadra Rodríguez; Pedro Gil Jiménez; Roberto Gil Pita; Roberto López Sastre; Sergio Lafuente Arroyo; Philip Siegmann. ISBN 978-84-8138-822-0  
**Name of the materials:** Actas de las II Jornadas id+TIC  
**Date of drafting:** 2009  
**Format:** Book  
**Degree of contribution:** Editor or co-editor  
**Corresponding author:** Yes
- 3** Javier Acevedo Rodríguez; Enrique Alexandre Cortizo; Lucas Cuadra Rodríguez; Pedro Gil Jiménez; Roberto Gil Pita; Roberto López Sastre; Sergio Lafuente Arroyo; Philip Siegmann; Raúl Vicen Bueno. ISBN 978-84-8138-797-1  
**Name of the materials:** Manejo de instrumentos del laboratorio de circuitos eléctricos y lineales  
**Date of drafting:** 2008



**Format:** CD Multimedia

- 4** Enrique Alexandre Cortizo; Lucas Cuadra Rodríguez; Roberto Javier López Sastre; Cecilia Urquizu Sánchez. Experiencias de innovación docente en la Universidad de Alcalá, pp. 123 - 129.

**Name of the materials:** Una experiencia de innovación docente interdisciplinar: tecnología y pedagogía

**Date of drafting:** 2007

**Format:** Chapters of books

**Corresponding author:** Yes

- 5** Manuel A. Sobreira Seoane; Enrique Alexandre Cortizo. ISBN 84-932797-49

**Name of the materials:** Ingeniería Acústica

**Date of drafting:** 2003

**Format:** Book

**Degree of contribution:** Author or co-author of entire book

## Participation in innovative teaching projects

- 1** **Project title:** Diseño de materiales docentes online para Tecnología Musical

**Type of participation:** Principal investigator

**Funding entity:** Universidad de Alcalá

**Type of entity:** University

**Start-End date:** 01/10/2014 - 30/09/2015

- 2** **Project title:** Implantación de medidas para la integración curricular en el Máster de Formación de Profesorado de Educación Secundaria Obligatoria

**Type of participation:** Principal investigator

**Funding entity:** Universidad de Alcalá

**Type of entity:** University

**Start-End date:** 01/10/2010 - 30/09/2011

- 3** **Project title:** Elaboración de material docente transversal para la mejora del aprendizaje significativo de codificadores de sonido en asignaturas de Telecomunicación

**Type of participation:** Principal investigator

**Funding entity:** Universidad de Alcalá

**Type of entity:** University

**Start-End date:** 01/10/2009 - 30/09/2010

- 4** **Project title:** Elaboración de vídeos para las asignaturas de circuitos

**Type of participation:** Principal investigator

**Funding entity:** Universidad de Alcalá

**Type of entity:** University

**Start-End date:** 01/10/2008 - 30/09/2009

- 5** **Project title:** Elaboración de materiales audiovisuales para las asignaturas de Laboratorio de Circuitos

**Type of participation:** Principal investigator

**Funding entity:** Universidad de Alcalá

**Type of entity:** University

**Start-End date:** 01/10/2007 - 30/09/2008

- 6** **Project title:** Aprendizaje dos sistemas liñais e as súas aplicacións

**Type of participation:** Team member

**Funding entity:** Universidade de Vigo

**Type of entity:** University

**Start date:** 2004



## Participation in conferences with talks focused on teacher training

- 1 Name of the event:** II Jornadas id+TIC  
**Date of presentation:** 2009  
**Organising entity:** Universidad de Alcalá **Type of entity:** University  
Potencial de la simulación para el aprendizaje reflexivo de redes de comunicación.
- 2 Name of the event:** I Jornadas id+TIC  
**Date of presentation:** 2008  
**Organising entity:** Universidad de Alcalá **Type of entity:** University  
Mejora de las habilidades competitivas y de aprendizaje de los alumnos durante el estudio de asignaturas relacionadas con el procesado de señal.
- 3 Name of the event:** I Jornadas id+TIC  
**Date of presentation:** 2008  
**Organising entity:** Universidad de Alcalá **Type of entity:** University  
SCLS: Sound coding learning system for graduate students.
- 4 Name of the event:** I Jornadas id+TIC  
**Date of presentation:** 2008  
Un Ejemplo de Planificación de Asignaturas de Telecomunicación Orientada a la Mejora del Aprendizaje Reflexivo.
- 5 Name of the event:** II Jornadas id+TIC  
**Date of presentation:** 2008  
**Organising entity:** Universidad de Alcalá **Type of entity:** University  
Desarrollo de una herramienta audiovisual para la docencia de la asignatura Laboratorio de Circuitos Eléctricos.
- 6 Name of the event:** II Encuentro sobre Innovación en Docencia Universitaria  
**Type of event:** Workshop  
**Date of presentation:** 2007  
**Organising entity:** Universidad de Alcalá **Type of entity:** University  
Una experiencia de Innovación docente interdisciplinar: telecomunicación y pedagogía.

## Awards received for innovation in the field teaching

- 1 Name of the prize:** III Premio para grupos de innovación docente  
**Awarding entity:** Universidad de Alcalá **Type of entity:** University  
**City awarding entity:**  
**Proposed by:** Universidad de Alcalá  
**Conferral date:** 21/10/2009
- 2 Name of the prize:** II Premio para grupos de innovación docente  
**Awarding entity:** Universidad de Alcalá **Type of entity:** University  
**City awarding entity:**  
**Proposed by:** Universidad de Alcalá  
**Conferral date:** 23/10/2008





- 3 Name of the prize:** I Premio para grupos de innovación docente  
**Awarding entity:** Universidad de Alcalá **Type of entity:** University  
**City awarding entity:**  
**Proposed by:** Universidad de Alcalá  
**Conferral date:** 03/10/2007

## Other activities/achievements not included above

- 1 Description of the activity:** Miembro de la Comisión de planes de Estudios para las Titulaciones de la rama Informática de la Escuela Politécnica Superior  
**Organising entity:** Universidad de Alcalá **Type of entity:** University  
**End date:** 30/09/2019
- 2 Description of the activity:** Coordinador de las II Jornadas de innovación docente id+TIC  
**Organising entity:** Universidad de Alcalá **Type of entity:** University  
**End date:** 2009
- 3 Description of the activity:** Coordinador de las I Jornadas de innovación docente id+TIC  
**Organising entity:** Universidad de Alcalá **Type of entity:** University  
**End date:** 2008
- 4 Description of the activity:** Miembro de la Comisión para la Elaboración de los Estudios de Grado en Multimedia de la Escuela Técnica Superior de Ingeniería Informática  
**Organising entity:** Universidad de Alcalá **Type of entity:** University  
**End date:** 2008
- 5 Description of the activity:** Miembro del panel de evaluadores del programa VERIFICA y MODIFICA de la fundación Madrimasd  
**Organising entity:** FUNDACION MADRIMASD PARA EL CONOCIMIENTO

## Scientific and technological experience

### Scientific or technological activities

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

- 1 Name of the project:** Nuevos algoritmos neuro-evolutivos para clasificación ordinal: aplicaciones en clima, energías limpias y medio ambiente  
**Entity where project took place:** Universidad de Alcalá **Type of entity:** University  
**Name principal investigator (PI, Co-PI....):** Silvia Jiménez Fernández; Sancho Salcedo Sanz  
**Funding entity or bodies:** Ministerio de Economía y Competitividad **Type of entity:** State agency  
**Name of the programme:** Programa Nacional de investigación fundamental no orientada, Excelencia  
**Code according to the funding entity:** PID2020-115454GB-C21  
**Start-End date:** 01/09/2021 - 30/08/2024  
**Total amount:** 83.000 €



- 2** **Name of the project:** CLIMATE INTELLIGENCE Extreme events detection, attribution and adaptation design using machine learning (CLINT).  
**Geographical area:** European Union  
**Entity where project took place:** Universidad de Alcalá **Type of entity:** University  
**Name principal investigator (PI, Co-PI....):** Sancho Salcedo Sanz  
**Funding entity or bodies:** Comisión Europea **Type of entity:** Body, others  
**Name of the programme:** Horizon 2020 – the Framework Programme for Research and Innovation  
**Code according to the funding entity:** 101003876 - CLINT  
**Start-End date:** 01/07/2021 - 30/06/2024  
**Total amount:** 6.067.719,98 € **Sub-project amount:** 277.850,48 €
- 3** **Name of the project:** Programa microrredes inteligentes Comunidad de Madrid  
**Entity where project took place:** Universidad de Alcalá **Type of entity:** University  
**City of entity:** Alcalá de Henares,  
**Name principal investigator (PI, Co-PI....):** Silvia Jiménez Fernández; Enrique Alexandre Cortizo; Sancho Salcedo Sanz; Lucas Cuadra Rodríguez; José Antonio Portilla Figueras  
**Funding entity or bodies:** Comunidad de Madrid **Type of entity:** Comunidad de Madrid  
**City funding entity:** Madrid, Community of Madrid, Spain  
**Start-End date:** 01/01/2019 - 31/12/2021  
**Total amount:** 219.200 €
- 4** **Name of the project:** Nuevos algoritmos híbridos de inspiración natural para problemas de clasificación ordinal y predicción  
**Entity where project took place:** Universidad de Alcalá **Type of entity:** University  
**City of entity:** Alcalá de Henares, Community of Madrid, Spain  
**Name principal investigator (PI, Co-PI....):** Lucas Cuadra Rodríguez; Sancho Salcedo Sanz  
**Nº of researchers:** 6  
**Funding entity or bodies:** MINISTERIO DE EDUCACION Y CIENCIA  
**City funding entity:** Spain  
**Code according to the funding entity:** TIN2017-85887-C2-2-P  
**Start-End date:** 01/01/2018 - 31/12/2020  
**Total amount:** 73.326 €
- 5** **Name of the project:** Redes de Sensores Inalámbricas, Eficiencia Energética en la Edificación  
**Entity where project took place:** Universidad de Alcalá **Type of entity:** University  
**City of entity:** Alcalá de Henares, Community of Madrid, Spain  
**Name principal investigator (PI, Co-PI....):** Sancho Salcedo Sanz  
**Nº of researchers:** 5  
**Start-End date:** 15/10/2017 - 31/12/2018  
**Total amount:** 6.000 €



- 6** **Name of the project:** Programa de redes inteligentes en la Comunidad de Madrid (PRICAM)  
**Type of project:** Research and development, including transfer **Geographical area:** Regional  
**Entity where project took place:** Universidad de Alcalá **Type of entity:** University  
**Name principal investigator (PI, Co-PI....):** Sancho Salcedo-Sanz  
**Nº of researchers:** 8  
**Funding entity or bodies:** COMUNIDAD AUTONOMA DE MADRID  
**Code according to the funding entity:** S2013/ICE-2933\_02  
**Start-End date:** 01/10/2014 - 30/09/2018 **Duration:** 4 years  
**Participating entity/entities:** Universidad Carlos III de Madrid; Universidad Rey Juan Carlos; Universidad de Alcalá  
**Total amount:** 103.500 €  
**Dedication regime:** Part time
- 7** **Name of the project:** Nuevos algoritmos híbridos bio-inspirados para problemas de predicción en energías renovables  
**Entity where project took place:** Universidad de Alcalá **Type of entity:** University  
**City of entity:** Alcalá de Henares, Community of Madrid, Spain  
**Name principal investigator (PI, Co-PI....):** Sancho Salcedo Sanz; Enrique Alexandre Cortizo  
**Funding entity or bodies:** Ministerio de Economía y Hacienda **Type of entity:** Ministerio  
**City funding entity:** Madrid, Community of Madrid, Spain  
**Code according to the funding entity:** TIN2014-54583-C2-2-R  
**Start-End date:** 01/01/2015 - 30/06/2018  
**Participating entity/entities:** Universidad de Alcalá; Universidad de Córdoba  
**Total amount:** 65.340 €
- 8** **Name of the project:** Diseño de algoritmos de "Compressed Agregation" para la predicción y posicionamiento de generadores eólicos y fotovoltaicos en Microgrids  
**Entity where project took place:** Universidad de Alcalá **Type of entity:** University  
**City of entity:** Alcalá de Henares, Community of Madrid, Spain  
**Name principal investigator (PI, Co-PI....):** Antonio José Caamaño Fernández; Sancho Salcedo Sanz  
**Nº of researchers:** 7  
**Start-End date:** 01/10/2016 - 31/12/2017
- 9** **Name of the project:** Metaheurística para estrategias de desarrollo de políticas de inversión TIC en Latinoamérica  
**Entity where project took place:** Universidad de Alcalá **Type of entity:** University  
**City of entity:** Alcalá de Henares, Community of Madrid, Spain  
**Name principal investigator (PI, Co-PI....):** Silvia Jiménez Fernández  
**Nº of researchers:** 5  
**Code according to the funding entity:** CCG2016/EXP-077  
**Start-End date:** 16/12/2016 - 15/12/2017  
**Total amount:** 3.200 €



- 10** **Name of the project:** Diseño de algoritmos de soft-computing para problemas de predicción de energía eólica, fotovoltaica y mareomotriz por olas  
**Entity where project took place:** Universidad de Alcalá **Type of entity:** University  
**City of entity:** Alcalá de Henares, Community of Madrid, Spain  
**Name principal investigator (PI, Co-PI....):** Sancho Salcedo Sanz; Antonio José Caamaño Fernández  
**Nº of researchers:** 10  
**Funding entity or bodies:**  
Universidad de Alcalá **Type of entity:** University  
**City funding entity:** Alcalá de Henares, Community of Madrid, Spain  
Universidad Rey Juan Carlos **Type of entity:** University  
**City funding entity:** Móstoles, Community of Madrid, Spain  
**Start-End date:** 30/09/2015 - 31/12/2016  
**Total amount:** 4.000 €
- 11** **Name of the project:** CROMN: Algoritmos metaheurísticos para la optimización del coste de despliegue en redes de telecomunicación móvil  
**Type of project:** Research and development, including transfer  
**Entity where project took place:** Universidad de Alcalá **Type of entity:** University  
**Name principal investigator (PI, Co-PI....):** Silvia Jiménez Fernández  
**Nº of researchers:** 5  
**Funding entity or bodies:**  
Universidad de Alcalá **Type of entity:** University  
**City funding entity:** Alcalá de Henares, Community of Madrid, Spain  
**Code according to the funding entity:** CCG2013/EXP-062  
**Start-End date:** 02/12/2013 - 01/12/2014 **Duration:** 11 months - 29 days  
**Total amount:** 6.000 €  
**Dedication regime:** Full time
- 12** **Name of the project:** Algoritmos de soft computing mejorados para problemas de predicción en el análisis de entidades aseguradoras  
**Entity where project took place:** Universidad de Alcalá **Type of entity:** University  
**City of entity:** Alcalá de Henares, Community of Madrid, Spain  
**Name principal investigator (PI, Co-PI....):** Sancho Salcedo Sanz  
**Nº of researchers:** 8  
**Funding entity or bodies:**  
Ministerio de Economía y Hacienda **Type of entity:** Ministerio  
**City funding entity:** Madrid, Community of Madrid, Spain  
**Code according to the funding entity:** ECO2010-22065-C03-02  
**Start-End date:** 01/01/2011 - 31/12/2013  
**Total amount:** 48.400 €
- 13** **Name of the project:** Estudio de técnicas de procesado avanzado de señal para la detección y clasificación de vehículos por medio del sonido  
**Type of project:** Research and development, including transfer  
**Entity where project took place:** Universidad de Alcalá **Type of entity:** University  
**Name principal investigator (PI, Co-PI....):** Enrique Alexandre Cortizo



**Nº of researchers:** 6

**Funding entity or bodies:**

Universidad de Alcalá

**Type of entity:** University

**City funding entity:** Alcalá de Henares, Community of Madrid, Spain

**Code according to the funding entity:** UAH2011/EXP-026

**Start-End date:** 01/03/2012 - 28/02/2013

**Duration:** 1 year

**Participating entity/entities:** Universidad de Alcalá; Universidade de Vigo

**Total amount:** 8.500 €

**Dedication regime:** Full time

**14 Name of the project:** Investigación sobre técnicas mixtas de separación de fuentes de sonido multicanal para la reducción del ruido

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

**Geographical area:** National

**Entity where project took place:** Universidad de Alcalá

**Type of entity:** University

**Name principal investigator (PI, Co-PI....):** Manuel Rosa Zurera

**Nº of researchers:** 14

**Funding entity or bodies:**

MINISTERIO DE ECONOMIA Y COMPETITIVIDAD

**Code according to the funding entity:** TEC2009-14414-C03-03

**Start-End date:** 01/01/2010 - 31/12/2012

**Duration:** 3 years

**Participating entity/entities:** Universidad Politécnica de Valencia; Universidad de Alcalá; Universidad de Jaén; Universidad de Zaragoza; Universidade de Vigo

**Total amount:** 197.714 €

**Dedication regime:** Full time

**15 Name of the project:** Técnicas de reducción de la realimentación acústica mediante arrays de micrófonos: audífonos digitales y sistema manos libres en automóviles

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

**Geographical area:** Regional

**Entity where project took place:** Universidad de Alcalá

**Type of entity:** University

**Name principal investigator (PI, Co-PI....):** Manuel Utrilla Manso

**Nº of researchers:** 11

**Funding entity or bodies:**

Universidad de Alcalá

**Type of entity:** University

**City funding entity:** Alcalá de Henares, Community of Madrid, Spain

**Code according to the funding entity:** CCG10-UAH/TIC-5907

**Start-End date:** 01/01/2011 - 31/12/2011

**Duration:** 1 year

**Total amount:** 10.000 €

**Dedication regime:** Full time

**16 Name of the project:** Parametric audio/speech coder systems: synthesis and analysis methods, implementation based on the reconfigurable computing platform

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

**Geographical area:** Non EU International

**Entity where project took place:** Universidad de Alcalá

**Type of entity:** University

**Name principal investigator (PI, Co-PI....):** Alexander Petrovsky; Manuel Rosa Zurera

**Nº of researchers:** 9

**Funding entity or bodies:**Belarusian Republic Fundamental Researches Fund **Type of entity:** Public Research Body**City funding entity:** Byelorussia**Code according to the funding entity:** T08MC-040**Start-End date:** 11/04/2008 - 31/03/2010

- 17 Name of the project:** Técnicas híbridas de clasificación y separación ciega de fuentes de voz para la mejora de la inteligibilidad de la voz en audífonos digitales

**Type of project:** Research and development, including transfer **Geographical area:** Regional**Entity where project took place:** Universidad de Alcalá **Type of entity:** University**Name principal investigator (PI, Co-PI....):** Lucas Cuadra Rodríguez**Nº of researchers:** 9**Funding entity or bodies:**

Universidad de Alcalá

**Type of entity:** University**City funding entity:** Alcalá de Henares, Community of Madrid, Spain**Code according to the funding entity:** CCG08-UAH/TIC-4270**Start-End date:** 01/01/2009 - 31/12/2009**Duration:** 1 year**Total amount:** 22.902 €**Dedication regime:** Full time

- 18 Name of the project:** Análisis y clasificación automática de entornos acústicos

**Type of project:** Research and development, including transfer **Geographical area:** National**Entity where project took place:** Universidad de Alcalá **Type of entity:** University**Name principal investigator (PI, Co-PI....):** Manuel Rosa Zurera**Nº of researchers:** 10**Funding entity or bodies:**

MINISTERIO DE EDUCACION Y CIENCIA

**City funding entity:** Spain**Code according to the funding entity:** TEC2006-13883-C04-04**Start-End date:** 01/10/2006 - 30/09/2009**Duration:** 3 years**Participating entity/entities:** Universidad Politécnica de Valencia; Universidad de Alcalá; Universidad de Jaén; Universidad de Zaragoza; Universidade de Vigo**Total amount:** 112.046 €**Dedication regime:** Full time

- 19 Name of the project:** Efectos de la aritmética de precisión finita en la clasificación mediante redes neuronales de señales sonoras en audífonos digitales

**Type of project:** Research and development, including transfer **Geographical area:** Regional**Entity where project took place:** Universidad de Alcalá **Type of entity:** University**Name principal investigator (PI, Co-PI....):** Roberto Gil Pita**Nº of researchers:** 8**Funding entity or bodies:**

Universidad de Alcalá

**Type of entity:** University**City funding entity:** Alcalá de Henares, Community of Madrid, Spain



**Code according to the funding entity:** CCG07-UAH/TIC-1572  
**Start-End date:** 01/01/2008 - 31/12/2008      **Duration:** 1 year  
**Total amount:** 31.536,51 €  
**Dedication regime:** Full time

**20 Name of the project:** Dimensionado automático para la clasificación de señales sonoras utilizando métodos heurísticos bioinspirados. Aplicación a los audífonos digitales

**Type of project:** Research and development, including transfer      **Geographical area:** Regional

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

**Name principal investigator (PI, Co-PI....):** Enrique Alexandre Cortizo

**Nº of researchers:** 9

**Funding entity or bodies:**

Universidad de Alcalá      **Type of entity:** University

**City funding entity:** Alcalá de Henares, Community of Madrid, Spain

**Code according to the funding entity:** CCG06-UAH/TIC-0378

**Start-End date:** 01/01/2007 - 31/12/2007      **Duration:** 1 year

**Total amount:** 21.431 €

**Dedication regime:** Full time

**21 Name of the project:** Diseño y evaluación de herramientas para la caracterización automática de señales sonoras

**Type of project:** Research and development, including transfer      **Geographical area:** Regional

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

**Name principal investigator (PI, Co-PI....):** Enrique Alexandre Cortizo

**Nº of researchers:** 3

**Funding entity or bodies:**

Universidad de Alcalá      **Type of entity:** University

**Code according to the funding entity:** UAHPI2005/081

**Start-End date:** 22/02/2005 - 22/02/2007      **Duration:** 2 years

**Dedication regime:** Full time

**22 Name of the project:** Mejora de la inteligibilidad de la voz en audífonos digitales

**Type of project:** Research and development, including transfer      **Geographical area:** Regional

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

**Name principal investigator (PI, Co-PI....):** Francisco López Ferreras

**Nº of researchers:** 7

**Funding entity or bodies:**

Universidad de Alcalá      **Type of entity:** University

**City funding entity:** Alcalá de Henares, Community of Madrid, Spain

**Code according to the funding entity:** CAMUAH2005/036

**Start-End date:** 01/01/2006 - 31/12/2006      **Duration:** 1 year

**Total amount:** 18.000 €



- 23** **Name of the project:** Plataforma para la transmisión/recepción de audio avanzado bajo MPEG-4  
**Type of project:** Research and development, including transfer **Geographical area:** National  
**Entity where project took place:** Universidade de Vigo **Type of entity:** University  
**Name principal investigator (PI, Co-PI....):** Manuel Sobreira Seoane  
**Code according to the funding entity:** TIC2003-06841-C02-01  
**Start-End date:** 01/12/2003 - 30/11/2006  
**Participating entity/entities:** Universidad Politécnica de Valencia; Universidade de Vigo
- 24** **Name of the project:** Desarrollo de un prototipo de un sistema de transcripción automática de noticias  
**Type of project:** Research and development, including transfer **Geographical area:** National  
**Entity where project took place:** Universidade de Vigo  
**Name principal investigator (PI, Co-PI....):** Carmen García Mateo  
**Nº of researchers:** 5  
**Code according to the funding entity:** TIC2000-1104-C02-01  
**Start-End date:** 01/07/2001 - 30/06/2003  
**Participating entity/entities:** COMPAÑIA DE RADIO TELEVISION DE GALICIA; Universidade de Vigo  
**Dedication regime:** Full time
- 25** **Name of the project:** Acción integrada con Italia: Transmisión de voz adaptativa por redes IP  
**Geographical area:** European Union  
**Entity where project took place:** Universidade de Vigo **Type of entity:** University  
**Name principal investigator (PI, Co-PI....):** Carmen García Mateo  
**Nº of researchers:** 5  
**Code according to the funding entity:** HI1999-0110  
**Start-End date:** 01/01/2000 - 31/12/2001 **Duration:** 2 years
- 26** **Name of the project:** Compresión de la información en sistemas de audio tridimensional  
**Type of project:** Research and development, including transfer **Geographical area:** National  
**Entity where project took place:** Universidade de Vigo **Type of entity:** University  
**Name principal investigator (PI, Co-PI....):** Antonio Pena Giménez  
**Nº of researchers:** 8  
**Start-End date:** 01/01/2000 - 31/12/2000  
**Total amount:** 34.858,7 €
- 27** **Name of the project:** Estudio y validación de sistemas de control activo de ruido en conductos  
**Type of project:** Research and development, including transfer **Geographical area:** Regional  
**Entity where project took place:** Universidade de Vigo **Type of entity:** University  
**Name principal investigator (PI, Co-PI....):** Manuel Sobreira Seoane  
**Nº of researchers:** 6  
**Code according to the funding entity:** PGIDT99PXI32201A  
**Start-End date:** 01/01/1999 - 31/12/2000  
**Total amount:** 27.646,56 €



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

- 1** **Name of the project:** Prospectiva sobre 5G, la nueva generación de redes móviles para internet del futuro  
**Degree of contribution:** Researcher  
**Name principal investigator (PI, Co-PI....):** Antonio Portilla Figueras; Silvia Jiménez Fernández  
**N° of researchers:** 7  
**Funding entity or bodies:**  
Ingeniería de Sistemas para la Defensa de España, **Type of entity:** Business S.A.  
**City funding entity:** Madrid, Community of Madrid, Spain  
**Start date:** 14/02/2018 **Duration:** 1 month - 15 days  
**Total amount:** 20.750 €
- 2** **Name of the project:** Desarrollo de un simulador y optimizador para el proyecto Sierra  
**Degree of contribution:** Researcher  
**Name principal investigator (PI, Co-PI....):** Sancho Salcedo Sanz; Antonio Portilla Figueras  
**N° of researchers:** 7  
**Participating entity/entities:** Universidad de Alcalá  
**Funding entity or bodies:**  
Airbus Defence and Space S.A.U.  
**Start date:** 18/04/2017 **Duration:** 2 months - 12 days  
**Total amount:** 10.059,23 €
- 3** **Name of the project:** Realización informe pericial para D. José A. Trugueda Carrera que consiste en un estudio comparado entre los partes de trabajo presentados por D. Pascal Dupont y las facturas del uso de los servicios de telecomunicación asignados a su línea/contrato de telefonía móvil con Vodafone España S.A.  
**Degree of contribution:** Researcher  
**Name principal investigator (PI, Co-PI....):** Sancho Salcedo Sanz; Antonio Portilla Figueras  
**N° of researchers:** 5  
**Participating entity/entities:** Universidad de Alcalá  
**Funding entity or bodies:**  
José Antonio Trugeda Carrera  
**Start date:** 01/02/2016 **Duration:** 2 months  
**Total amount:** 2.854 €
- 4** **Name of the project:** Emisión de informes técnicos en la certificación de proyectos I+D+i por parte de los investigadores del Instituto Universidad de Alcalá  
**Degree of contribution:** Researcher  
**Name principal investigator (PI, Co-PI....):** José Antonio Portilla Figueras  
**Funding entity or bodies:**  
TUV Rheinland Iberia  
**Start date:** 01/01/2015 **Duration:** 1 year  
**Total amount:** 968 €
- 5** **Name of the project:** Analysis of Shadowing at Grazing Incidence to Derive Significant Wave Height  
**Type of project:** Research and development, including transfer  
**Degree of contribution:** Researcher



**Name principal investigator (PI, Co-PI....):** José Carlos Nieto Borge

**Nº of researchers:** 3

**Funding entity or bodies:**

COMPANY OCEANWAVES

**Code according to the funding entity:** 96/2013

**Start date:** 15/10/2013

**Duration:** 10 months - 28 days

**Total amount:** 15.000 €

**6 Name of the project:** Implementación de mejoras de aplicación CVCA

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

**Degree of contribution:** Researcher

**Name principal investigator (PI, Co-PI....):** Roberto Gil Pita

**Nº of researchers:** 6

**Funding entity or bodies:**

UPS SCS (SPAIN), S. L.

**Start date:** 22/05/2009

**Duration:** 1 month - 25 days

**Total amount:** 3.421,71 €

**7 Name of the project:** Comunicaciones vocales y sistemas de grabación

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

**Degree of contribution:** Researcher

**Name principal investigator (PI, Co-PI....):** Manuel Rosa Zurera

**Nº of researchers:** 5

**Funding entity or bodies:**

INDRA SISTEMAS, S.A.

**Start date:** 11/03/2009

**Duration:** 1 month - 17 days

**Total amount:** 15.640 €

**8 Name of the project:** Diseño de una aplicación para la gestión de servicios de aduanas (GSA)

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

**Degree of contribution:** Researcher

**Name principal investigator (PI, Co-PI....):** Roberto Gil Pita

**Nº of researchers:** 7

**Funding entity or bodies:**

UPS SCS (SPAIN), S. L.

**Start date:** 29/01/2008

**Duration:** 3 months - 6 days

**Total amount:** 4.215,44 €

**9 Name of the project:** Voice Communication Systems

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

**Degree of contribution:** Researcher

**Name principal investigator (PI, Co-PI....):** Manuel Rosa Zurera

**Nº of researchers:** 8

**Funding entity or bodies:**

INDRA SISTEMAS, S.A.

**Start date:** 22/10/2007

**Duration:** 1 month - 11 days

**Total amount:** 9.520 €



- 10** **Name of the project:** Implementación de mejoras en la aplicación de gestión de proveedores Gil Pro  
**Type of project:** Research and development, including transfer  
**Degree of contribution:** Researcher  
**Name principal investigator (PI, Co-PI....):** Roberto Gil Pita  
**Nº of researchers:** 7  
**Funding entity or bodies:**  
UPS SCS (SPAIN), S. L.  
**Start date:** 28/06/2007 **Duration:** 3 months - 3 days  
**Total amount:** 4.268,8 €
- 11** **Name of the project:** Asesoría para la implementación en tiempo real de un codec de audio mul- ticanal MPEG-2 capa II  
**Type of project:** Research and development, including transfer  
**Degree of contribution:** Researcher  
**Name principal investigator (PI, Co-PI....):** Enrique Alexandre Cortizo  
**Nº of researchers:** 1  
**Funding entity or bodies:**  
PROCESAMIENTO DIGITAL Y SISTEMAS, S.L.  
**Start date:** 01/02/2006 **Duration:** 2 months  
**Total amount:** 928 €
- 12** **Name of the project:** Implementación de mejoras en la aplicación Gil Scri  
**Type of project:** Research and development, including transfer  
**Degree of contribution:** Researcher  
**Name principal investigator (PI, Co-PI....):** Roberto Gil Pita  
**Nº of researchers:** 7  
**Funding entity or bodies:**  
UPS SCS (SPAIN), S. L.  
**Start date:** 25/01/2006 **Duration:** 10 months - 6 days  
**Total amount:** 3.895,28 €
- 13** **Name of the project:** Diseño de una aplicación de gestión de proveedores Gil Pro  
**Type of project:** Research and development, including transfer  
**Degree of contribution:** Researcher  
**Name principal investigator (PI, Co-PI....):** Roberto Gil Pita  
**Nº of researchers:** 7  
**Funding entity or bodies:**  
UPS SCS (SPAIN), S. L.  
**Start date:** 24/01/2006 **Duration:** 1 month - 5 days  
**Total amount:** 2.934,8 €
- 14** **Name of the project:** Estudio de técnicas de codificación multicanal  
**Type of project:** Research and development, including transfer  
**Degree of contribution:** Researcher  
**Name principal investigator (PI, Co-PI....):** Enrique Alexandre Cortizo  
**Nº of researchers:** 2  
**Funding entity or bodies:**  
PROCESAMIENTO DIGITAL Y SISTEMAS, S.L.  
**Start date:** 01/04/2005 **Duration:** 9 months



**Total amount:** 5.568 €

- 15** **Name of the project:** Desarrollo en lenguaje C de un codec de audio MPEG-4 y asesoría para la implementación del mismo en tiempo real  
**Type of project:** Research and development, including transfer  
**Degree of contribution:** Researcher  
**Name principal investigator (PI, Co-PI....):** Antonio Pena Giménez  
**Participating entity/entities:** Universidade de Vigo  
**Funding entity or bodies:**  
Procesamiento Digital y Sistemas S.L.  
**Start date:** 01/07/2001 **Duration:** 1 year
- 16** **Name of the project:** Desarrollo en lenguaje C de un codec de audio MPEG-2 AAC y asesoría para la implementación del mismo en tiempo real  
**Degree of contribution:** Researcher  
**Name principal investigator (PI, Co-PI....):** Antonio Pena Giménez  
**Funding entity or bodies:**  
Procesamiento Digital y Sistemas S.L.  
**Start date:** 01/02/2000 **Duration:** 1 year
- 17** **Name of the project:** Plan de acción para la protección contra la contaminación acústica en el sector productivo y terciario  
**Degree of contribution:** Researcher  
**Name principal investigator (PI, Co-PI....):** Manuel Sobreira Seoane  
**Funding entity or bodies:**  
Fundación Atlántica  
**Start date:** 01/01/2000 **Duration:** 2 years
- 18** **Name of the project:** Ampliación y mejora de la herramienta BK5305LBW  
**Name principal investigator (PI, Co-PI....):** Manuel Sobreira Seoane  
**Funding entity or bodies:**  
BRUEL AND KJAER IBERICA, S.A.  
**City funding entity:** Spain  
**Start date:** 01/11/1999 **Duration:** 4 months
- 19** **Name of the project:** Diseño y programación en lenguaje C de un algoritmo para la generación del sincronismo de byte en la salida binaria de un codificador ITU-G722  
**Name principal investigator (PI, Co-PI....):** Antonio Pena Giménez  
**Funding entity or bodies:**  
APLICACIONES ELECTRONICAS QUASAR, S.A.  
**City funding entity:** Spain  
**Start date:** 01/09/1999 **Duration:** 3 months
- 20** **Name of the project:** Módulo decodificador de audio MPEG en alto nivel  
**Funding entity or bodies:**  
SPICA S.L.  
**Start date:** 01/09/1999 **Duration:** 4 months



**21 Name of the project:** Realización en tiempo real sobre un microprocesador de señal de las recomendaciones ITU-H.221 y ITU-H.242

**Name principal investigator (PI, Co-PI....):** Antonio Pena Giménez

**Funding entity or bodies:**

APLICACIONES ELECTRONICAS QUASAR, S.A.

**City funding entity:** Spain

**Start date:** 01/09/1999

**Duration:** 4 months

**22 Name of the project:** Desarrollo en lenguaje C de un codec de audio MPEG-1 y asesoría para la implementación del mismo en tiempo real

**Degree of contribution:** Researcher

**Name principal investigator (PI, Co-PI....):** Antonio Pena Giménez

**Funding entity or bodies:**

Procesamiento Digital y Sistemas S.L.

**Start date:** 01/07/1999

**Duration:** 6 months

## Results

### Industrial and intellectual property

**Title registered industrial property:** Sistema para la detección de vehículos que circulan por una vía a partir del sonido

**Description of qualities:** Sistema para la detección de vehículos que circulan por una vía a partir del sonido

**Inventors/authors/obtainers:** María Soledad Torres Guijarro; Enrique Alexandre Cortizo; Manuel Sobreira Seoane; Antonio Pena Giménez; Roberto Gil Pita; Manuel Rosa Zurera

**Entity holder of rights:** Universidad de Alcalá

**Reference/registry code:** ES2334308

**Nº of application:** P200801046

**Country of inscription:** Spain

**Date of register:** 11/04/2008

**Conferral date:** 31/01/2011

**Spanish patent:** Yes

**EU patent:** No

**International non-EU patent:** No

**Operating aut.region/region:** Spain

**Relevant results:** Sistema para la detección de vehículos que circulan por una vía a partir del sonido



## Scientific and technological activities

### Scientific production

**H index:** 16

**Date of application:** 15/12/2021

**Fuente de Índice H:** GOOGLE SCHOLAR

### Publications, scientific and technical documents

- 1** Ricardo Torres López; David Casillas Pérez; Jorge Pérez Aracil; Laura Cornejo Bueno; Enrique Alexandre; Sancho Salcedo Sanz. Analysis of Machine Learning Approaches' Performance in Prediction Problems with Human Activity Patterns. Mathematics. 10 - 13, pp. 2187. 23/06/2022. ISSN 2227-7390  
**DOI:** 10.3390/math10132187  
**Type of production:** Scientific paper  
**Position of signature:** 5  
**Total no. authors:** 6  
**Impact source:** ISI  
**Impact index in year of publication:** 2.592  
**Position of publication:** 21  
**Format:** Journal  
**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee  
**Corresponding author:** No  
**Category:** Mathematics (miscellaneous)  
**Journal in the top 25%:** Yes  
**No. of journals in the cat.:** 333
- 2** Lucas Cuadra Rodríguez; Íñigo Ocampo Estrella; Enrique Alexandre Cortizo; Sancho Salcedo Sanz. A study on the impact of easements in the deployment of wind farms near airport facilities. Renewable Energy. 135, pp. 566 - 588. Elsevier, 01/05/2019. Available on-line at: <<https://doi.org/10.1016/j.renene.2018.12.038>>. ISSN 0960-1481  
**DOI:** 10.1016/j.renene.2018.12.038  
**Type of production:** Scientific paper  
**Position of signature:** 3  
**Total no. authors:** 4  
**Impact source:** ISI  
**Impact index in year of publication:** 6,274  
**Position of publication:** 9  
**Format:** Journal  
**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee  
**Corresponding author:** No  
**Category:** Green & Sustainable Science & Technology  
**Journal in the top 25%:** Yes  
**No. of journals in the cat.:** 41
- 3** Sancho Salcedo Sanz; Ricardo García Herrera; Carlos Camacho Gómez; Enrique Alexandre Cortizo; Leopoldo Carro Calvo; Fernando Jaime Santero. Near-optimal selection of representative measuring points for robust temperature field reconstruction with the CRO-SL and analogue methods. Global and Planetary Change. 178, pp. 15 - 34. Elsevier, 15/04/2019. Available on-line at: <<https://doi.org/10.1016/j.gloplacha.2019.04.013>>. ISSN 0921-8181  
**DOI:** 10.1016/j.gloplacha.2019.04.013  
**Type of production:** Scientific paper  
**Position of signature:** 4  
**Total no. authors:** 6  
**Impact source:** ISI  
**Impact index in year of publication:** 4.448  
**Position of publication:** 18  
**Format:** Journal  
**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee  
**Corresponding author:** No  
**Category:** GEOSCIENCES, MULTIDISCIPLINARY  
**Journal in the top 25%:** Yes  
**No. of journals in the cat.:** 200

- 4** Sancho Salcedo Sanz; Ricardo García Herrera; Carlos Camacho Gómez; Adrián Aybar Ruíz; Enrique Alexandre. Wind power field reconstruction from a reduced set of representative measuring points. *Applied Energy*. 228, pp. 1111 - 1121. Elsevier, 03/07/2018. Available on-line at: <<https://doi.org/10.1016/j.apenergy.2018.07.003>>. ISSN 0306-2619  
**DOI:** 10.1016/j.apenergy.2018.07.003  
**Type of production:** Scientific paper  
**Position of signature:** 5  
**Total no. authors:** 5  
**Impact source:** ISI  
**Impact index in year of publication:** 8,426  
**Position of publication:** 8  
**Format:** Journal  
**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee  
**Corresponding author:** No  
**Category:** ENERGY & FUELS  
**Journal in the top 25%:** Yes  
**No. of journals in the cat.:** 103
- 5** Andoni Elola; Javier del Ser; Miren Nekane Bilbao; Cristina Perfecto; Enrique Alexandre; Sancho Salcedo Sanz. Hybridizing Cartesian Genetic Programming and Harmony Search for adaptive feature construction in supervised learning problems. *Applied Soft Computing*. 52, pp. 760 - 770. Elsevier, 01/03/2017. Available on-line at: <<http://dx.doi.org/10.1016/j.asoc.2016.09.049>>. ISSN 1568-4946  
**DOI:** 10.1016/j.asoc.2016.09.049  
**Type of production:** Scientific paper  
**Position of signature:** 5  
**Total no. authors:** 6  
**Impact source:** ISI  
**Impact index in year of publication:** 3,907  
**Position of publication:** 17  
**Format:** Journal  
**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee  
**Corresponding author:** No  
**Category:** COMPUTER SCIENCE, ARTIFICIAL INTELLIGENCE  
**Journal in the top 25%:** Yes  
**No. of journals in the cat.:** 132
- 6** María Pérez Ortiz; Silvia Jiménez Fernández; Pedro A. Gutiérrez; Enrique Alexandre Cortizo; César Hervás Martínez; Sancho Salcedo Sanz. A Review of Classification Problems and Algorithms in Renewable Energy Applications. *Energies*. 9 - 607, pp. 1 - 27. MDPI, 02/08/2016. Available on-line at: <<http://doi.org/10.3390/en9080607>>. ISSN 1996-1073  
**DOI:** 10.3390/en9080607  
**Type of production:** Scientific paper  
**Position of signature:** 4  
**Total no. authors:** 6  
**Impact source:** ISI  
**Impact index in year of publication:** 2.262  
**Position of publication:** 45  
**Format:** Journal  
**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee  
**Corresponding author:** No  
**Category:** ENERGY & FUELS  
**Journal in the top 25%:** No  
**No. of journals in the cat.:** 92
- 7** Laura Cornejo Bueno; José Carlos Nieto Borge; Enrique Alexandre; Katreen Hessner; Sancho Salcedo Sanz. Accurate estimation of significant wave height with Support Vector Regression algorithms and marine radar images. *Coastal Engineering*. 114, pp. 233 - 243. Elsevier, 01/08/2016. Available on-line at: <<http://dx.doi.org/10.1016/j.coastaleng.2016.04.007>>. ISSN 0378-3839  
**DOI:** <http://dx.doi.org/10.1016/j.coastaleng.2016.04.007>  
**Type of production:** Scientific paper  
**Position of signature:** 3  
**Total no. authors:** 5  
**Format:** Journal  
**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee  
**Corresponding author:** No



**Impact source:** ISI  
**Impact index in year of publication:** 3.221  
**Position of publication:** 1

**Category:** ENGINEERING, OCEAN  
**Journal in the top 25%:** Yes  
**No. of journals in the cat.:** 14

- 8** Lucas Cuadra Rodríguez; Sancho Salcedo Sanz; José Carlos Nieto Borge; Enrique Alexandre Cortizo; Germán Rodríguez. Computational intelligence in wave energy: Comprehensive review and case study. *Renewable & Sustainable Energy Reviews*. 58, pp. 1223 - 1246. Elsevier, 05/2016. Available on-line at: <<http://dx.doi.org/10.1016/j.rser.2015.12.253>>. ISSN 1364-0321

**DOI:** 10.1016/j.rser.2015.12.253

**Type of production:** Scientific paper  
**Position of signature:** 4

**Format:** Journal

**Degree of contribution:** Author or co-author of article in journal without external admissions assessment committee

**Corresponding author:** No

**Category:** GREEN & SUSTAINABLE SCIENCE & TECHNOLOGY

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

**No. of journals in the cat.:** 31

**Total no. authors:** 5

**Impact source:** ISI

**Impact index in year of publication:** 8.050

**Position of publication:** 2

- 9** Enrique Alexandre Cortizo; Lucas Cuadra Rodríguez; José Carlos Nieto Borge; G. Gandil García; M. del Pino; Sancho Salcedo-Sanz. A hybrid genetic algorithm-extreme learning machine approach for accurate significant wave height reconstruction. *Ocean Modelling*. 92, pp. 115 - 123. (Holland): 31/08/2015. Available on-line at: <<http://dx.doi.org/10.1016/j.ocemod.2015.06.010>>. ISSN 1463-5003

**DOI:** 10.1016/j.ocemod.2015.06.010

**Type of production:** Scientific paper  
**Position of signature:** 1

**Format:** Journal

**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee

**Corresponding author:** Yes

**Category:** Oceanography

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

**No. of journals in the cat.:** 61

**Total no. authors:** 6

**Impact source:** ISI

**Impact index in year of publication:** 3.337

**Position of publication:** 8

- 10** Juan Carlos Fernández; Sancho Salcedo Sanz; Pedro Antonio Gutierrez; Enrique Alexandre; César Hervás. Significant wave height and energy flux range forecast with machine learning classifiers. *Engineering Applications of Artificial Intelligence*. 43, pp. 44 - 53. (United Kingdom): 01/08/2015. Available on-line at: <<http://dx.doi.org/10.1016/j.engappai.2015.03.012>>. ISSN 0952-1976

**DOI:** 10.1016/j.engappai.2015.03.012

**Type of production:** Scientific paper  
**Position of signature:** 3

**Format:** Journal

**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee

**Corresponding author:** No

**Category:** COMPUTER SCIENCE, ARTIFICIAL INTELLIGENCE

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

**No. of journals in the cat.:** 130

**Total no. authors:** 5

**Impact source:** ISI

**Impact index in year of publication:** 2.368

**Position of publication:** 32

- 11** Sancho Salcedo Sanz; José Carlos Nieto Borge; Leopoldo Carro Calvo; Lucas Cuadra Rodríguez; Katrin Hessner; Enrique Alexandre Cortizo. Significant wave height estimation using SVR algorithms and shadowing information from simulated and real measured X-band radar images of the sea surface. *Ocean Engineering*. 101, pp. 244 - 253. (United Kingdom): 01/06/2015. Available on-line at: <<http://dx.doi.org/10.1016/j.oceaneng.2015.04.041>>. ISSN 0029-8018





**DOI:** 10.1016/j.oceaneng.2015.04.041

**Type of production:** Scientific paper

**Position of signature:** 6

**Total no. authors:** 6

**Impact source:** ISI

**Impact index in year of publication:** 1.488

**Position of publication:** 2

**Format:** Journal

**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee

**Corresponding author:** No

**Category:** ENGINEERING, MARINE

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

**No. of journals in the cat.:** 14

- 12** Enrique Alexandre Cortizo; Sancho Salcedo Sanz; Lucas Cuadra Rodríguez; Álvaro Pastor Sánchez; Carlos Casanova Mateo. Hybridizing Extreme Learning Machines and Genetic Algorithms to Select Acoustic Features in Vehicle Classification Applications. *Neurocomputing*. 152, pp. 58 - 68. (Holland): 01/03/2015. Available on-line at: <<http://dx.doi.org/10.1016/j.neucom.2014.11.019>>. ISSN 0925-2312

**DOI:** 10.1016/j.neucom.2014.11.019

**Type of production:** Scientific paper

**Position of signature:** 1

**Total no. authors:** 5

**Impact source:** ISI

**Impact index in year of publication:** 2.392

**Position of publication:** 31

**Format:** Journal

**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee

**Corresponding author:** Yes

**Category:** COMPUTER SCIENCE, ARTIFICIAL INTELLIGENCE

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

**No. of journals in the cat.:** 130

- 13** Sancho Salcedo Sanz; Lucas Cuadra Rodríguez; Enrique Alexandre Cortizo; Silvia Jiménez Fernández; José A. Portilla Figueras. Soft-Computing: An Innovative Technological Solution for Urban Traffic-related Problems in Modern Cities. *Technological Forecasting and Social Change*. 89, pp. 236 - 244. (Holland): 01/11/2014. Available on-line at: <<http://dx.doi.org/10.1016/j.techfore.2013.08.035>>. ISSN 0040-1625

**DOI:** 10.1016/j.techfore.2013.08.035

**Type of production:** Scientific paper

**Position of signature:** 3

**Total no. authors:** 5

**Impact source:** ISI

**Impact index in year of publication:** 2.058

**Position of publication:** 6

**Format:** Journal

**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee

**Corresponding author:** No

**Category:** PLANNING & DEVELOPMENT

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

**No. of journals in the cat.:** 55

- 14** Roberto Gil Pita; Lucas Cuadra Rodríguez; Enrique Alexandre Cortizo; David Ayllón Álvarez; Lorena Álvarez Pérez; Manuel Rosa Zurera. Enhancing the energy efficiency of wireless-communicated binaural hearing aids for speech separation driven by soft-computing algorithms. *Applied Soft Computing Journal*. 12/7, pp. 1939 - 1949. (Holland): 01/07/2012. ISSN 1568-4946

**DOI:** 10.1016/j.asoc.2011.03.022

**Type of production:** Scientific paper

**Position of signature:** 3

**Total no. authors:** 6

**Impact source:** ISI

**Impact index in year of publication:** 2.140

**Position of publication:** 23

**Format:** Journal

**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee

**Corresponding author:** No

**Category:** Science Edition - COMPUTER SCIENCE, ARTIFICIAL INTELLIGENCE

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

**No. of journals in the cat.:** 115



- 15** Raúl Vicen Bueno; Rubén Carrasco Álvarez; M. Pilar Jarabo Amores; José Carlos Nieto Borge; Enrique Alexandre Cortizo. Detection of Ships in Marine Environments by Square Integration Mode and Multilayer Perceptrons. IEEE Transactions on Instrumentation and Measurement. 60 - 3, pp. 712 - 724. (United States of America): 01/03/2011. ISSN 0018-9456  
**DOI:** 10.1109/TIM.2010.2078330  
**Type of production:** Scientific paper  
**Position of signature:** 5  
**Total no. authors:** 5  
**Impact source:** ISI  
**Impact index in year of publication:** 1.214  
**Position of publication:** 106  
**Format:** Journal  
**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee  
**Corresponding author:** No  
**Category:** Science Edition - ENGINEERING, ELECTRICAL & ELECTRONIC  
**Journal in the top 25%:** No  
**No. of journals in the cat.:** 245
- 16** Lucas Cuadra Rodríguez; Roberto Gil Pita; Enrique Alexandre Cortizo; Manuel Rosa Zurera. Joint design of gaussianized spectrum-based features and least-square linear classifier for automatic acoustic environment classification in hearing aid. Signal Processing. 90 - 8, pp. 2628 - 2632. (Holland): 01/08/2010. ISSN 0165-1684  
**DOI:** 10.1016/j.sigpro.2010.02.024  
**Type of production:** Scientific paper  
**Position of signature:** 3  
**Total no. authors:** 4  
**Impact source:** ISI  
**Impact index in year of publication:** 1.373  
**Position of publication:** 88  
**Format:** Journal  
**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee  
**Corresponding author:** No  
**Category:** Science Edition - ENGINEERING, ELECTRICAL & ELECTRONIC  
**Journal in the top 25%:** No  
**No. of journals in the cat.:** 247
- 17** Roberto Gil Pita; Enrique Alexandre Cortizo; Lucas Cuadra Rodríguez; Raúl Vicen Bueno; Manuel Rosa Zurera. Analysis of the Effects of Finite Precision in Neural Network-Based Sound Classifiers for Digital Hearing Aids. EURASIP Journal on Advances in Signal Processing. 2009, pp. 1 - 12. 01/01/2009. ISSN 1687-6172  
**DOI:** 10.1155/2009/456945  
**Type of production:** Scientific paper  
**Position of signature:** 2  
**Total no. authors:** 5  
**Impact source:** ISI  
**Impact index in year of publication:** 0.885  
**Position of publication:** 132  
**Format:** Journal  
**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee  
**Corresponding author:** No  
**Category:** Science Edition - ENGINEERING, ELECTRICAL & ELECTRONIC  
**Journal in the top 25%:** No  
**No. of journals in the cat.:** 246
- 18** Lucas Cuadra Rodríguez; Enrique Alexandre Cortizo; Roberto Gil Pita; Raúl Vicen Bueno; Lorena Álvarez Pérez. Influence of Acoustic Feedback on the Learning Strategies of Neural Network-Based Sound Classifiers in Digital Hearing Aids. EURASIP Journal on Advances in Signal Processing. 2009, pp. 1 - 10. 01/01/2009. ISSN 1687-6172  
**DOI:** 10.1155/2009/465189  
**Type of production:** Scientific paper  
**Position of signature:** 2  
**Total no. authors:** 5  
**Impact source:** ISI  
**Impact index in year of publication:** 0.885  
**Format:** Journal  
**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee  
**Corresponding author:** No  
**Category:** Science Edition - ENGINEERING, ELECTRICAL & ELECTRONIC  
**Journal in the top 25%:** No

**Position of publication:** 132**No. of journals in the cat.:** 246

- 19** Enrique Alexandre Cortizo; Lucas Cuadra Rodríguez; Lorena Álvarez Pérez; Manuel Rosa Zurera; Francisco López Ferreras. Two-layer automatic sound classification system for conversation enhancement in hearing aids. Integrated Computer-Aided Engineering. 15/1, pp. 85 - 94. (Holland): 2008. ISSN 1069-2509

**Type of production:** Scientific paper**Format:** Journal**Position of signature:** 1**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee**Total no. authors:** 5**Corresponding author:** Yes**Impact source:** ISI**Category:** Science Edition - ENGINEERING, MULTIDISCIPLINARY**Impact index in year of publication:** 2.042**Journal in the top 25%:** Yes**Position of publication:** 7**No. of journals in the cat.:** 79

- 20** Enrique Alexandre Cortizo; Lucas Cuadra Rodríguez; Francisco López Ferreras; Manuel Rosa Zurera. Feature selection for sound classification in hearing aids through restricted search driven by genetic algorithms. IEEE Transactions on Audio, Speech and Language Processing. 15 - 8, pp. 2249 - 2256. (United States of America): 01/11/2007. ISSN 1558-7916

**DOI:** 10.1109/TASL.2007.905139**Type of production:** Scientific paper**Format:** Journal**Position of signature:** 1**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee**Total no. authors:** 4**Corresponding author:** Yes**Impact source:** ISI**Category:** Science Edition - ACOUSTICS**Impact index in year of publication:** 0.768**Journal in the top 25%:** No**Position of publication:** 14**No. of journals in the cat.:** 28

- 21** Enrique Alexandre; Antonio Pena; Manuel Sobreira. On the use of 2-D coding techniques for ECG signals. IEEE Transactions on information technology in biomedicine. 10 - 4, pp. 809 - 811. (United States of America): 01/10/2006. ISSN 1089-7771

**DOI:** 10.1109/TITB.2006.874926**Type of production:** Scientific paper**Format:** Journal**Corresponding author:** Yes**Impact source:** ISI**Category:** Science Edition - COMPUTER SCIENCE, INTERDISCIPLINARY APPLICATIONS**Impact index in year of publication:** 1.542**Journal in the top 25%:** Yes**Position of publication:** 20**No. of journals in the cat.:** 87

- 22** Enrique Alexandre Cortizo; ANTONIO PENA GIMENEZ; MANUEL A SOBREIRA SEOANE. Low complexity bit allocation algorithm for MPEG AAC audio coders. IEEE Signal Processing Letters. 12/12, pp. 824 - 827. (United States of America): 01/12/2005. ISSN 1070-9908

**DOI:** 10.1109/LSP.2005.859520**Type of production:** Scientific paper**Format:** Journal**Position of signature:** 1**Degree of contribution:** Author or co-author of article in journal with external admissions assessment committee**Total no. authors:** 3**Corresponding author:** Yes**Impact source:** ISI**Category:** Science Edition - ENGINEERING, ELECTRICAL & ELECTRONIC**Impact index in year of publication:** 0.611**Journal in the top 25%:** Yes**Position of publication:** 117**No. of journals in the cat.:** 208



- 23** Carlos Mosquera; Juan A. Gómez; Fernando Pérez; Manuel Sobreira; Enrique Alexandre. Adaptive IIR filters for active noise control. *International Journal of Acoustics and Vibration*. 6 - 1, pp. 3 - 10. 01/03/2001.  
**Type of production:** Scientific paper **Format:** Journal  
**Corresponding author:** No
- 24** Pedro Antonio Gutiérrez; Juan Carlos Fernández; María Pérez Ortiz; Laura Cornejo Bueno; Enrique Alexandre Cortizo; Sancho Salcedo Sanz; Cesar Hervás Martínez. Energy flux range classification by using a dynamic window autoregressive model. *Advances in Computational Intelligence*. (Germany): Springer, 2015. ISBN 978-3-319-19221-5  
**DOI:** 10.1007/978-3-319-19222-2-8  
**Type of production:** Book chapter **Format:** Book  
**Position of signature:** 5 **Degree of contribution:** Author or co-author of chapter in book  
**Total no. authors:** 7 **Corresponding author:** No
- 25** Sancho Salcedo Sanz; Lucas Cuadra Rodríguez; José A. Portilla Figueras; Silvia Jiménez Fernández; Enrique Alexandre Cortizo. Statistical and Soft Computing Approaches in Insurance Problems. A review of computational intelligence algorithms in insurance applications. (Spain): 01/07/2013. ISBN 978-1-62618-512-8  
**Type of production:** Book chapter **Format:** Book  
**Position of signature:** 5 **Degree of contribution:** Author or co-author of chapter in book  
**Total no. authors:** 5 **Corresponding author:** No
- 26** Lorena Álvarez Pérez; Enrique Alexandre Cortizo; Lucas Cuadra Rodríguez; Roberto Gil Pita; Cosme LLerena Aguilar. Speech Enhancement in Noisy Environments in Hearing Aids Driven by a Tailored Gain Function Based on a Gaussian Mixture Model. *Artificial intelligence and soft computing*. 7894/2013/Part I, pp. 503 - 514. 2013. ISBN 978-3-642-38657-2  
**Type of production:** Book chapter **Format:** Book  
**Position of signature:** 2 **Degree of contribution:** Author or co-author of chapter in book  
**Total no. authors:** 5 **Corresponding author:** No
- 27** Enrique Alexandre Cortizo; Lucas Cuadra Rodríguez; Roberto Gil Pita. Sound classification in hearing aids by the harmony search algorithm. *Music-inspired harmony search algorithm. Theory and applications*. (Germany): Springer-Verlag, 2009. ISBN 978-3-642-00184-0  
**Type of production:** Book chapter **Format:** Book  
**Position of signature:** 1 **Degree of contribution:** Author or co-author of chapter in book  
**Total no. authors:** 3 **Corresponding author:** Yes
- 28** Enrique Alexandre; Lucas Cuadra; Manuel Rosa; Francisco López. Speech/non-speech classification in hearing aids driven by tailored neural networks. *Speech, Audio, Image and Biomedical signal processing using neural networks*. (Germany): Springer-Verlag, 2008. ISBN 978-3-540-75397-1  
**Type of production:** Book chapter **Format:** Book  
**Position of signature:** 1 **Degree of contribution:** Author or co-author of chapter in book  
**Total no. authors:** 4 **Corresponding author:** Yes
- 29** Enrique Alexandre Cortizo; Lorena Álvarez Pérez; Lucas Cuadra Rodríguez; Manuel Rosa Zurera; Francisco López Ferreras. Automatic sound classification algorithm for hearing aids using a hierarchical taxonomy. *New trends in audio and video*. 1, pp. 317 - 323. (Poland): Wydawnictwo Politechniki Białostockiej, 2006. ISSN 0867-096X



**Type of production:** Book chapter  
**Position of signature:** 1

**Total no. authors:** 5

**Format:** Book

**Degree of contribution:** Author or co-author of chapter in book

**Corresponding author:** Yes

- 30** Enrique Alexandre Cortizo; Lucas Cuadra Rodríguez; Lorena Álvarez Pérez; Manuel Rosa Zurera; Francisco López Ferreras. Automatic sound classification for improving speech intelligibility in hearing aids using a layered structure. Intelligent Data Engineering and Automated Learning. 4224/2006, pp. 306 - 313. (United States of America): Springer, 2006. ISBN 978-3-540-45485-4

**Type of production:** Book chapter  
**Position of signature:** 1

**Total no. authors:** 5

**Format:** Book

**Degree of contribution:** Author or co-author of chapter in book

**Corresponding author:** Yes

- 31** Manuel Rosa Zurera; Nicolás Ruiz Reyes; Pedro Vera Candeas; Enrique Alexandre Cortizo. Parametric audio coding with sparse representations. New trends in audio and video. (Poland): Wydawnictwo Politechniki Białostockiej, 2006.

**Type of production:** Book chapter  
**Position of signature:** 4

**Total no. authors:** 4

**Format:** Book

**Degree of contribution:** Author or co-author of chapter in book

**Corresponding author:** No

- 32** Antonio Pena; Enrique Alexandre. Artifacts in frequency and their variation in time (birdies). Perceptual audio coders: what to listen for?. Audio Engineering Society, 2001.

**Type of production:** Book chapter  
**Corresponding author:** No

**Format:** Book

- 33** MANUEL A SOBREIRA SEOANE; Enrique Alexandre Cortizo; Juan Laredo. Guía para el control del ruido. (Spain): 01/10/2001. ISBN 84-607-1601-5

**Type of production:** Scientific book or monograph  
**Position of signature:** 1

**Total no. authors:** 3

**Format:** Book

**Degree of contribution:** Author or co-author of entire book

**Corresponding author:** No

## Works submitted to national or international conferences

- 1** **Title of the work:** A Metaheuristic approach to select Representative Measuring Points for Temperature Field Reconstruction

**Name of the conference:** EMS Annual Meeting

**Corresponding author:** No

**City of event:** Budapest, Hungary

**Date of event:** 03/09/2018

**End date:** 07/09/2018

**Organising entity:** European Meteorological Society

Sancho Salcedo Sanz; Ricardo García Herrera; Carlos Camacho Gómez; Enrique Alexandre; Leopoldo Carro Calvo; Fernando Jaime Santero.

- 2** **Title of the work:** A Grouping Genetic Algorithm – Extreme Learning Machine Approach for Optimal Wave Energy Prediction

**Name of the conference:** IEEE Congress on Evolutionary Computation

**Corresponding author:** No



**City of event:** Vancouver, Canada

**Date of event:** 24/07/2016

**End date:** 29/07/2016

**Organising entity:** IEEE

Laura Cornejo Bueno; Adrián Aybar Ruíz; Silvia Jiménez Fernández; Enrique Alexandre; José Carlos Nieto Borge; Sancho Salcedo Sanz.

**3 Title of the work:** Energy flux range classification by using a dynamic window autoregressive model

**Name of the conference:** IWANN

**Corresponding author:** No

**Date of event:** 10/06/2015

**End date:** 12/06/2015

Pedro Gutiérrez; Juan Carlos Fernández; María Pérez Ortiz; Laura Cornejo Bueno; Enrique Alexandre Cortizo; Sancho Salcedo Sanz; César Hervás Martínez.

**4 Title of the work:** A novel pointer-encoding genetic programming algorithm for classification problems

**Name of the conference:** 15th Applied Stochastic Models and Data Analysis International Conference

**Geographical area:** Non EU International

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

**City of event:** Mataro, Spain

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

**End date:** 28/06/2013

**City organizing entity:** Mataro, Spain

Leopoldo Carro Calvo; Sancho Salcedo-Sanz; José A. Portilla Figueras; Silvia Jiménez Fernández; Enrique Alexandre Cortizo; Lucas Cuadra Rodríguez.

**5 Title of the work:** Optimal quantisation and transmission for ECG signals using genetic algorithms

**Name of the conference:** 15th Applied Stochastic Models and Data Analysis International Conference

**Corresponding author:** No

**City of event:** Barcelona, Spain

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

**End date:** 28/06/2013

Álvaro Pastor Sánchez; Enrique Alexandre; Sancho Salcedo Sanz; Daniel Gallo Marazuela; Lucas Cuadra.

**6 Title of the work:** Combination of growing and pruning algorithms for multilayer perceptrons for speech/music/noise classification in digital hearing aids

**Name of the conference:** 134th International Audio Engineering Society (AES) Convention

**Geographical area:** Non EU International

**Type of participation:** Participatory - poster

**City of event:** Roma, Italy

**Date of event:** 04/05/2013

**End date:** 07/05/2013

**City organizing entity:** Roma, Italy

Lorena Álvarez Pérez; Enrique Alexandre Cortizo; Manuel Rosa Zurera; Roberto Gil Pita; Cosme Llerena Aguilar. "Audio Engineering Society Convention 134". pp. 1 - 10. AUDIO ENGINEERING SOCIETY INC, ISBN 978-0-937803-91-2

**7 Title of the work:** Selección de funciones de activación aproximadas para clasificadores para clasificadores basados en redes neuronales en audífonos digitales

**Geographical area:** National

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

**City of event:** LEGANES, CARRETERA DE (GETAFE), Spain



**Date of event:** 07/09/2011

**End date:** 09/09/2011

**City organizing entity:** LEGANES, CARRETERA DE (GETAFE), Spain

Lorena Álvarez Pérez; Cosme Llerena Aguilar; Enrique Alexandre Cortizo. "URSI leganés 2011 XXVI Edición de URSI y Workshop Internacional en Ingeniería en frecuencias de THz". COPYRED, SERVICIOS GRAFICOS, ISBN 978-84-933934-5-8

**8 Title of the work:** Application of Neural Networks to Speech/Music/Noise Classification in Digital Hearing Aids

**Name of the conference:** The 11th WSEAS International Conference on SIGNAL PROCESSING, COMPUTATIONAL GEOMETRY and ARTIFICIAL VISION (ISCGAV'11)

**Geographical area:** Non EU International

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

**City of event:** Florencia, Italy

**Date of event:** 23/08/2011

**End date:** 25/08/2011

**City organizing entity:** Florencia, Italy

Lorena Álvarez Pérez; Cosme Llerena Aguilar; Enrique Alexandre Cortizo. "Recent Advances in Signal Processing, Computational Geometry and Systems Theory. Proceedings of the 11th WSEAS International Conference on SIGNAL PROCESSING, COMPUTATIONAL GEOMETRY and ARTIFICIAL VISION (ISCGAV'11)". pp. 97 - 102. WSEAS, ISBN 978-1-61804-027-5

**9 Title of the work:** Selection of Approximated Activation Function in Neural Network-Based Sound Classifiers for Digital Hearing Aids

**Name of the conference:** 130th AES Convention

**Geographical area:** European Union

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

**City of event:** Londres, United Kingdom

**Date of event:** 13/05/2011

**End date:** 16/05/2011

**City organizing entity:** Londres, United Kingdom

Lorena Álvarez Pérez; Cosme Llerena Aguilar; Enrique Alexandre Cortizo; Roberto Gil Pita; Manuel Rosa Zurera.

**10 Title of the work:** Application of diametrical clustering to tree-based matching pursuit for sinusoidal modeling

**Geographical area:** Non EU International

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

**City of event:** Denmark

**Date of event:** 23/08/2010

**End date:** 27/08/2010

**City organizing entity:** Denmark

Enrique Alexandre Cortizo; Manuel Rosa Zurera; M. Pilar Jarabo Amores; Roberto Gil Pita; Lucas Cuadra Rodríguez.

**11 Title of the work:** Evaluation of Speech Intelligibility in Digital Hearing Aids

**Name of the conference:** 128th AES Convention

**Geographical area:** Non EU International

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

**City of event:** Londres, United Kingdom

**Date of event:** 22/05/2010

**End date:** 25/05/2010

**City organizing entity:** Londres, United Kingdom



Lorena Álvarez Pérez; Leticia Vaquero León; Lucas Cuadra Rodríguez; Enrique Alexandre Cortizo; Roberto Gil Pita.

- 12** **Title of the work:** Violence prediction through emotional speech  
**Name of the conference:** 128th Convention of Audio Engineering Society  
**Geographical area:** Non EU International  
**Type of participation:** Participatory - oral communication  
**City of event:** Londres, United Kingdom  
**Date of event:** 22/05/2010  
**End date:** 25/05/2010  
**City organizing entity:** Londres, United Kingdom  
José Higuera Soler; Roberto Gil Pita; Enrique Alexandre Cortizo; Manuel Rosa Zurera.
- 13** **Title of the work:** Algoritmos de poda para perceptrones multicapa para la clasificación voz/no-voz en audífonos digitales  
**Name of the conference:** XXIV Simposium Nacional de la Unión Científica Internacional de Radio (URSI 2009)  
**Geographical area:** National  
**Type of participation:** Participatory - oral communication  
**City of event:** Santander, Spain  
**Date of event:** 16/09/2009  
**End date:** 18/09/2009  
**City organizing entity:** Santander, Spain  
Lorena Álvarez Pérez; Enrique Alexandre Cortizo; Manuel Rosa Zurera. "Libro de actas del XXIV Simposium Nacional de la Unión Científica Internacional de Radio (URSI'09)". PubliCan - Ediciones de la Universidad de Cantabria, ISBN 978-84-8102-550-7
- 14** **Title of the work:** II Jornadas ID+TIC  
**Geographical area:** Others  
**Type of participation:** Participatory - others  
**City of event:** Spain  
**Date of event:** 21/05/2009  
**End date:** 31/05/2009  
**City organizing entity:** Spain  
Enrique Alexandre Cortizo.
- 15** **Title of the work:** WOLA filter bank design requirements in hearing aids  
**Name of the conference:** 10th International Conference on Pattern Recognition and Information Processing  
**Geographical area:** Non EU International  
**Type of participation:** Participatory - oral communication  
**City of event:** Minsk, Byelorussia  
**Date of event:** 19/05/2009  
**End date:** 21/05/2009  
**City organizing entity:** Minsk, Byelorussia  
Manuel Rosa Zurera; Roberto Gil Pita; Enrique Alexandre Cortizo; Manuel Utrilla Manso; Lucas Cuadra Rodríguez. pp. 215 - 218. ISBN 978-985-476-704-8
- 16** **Title of the work:** On the design of automatic sound classification systems for digital hearing aids  
**Name of the conference:** 126th Audio Engineering Society Convention  
**Geographical area:** Non EU International  
**Type of participation:** Participatory - oral communication





**City of event:** Munich, Germany

**Date of event:** 07/05/2009

**End date:** 10/05/2009

**City organizing entity:** Munich, Germany

Enrique Alexandre Cortizo; Lorena Álvarez Pérez; Roberto Gil Pita; Raúl Vicen-Bueno; Lucas Cuadra Rodríguez. pp. 1 - 19. ISBN 978-0-937803-67-7

- 17** **Title of the work:** Pruning Algorithms for Multilayer Perceptrons Tailored for Speech/Non-Speech Classification in Digital Hearing Aids  
**Name of the conference:** 126th AES Convention  
**Geographical area:** European Union  
**Type of participation:** Participatory - oral communication  
**City of event:** Munich, Germany  
**Date of event:** 07/05/2009  
**End date:** 10/05/2009  
**City organizing entity:** Munich, Germany  
Lorena Álvarez Pérez; Enrique Alexandre Cortizo; Manuel Rosa Zurera.
- 18** **Title of the work:** Algoritmos de Crecimiento para perceptrones multicapa para la clasificación voz/no-voz en audífonos digitales  
**Name of the conference:** XXIII Simposim Nacional de la Unión Científica Internacional de Radio (URSI 2008)  
**Geographical area:** National  
**Type of participation:** Participatory - oral communication  
**City of event:** Madrid, Spain  
**Date of event:** 22/09/2008  
**End date:** 24/09/2008  
**City organizing entity:** Madrid, Spain  
Lorena Álvarez Pérez; Enrique Alexandre Cortizo; Manuel Rosa Zurera. "Libro de actas del XXIII Simposium Nacional de la Unión Científica Internacional de Radio (URSI'08)". Luis Javier García Villalba, ISBN 978-84-612-6291-5
- 19** **Title of the work:** Clasificación automática de sonido binaural en audífonos digitales  
**Name of the conference:** XXIII Simposium Nacional de la Unión Científica Internacional de Radio  
**Geographical area:** National  
**Type of participation:** Participatory - oral communication  
**City of event:** Madrid, Spain  
**Date of event:** 22/09/2008  
**End date:** 24/09/2008  
**City organizing entity:** Madrid, Spain  
Ángela Mejías Pérez; Roberto Gil Pita; Enrique Alexandre Cortizo. "Libro de Actas del XXIII Simposium Nacional de la Unión Científica Internacional de Radio".
- 20** **Title of the work:** Speech/music/noise classification in hearing aids using a two-layer classification system with MSE linear discriminants  
**Name of the conference:** 16th European Signal Processing Conference (EUSIPCO 2008)  
**Geographical area:** European Union  
**Type of participation:** Participatory - oral communication  
**City of event:** Lausanne, Switzerland  
**Date of event:** 25/08/2008  
**End date:** 29/08/2008  
**City organizing entity:** Lausanne, Switzerland



Enrique Alexandre Cortizo; Roberto Gil Pita; Lucas Cuadra Rodríguez; Lorena Álvarez Pérez; Manuel Rosa Zurera.

**21 Title of the work:** Reducing the computational cost for sound classification in hearing aids by selecting features via genetic algorithms with restricted search

**Name of the conference:** IEEE International conference on Audio, Language and Image Processing (ICALIP2008)

**Geographical area:** Non EU International

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

**City of event:** Shangai, China

**Date of event:** 07/07/2008

**End date:** 09/07/2008

**City organizing entity:** Shangai, China

Lucas Cuadra Rodríguez; Enrique Alexandre Cortizo; Lorena Álvarez Pérez; Manuel Rosa Zurera. "Audio, Language and Image Processing, 2008. ICALIP 2008. International Conference on". pp. 1320 - 1327. ISBN 978-1-4244-1724-7

**22 Title of the work:** A Constructive Algorithm for Multilayer Perceptrons for Speech/Non-Speech Classification in Hearing Aids

**Name of the conference:** 124th Convention

**Geographical area:** Non EU International

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

**City of event:** Amsterdam, Holland

**Date of event:** 17/05/2008

**End date:** 20/05/2008

**City organizing entity:** Amsterdam, Holland

Lorena Álvarez Pérez; Enrique Alexandre Cortizo; Raúl Vicen-Bueno; Lucas Cuadra Rodríguez; Manuel Rosa Zurera.

**23 Title of the work:** Analysis of the effects of finite precision in sound classifiers for digital hearing aids

**Name of the conference:** 124th Audio Engineering Society Convention

**Geographical area:** Non EU International

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

**City of event:** Amsterdam, Holland

**Date of event:** 17/05/2008

**End date:** 20/05/2008

**City organizing entity:** Amsterdam, Holland

Ester Huerta Navas; Enrique Alexandre Cortizo; Roberto Gil Pita; Lorena Álvarez Pérez; Javier Amor Martín.

**24 Title of the work:** Music-inspired harmony search algorithm applied to feature selection for sound classification in hearing aids

**Name of the conference:** 124th Audio Engineering Society Convention

**Geographical area:** Non EU International

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

**City of event:** Amsterdam, Holland

**Date of event:** 17/05/2008

**End date:** 20/05/2008

**City organizing entity:** Amsterdam, Holland

Javier Amor Martín; Enrique Alexandre Cortizo; Roberto Gil Pita; Lorena Álvarez Pérez; Ester Huerta Navas.



- 25** **Title of the work:** Musical-inspired features for automatic sound classification in digital hearing aids  
**Geographical area:** Non EU International  
**Type of participation:** Participatory - oral communication  
**City of event:** Amsterdam, Holland  
**Date of event:** 2008  
**End date:** 31/12/2008  
**City organizing entity:** Amsterdam, Holland  
Enrique Alexandre Cortizo; Pedro Vera Candeas; Nicolás Ruiz Reyes; Manuel Rosa Zurera.
- 26** **Title of the work:** On the evaluation of the performance of music instrument classification systems  
**Name of the conference:** AES Portugal 10th meeting  
**Geographical area:** Non EU International  
**Type of participation:** Participatory - oral communication  
**City of event:** Lisboa, Portugal  
**Date of event:** 2008  
**End date:** 31/12/2008  
**City organizing entity:** Lisboa, Portugal  
Enrique Alexandre Cortizo; Roberto Gil Pita; Gianpaolo Evangelista; Pedro Vera Candeas.
- 27** **Title of the work:** NN-based automatic sound classifier for digital hearing aids  
**Name of the conference:** IEEE International Symposium on Intelligent Signal Processing, 2007 (WISP 2007)  
**Geographical area:** Non EU International  
**Type of participation:** Participatory - poster  
**City of event:** Alcalá de Henares, Spain  
**Date of event:** 03/10/2007  
**End date:** 05/10/2007  
**City organizing entity:** Alcalá de Henares, Spain  
Enrique Alexandre Cortizo; Lucas Cuadra Rodríguez; Lorena Álvarez Pérez; Manuel Rosa Zurera.  
"Proceeding of Intelligent Signal Processing, 2007. WISP 2007. IEEE International Symposium on". ISBN 978-1-4244-0830-6
- 28** **Title of the work:** Exploring the feasibility of a two-layer NN-based sound classifier for hearing aids  
**Name of the conference:** 15th European Signal Processing Conference (EUSIPCO 2007)  
**Geographical area:** European Union  
**Type of participation:** Participatory - oral communication  
**City of event:** Poznan, Poland  
**Date of event:** 03/09/2007  
**End date:** 07/09/2007  
**City organizing entity:** Poznan, Poland  
Enrique Alexandre Cortizo; Lucas Cuadra Rodríguez; Lorena Álvarez Pérez; Manuel Utrilla Manso.
- 29** **Title of the work:** On the Training of Multilayer Perceptrons for Speech/Non-speech Classification in Hearing Aids  
**Name of the conference:** 122th Convention  
**Geographical area:** European Union  
**Type of participation:** Participatory - oral communication  
**City of event:** Viena, Austria  
**Date of event:** 05/05/2007  
**End date:** 08/05/2007  
**City organizing entity:** Viena, Austria



Lorena Álvarez Pérez; Enrique Alexandre Cortizo; Lucas Cuadra Rodríguez; Manuel Rosa Zurera.

- 30** **Title of the work:** Discriminación automática voz/no-voz mediante combinación de clasificadores  
**Name of the conference:** XXI Simposium Nacional de la Unión Internacional de Radio (URSI 2006)  
**Geographical area:** National  
**Type of participation:** Participatory - oral communication  
**City of event:** Oviedo, Spain  
**Date of event:** 12/09/2006  
**End date:** 15/09/2006  
**City organizing entity:** Oviedo, Spain  
Lorena Álvarez Pérez; Enrique Alexandre Cortizo; Lucas Cuadra Rodríguez; Roberto Gil Pita; Francisco López Ferreras. "Libro de Actas del XXI Simposium Nacional de la Unión Científica de Radio (URSI'06)". pp. 1730 - 1733. Ediciones Universidad de Oviedo, ISBN 84-611-2488-X
- 31** **Title of the work:** Application of Fisher Linear Discriminant Analysis to Speech/Music classification  
**Name of the conference:** 122th Convention of the Audio Engineering Society (AES 2006)  
**Geographical area:** Non EU International  
**Type of participation:** Participatory - oral communication  
**City of event:** París, France  
**Date of event:** 20/05/2006  
**End date:** 23/05/2006  
**City organizing entity:** París, France  
Enrique Alexandre Cortizo; Manuel Rosa Zurera; Lucas Cuadra Rodríguez; Roberto Gil Pita. "Proceedings of the 122th Convention of the Audio Engineering Society (AES 2006)". pp. 1 - 7.
- 32** **Title of the work:** Quality Control in the Radio Nacional de España Sound Archive Digitization Process  
**Name of the conference:** 5th WSEAS Int. Conf. on Signal Processing, Robotics and Automation  
**Corresponding author:** No  
**City of event:** Madrid, Community of Madrid, Spain  
**Date of event:** 15/02/2006  
**End date:** 17/02/2006  
Roberto Gil Pita; Raúl Vicen Bueno; Enrique Alexandre Cortizo; Juan C. Gómez Cornejo; Miguel J. Rodeño Arráez.
- 33** **Title of the work:** Clasificación automática de voz/música utilizando discriminantes lineales de Fisher  
**Name of the conference:** URSI-2005  
**Geographical area:** National  
**Type of participation:** Participatory - others  
**City of event:** Valencia, Spain  
**Date of event:** 14/09/2005  
**City organizing entity:** Valencia, Spain  
Enrique Alexandre Cortizo; Manuel Rosa Zurera. "Actas del Congreso".
- 34** **Title of the work:** Efficient bit allocation for high quality subband coding using non-selective filter banks under quantization noise constraints  
**Name of the conference:** 13th European Signal Processing Conference (EUSIPCO 2005)  
**Geographical area:** Non EU International  
**Type of participation:** Participatory - oral communication  
**City of event:** Antalya, Turkey  
**Date of event:** 04/09/2005  
**City organizing entity:** Antalya, Turkey



Manuel Rosa Zurera; Miguel Ángel López Carmona; Enrique Alexandre Cortizo; Roberto Gil Pita. "Actas del Congreso". ISBN 957-00188-0-X

**35 Title of the work:** Efficient bit allocation for high quality subband coding using non-selective filter banks under quantization noise constraints

**Name of the conference:** EUSIPCO 2005

**Geographical area:** Non EU International

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

**City of event:** Turkey

**Date of event:** 04/09/2005

**City organizing entity:** Turkey

Manuel Rosa Zurera; Miguel Ángel López Carmona; Enrique Alexandre Cortizo; GIL SANZ RAQUEL. "Actas del Congreso".

### Works submitted to national or international seminars, workshops and/or courses

**1 Title of the work:** Detección y clasificación automática de vehículos por medio del sonido

**Name of the event:** I Encuentro de Investigadores en Infraestructuras Inteligentes

**Date of event:** 2011

**Organising entity:** PARQUE CIENTIFICO TECNOLOGICO UNIVERSIDAD DE ALCALA SA

**2 Title of the work:** Tratamiento digital de señales

**Name of the event:** Conferencia impartida a los oficiales del Curso de especialización en Electrónica, Comunicaciones y Comunicaciones Tácticas de la Armada

**Date of event:** 2002

**Organising entity:** Escuela de Transmisiones y Electrónica de la Armada

**3 Title of the work:** Sistemas de Son

**Name of the event:** Conferencia impartida a personal de la TVG

**Date of event:** 2001

**Organising entity:** COMPAÑIA DE RADIO TELEVISION DE GALICIA

**4 Title of the work:** Tratamiento Digital de Señales

**Name of the event:** Conferencia impartida a los oficiales del Curso de especialización en Electrónica, Comunicaciones y Comunicaciones Tácticas de la Armada

**City of event:** Vigo, Spain

**Date of event:** 2001

**Organising entity:** Escuela de Transmisiones y Electrónica de la Armada

### Other dissemination activities

**1 Title of the work:** La música y el cerebro

**Name of the event:** XIV Semana de la Ciencia

**Type of event:** Conferences given

**City of event:** Alcalá de Henares, Community of Madrid, Spain

**Date of event:** 11/2014

**Organising entity:** FUNDACION MADRIMASD PARA EL CONOCIMIENTO  
Enrique Alexandre Cortizo.



- 2** **Title of the work:** La música y el cerebro  
**Name of the event:** XIII Semana de la Ciencia  
**Type of event:** Conferences given  
**City of event:** Alcalá de Henares, Community of Madrid, Spain  
**Date of event:** 11/2013  
**Organising entity:** FUNDACION MADRIMASD PARA EL CONOCIMIENTO  
Enrique Alexandre Cortizo.
- 3** **Title of the work:** La música y el cerebro  
**Name of the event:** XII Semana de la Ciencia  
**Type of event:** Conferences given  
**City of event:** Alcalá de Henares, Community of Madrid, Spain  
**Date of event:** 11/2012  
**Organising entity:** FUNDACION MADRIMASD PARA EL CONOCIMIENTO  
Enrique Alexandre Cortizo.
- 4** **Title of the work:** Veo, veo. Microscopio, una historia en cuatro episodios  
**Name of the event:** La Noche de los Investigadores  
**Type of event:** Representación  
**City of event:** Madrid, Community of Madrid, Spain  
**Date of event:** 09/2012  
**Organising entity:** FUNDACION MADRIMASD PARA EL CONOCIMIENTO  
Enrique Alexandre Cortizo.
- 5** **Title of the work:** La música y el cerebro  
**Name of the event:** XI Semana de la Ciencia  
**Type of event:** Conferences given  
**City of event:** Alcalá de Henares, Community of Madrid, Spain  
**Date of event:** 11/2011  
**Organising entity:** FUNDACION MADRIMASD PARA EL CONOCIMIENTO  
Enrique Alexandre Cortizo.
- 6** **Title of the work:** La música y el cerebro  
**Name of the event:** X Semana de la Ciencia  
**City of event:** Alcalá de Henares, Community of Madrid, Spain  
**Date of event:** 11/2010  
**Organising entity:** FUNDACION MADRIMASD PARA EL CONOCIMIENTO  
Enrique Alexandre Cortizo.
- 7** **Title of the work:** La ingeniería de los sentidos  
**Name of the event:** IX Semana de la Ciencia  
**Type of event:** Conferences given  
**City of event:** Alcalá de Henares, Community of Madrid, Spain  
**Date of event:** 11/2009  
**Organising entity:** FUNDACION MADRIMASD PARA EL CONOCIMIENTO  
Enrique Alexandre Cortizo.
- 8** **Title of the work:** Las nuevas tecnologías y la audición humana  
**Name of the event:** VIII Semana de la Ciencia  
**Type of event:** Conferences given  
**City of event:** Alcalá de Henares, Community of Madrid, Spain



**Date of event:** 11/2008

**Organising entity:** FUNDACION MADRIMASD PARA EL CONOCIMIENTO  
Enrique Alexandre Cortizo.

- 9** **Title of the work:** Las personas sordas en la ciudad  
**Name of the event:** IX Feria Madrid es Ciencia  
**Type of event:** Fairs and exhibitions  
**City of event:** Madrid, Community of Madrid, Spain  
**Date of event:** 04/2008  
**Organising entity:** FUNDACION MADRIMASD PARA EL CONOCIMIENTO  
Enrique Alexandre Cortizo.

- 10** **Title of the work:** ¿Necesitamos oír lo que decimos?  
**Name of the event:** IX Feria Madrid es Ciencia  
**Type of event:** Fairs and exhibitions  
**City of event:** Madrid, Community of Madrid, Spain  
**Date of event:** 04/2008  
**Organising entity:** FUNDACION MADRIMASD PARA EL CONOCIMIENTO  
Enrique Alexandre Cortizo.

## R&D management and participation in scientific committees

### Scientific, technical and/or assessment committees

**Committee title:** AES Technical Committee on Audio Coding  
**Primary (UNESCO code):** 332501 - Broadcasting, round and television  
**Affiliation entity:** Audio Engineering Society  
**City affiliation entity:** New York, United States of America  
**Start-End date:** 04/2001 - 04/2012

### Organization of R&D activities

- 1** **Title of the activity:** Audio Engineering Society 10th Meeting  
**Type of activity:** Congreso Científico Internacional **Geographical area:** Non EU International  
**Convening entity:** Audio Engineering Society  
**Type of participation:** Comité científico  
**Start date:** 2009
- 2** **Title of the activity:** Audio Engineering Society 118th Convention  
**Type of activity:** Congreso Científico Internacional **Geographical area:** Non EU International  
**City of event:** Barcelona, Spain  
**Convening entity:** Audio Engineering Society  
**Type of participation:** Organiser  
**Start date:** 2005



## R&D management

- 1 Name of the activity:** Coordinador del programa de tutorías personalizadas del grado en Ingeniería en Sistemas de Telecomunicación  
**Type of management:** Gestión de programa de tutorías académicas  
**Entity:** Universidad de Alcalá **Type of entity:** University  
**Start date:** 01/10/2010
- 2 Name of the activity:** Coordinador de la especialidad de Tecnología del Master Universitario en Formación del Profesorado de E.S.O.  
**Type of management:** Coordinación de máster universitario  
**Entity:** Universidad de Alcalá **Type of entity:** University  
**Start date:** 01/05/2010 **Duration:** 5 years - 6 months

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

- 1 Performed tasks:** Evaluador del programa PEOPLE dentro del FP7 - Acciones CIG e IxF  
**Entity where activity was carried out:** Comisión Europea **Type of entity:** REA  
**City of entity:** Bruselas, Belgium  
**Start-End date:** 01/01/2013 - 31/12/2013
- 2 Performed tasks:** Evaluador del programa PEOPLE dentro del Horizon 2020  
**Entity where activity was carried out:** Comisión Europea **Type of entity:** REA  
**City of entity:** Bruselas, Belgium  
**Start date:** 01/01/2014
- 3 Performed tasks:** Evaluador de los premios a las mejores tesis doctorales y a los mejores PFC del COIT  
**Entity where activity was carried out:** Colegio Oficial Asociación Española Ingenieros de Telecomunicación **Type of entity:** Associations and Groups  
**Start date:** 2012
- 4 Name of the activity:** Evaluador de Proyectos de I+D  
**Performed tasks:** Evaluador de Proyectos de I+D  
**Entity where activity was carried out:** Agencia Nacional de Evaluación y Prospectiva **Type of entity:** Agencia  
**Start date:** 2010





## Other achievements

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

- 1** **Entity:** Universidad de Linköping  
**City of entity:** Universidad de Linköping, Sweden  
**Start-End date:** 15/04/2008 - 15/09/2008 **Duration:** 5 months  
**Goals of the stay:** Post-doctoral  
**Provable tasks:** Estancia en la Universidad de Linköping
- 2** **Entity:** Politecnico di Torino **Type of entity:** University  
**City of entity:** Politecnico di Torino, Italy  
**Start-End date:** 01/04/2001 - 11/04/2001  
**Goals of the stay:** Guest  
**Provable tasks:** Estancia en el Politecnico di Torino

### Obtained grants and scholarships

- 1** **Name of the grant:** Beca predoctoral para formación de doctores en grupos de investigación  
**Aims:** Pre-doctoral  
**Awarding entity:** XUNTA DE GALICIA  
**Conferral date:** 01/10/2001 **Duration:** 2 years  
**End date:** 30/09/2003  
**Entity where activity was carried out:** Universidade de Vigo  
**Faculty, institute or centre:** Escuela Técnica Superior de Ingenieros de Telecomunicación
- 2** **Name of the grant:** Beca de Tercer Ciclo  
**Aims:** Pre-doctoral  
**Awarding entity:** XUNTA DE GALICIA  
**Conferral date:** 01/10/1999 **Duration:** 2 years  
**End date:** 30/09/2001  
**Entity where activity was carried out:** Universidade de Vigo  
**Faculty, institute or centre:** Escuela Técnica Superior de Ingenieros de Telecomunicación
- 3** **Name of the grant:** Beca para la ampliación de estudios José Castillejo  
**Aims:** Post-doctoral  
**Awarding entity:** Universidad de Alcalá **Type of entity:** University  
**Conferral date:** 23/01/2008  
**Entity where activity was carried out:** Universidad de Linköping



## Scientific societies and professional associations

**Name of the society:** IEEE

**Affiliation entity:** Senior Member

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

**Start date:** 1999

**Type of entity:** Associations and Groups

## Prizes, mentions and distinctions

- 1 **Description:** Finalista de la VI Edición del Premio en Economía y Gestión de la Investigación. "Machine learning techniques for prediction problems in economy: practical applications"  
**Awarding entity:** Cátedra UAM-Accenture **Type of entity:** University  
**Conferral date:** 29/04/2015
- 2 **Description:** III concurso de ideas para la creación de empresas de base tecnológica Universidad de Alcalá. Finalistas por la propuesta: SOFT-AUDIFON: Soluciones Software para Audífonos Digitales  
**Awarding entity:** Universidad de Alcalá **Type of entity:** University  
**Conferral date:** 11/12/2008
- 3 **Description:** III Premio del Consejo Social a la Transferencia de Conocimiento Universidad-Sociedad  
**Awarding entity:** Consejo Social de la Universidad de Alcalá  
**Conferral date:** 03/10/2008

## Periods of research activity

- 1 **Nº of recognized periods:** 3  
**Certifying entity:** Comisión Nacional Evaluadora de la Actividad Investigadora  
**Date of recognition:** 03/05/2022
- 2 **Nº of recognized periods:** 2  
**Certifying entity:** Comisión Nacional Evaluadora de la Actividad Investigadora  
**Date of recognition:** 13/06/2016
- 3 **Nº of recognized periods:** 1  
**Geographical area:** National  
**Certifying entity:** Comisión Nacional Evaluadora de la Actividad Investigadora **Type of entity:** State agency  
**City certifying entity:** Spain  
**Date of recognition:** 29/06/2011



## Obtained accreditations/recognitions

- 1** **Description:** Quinquenio 2014-2019  
**Accrediting entity:** Universidad de Alcalá  
**Date of recognition:** 25/06/2020  
**Type of entity:** University
- 2** **Description:** Quinquenio 2009-2014  
**Accrediting entity:** Universidad de Alcalá  
**Nº of recognized periods:** 1  
**Date of reception:** 07/04/2015  
**Date of recognition:** 07/04/2015  
**Type of entity:** University
- 3** **Description:** Quinquenio 2004-2009  
**Accrediting entity:** Universidad de Alcalá  
**Nº of recognized periods:** 1  
**Date of reception:** 29/03/2011  
**Date of recognition:** 29/03/2011  
**Type of entity:** University