CURRÍCULUM VÍTAE NORMALIZADO

Begoña Acha Piñero

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Begoña Acha Piñero

Surname(s):	**Acha Piñero**
Name:	**Begoña**
DNI:	**28615607L**
Perfil de Dialnet:	**5517490**
ResearcherID:	**I-1816-2015**
ScopusID:	**6602917510**
ORCID:	**0000-0001-7838-5746**
Perfil de Google Académico:	**K0dolFYAAAAJ**
Date of birth:	**20/09/1973**
Gender:	**Female**
Nationality:	**Spain**
Email:	**bacha@us.es**

Current professional situation

Employing entity: Universidad de Sevilla **Type of entity:** University
Department: Teoría de la Señal y Comunicaciones
Professional category: Catedrática de Universidad
City employing entity: Sevilla, Andalusia, Spain
Start date: 21/12/2017

Education

University education

Doctorates

Doctorate programme: ROBOTICA, AUTOMATICA Y ELECTRONICA
Degree awarding entity: Universidad de Sevilla
Date of degree: 16/07/2002
Thesis title: SEGMENTACION Y CLASIFICACIÓN DE IMÁGENES EN COLOR. APLICACIÓN AL DIAGNÓSTICO DE QUEMADURAS
Thesis director: Acha Catalina, Jose Ignacio
Thesis co-director: Roa Romero, Laura M.
Obtained qualification: Sobresaliente "Cum Laude"

Teaching experience

Experience supervising doctoral thesis and/or final year projects

1 **Project title:** Análisis de imágenes dermatoscópicas para el diagnostico de lesiones pigmentadas
Type of project: Doctoral thesis
Co-director of thesis: Serrano Gotarredona, Maria Del Carmen
Entity: Universidad de Sevilla
Student: Velez Nuñez, Paulina Andrea
Obtained qualification: Sobresaliente "Cum Laude"
Date of reading: 18/11/2022

2 **Project title:** SEGMENTACIÓN DE TEJIDOS CON CONTORNOS DIFUSOS EN IMÁGENES RADIOLÓGICAS
Type of project: Doctoral thesis
Co-director of thesis: Perez Carrasco, Jose Antonio; Serrano Gotarredona, Maria Del Carmen; Echevarria Ruiz De Vargas, Carmen; Elena Perez, Maria Del Mar; Infante Cossio, Pedro Antonio
Entity: Universidad de Sevilla
Student: Suarez Mejias, Cristina
Obtained qualification: Sobresaliente "Cum Laude"
Date of reading: 26/06/2017

3 **Project title:** IMAGE ANALYSIS FOR DIAGNOSTIC SUPPORT IN BIOMEDICINE: NEUROMUSCULAR DISEASES AND PIGMENTED LESIONS
Type of project: Doctoral thesis
Co-director of thesis: Serrano Gotarredona, Maria Del Carmen
Entity: Universidad de Sevilla
Student: Saez Manzano, Aurora
Obtained qualification: Sobresaliente "Cum Laude"
Date of reading: 31/01/2014

4 **Project title:** IMAGE PROCESSING IN MEDICINE ADVANCES FOR PHENOTYPE CHARACTERIZATION, COMPUTER-ASSISTED DIAGNOSIS AND SURGICAL PLANNING
Type of project: Doctoral thesis
Co-director of thesis: Serrano Gotarredona, Maria Del Carmen
Entity: Universidad de Sevilla
Student: Sanchez Mendoza, Carlos
Obtained qualification: Sobresaliente "Cum Laude"
Date of reading: 13/05/2011

5 **Project title:** HERRAMIENTA DE SIMULACIÓN PARA CONSTRUIR Y ANALIZAR SISTEMAS COMPLEJOS Y JERÁRQUICAMENTE ESTRUCTURADOS BASADOS EN AER QUE IMPLEMENTAN PROCESADO DE LA INFORMACIÓN VISUAL
Type of project: Doctoral thesis
Co-director of thesis: Linares Barranco, Bernabe; Serrano Gotarredona, Maria Del Carmen; Serrano Gotarredona, Maria Teresa
Entity: Universidad de Sevilla
Student: Perez Carrasco, Jose Antonio
Obtained qualification: Sobresaliente "Cum Laude"
Date of reading: 11/03/2011

6 **Project title:** SEGMENTACIÓN DE IMÁGENES BASADA EN COLOR Y TEXTURA
Type of project: Doctoral thesis
Co-director of thesis: Serrano Gotarredona, Maria Del Carmen
Entity: Universidad de Sevilla
Student: Fondon Garcia, Irene
Obtained qualification: Sobresaliente "Cum Laude"
Date of reading: 05/11/2010

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:** Herramienta de priorización y análisis de lesiones de la piel mediante inteligencia artificial
Geographical area: Regional
Degree of contribution: Responsable
Name principal investigator (PI, Co-PI....): Serrano Gotarredona, María del Carmen; Acha Piñero, Begoña
Nº of researchers: 11
Funding entity or bodies:
Junta de Andalucía (Consejería de Transformación Económica, Industria, Conocimiento y Universidades)

Name of the programme: PAIDI: Proyectos I+D+i
Code according to the funding entity: PROYEXCEL_00889
Start-End date: 02/12/2022 - 31/12/2025 **Duration:** 3 years - 30 days
Total amount: 114.655 €

2 **Name of the project:** Clasificación explicada de lesiones de la piel utilizando inteligencia artificial
Geographical area: National
Degree of contribution: Responsable
Name principal investigator (PI, Co-PI....): Acha Piñero, Begoña; Serrano Gotarredona, María del Carmen
Nº of researchers: 15
Funding entity or bodies:
Ministerio de Ciencia e Innovación **Type of entity:** Body, others

Name of the programme: Plan Estatal 2021-2023 - Proyectos Investigación Orientada
Code according to the funding entity: PID2021-127871OB-I00
Start-End date: 01/09/2022 - 31/08/2025 **Duration:** 3 years
Total amount: 142.659 €

3 **Name of the project:** Inteligencia artificial para discriminación de lesiones malignas de la piel
Geographical area: Regional
Degree of contribution: Responsable
Name principal investigator (PI, Co-PI....): Acha Piñero, Begoña
Nº of researchers: 15
Funding entity or bodies:
Consejería de Economía, Conocimiento, Empresas y Universidad

Name of the programme: Proyectos I+D+i FEDER Andalucía 2014-2020
Code according to the funding entity: US-1381640
Start-End date: 01/01/2022 - 31/05/2023 **Duration:** 1 year - 5 months
Total amount: 86.410 €

4 **Name of the project:** Herramienta Software para el Análisis de Malignidad de Lesiones Pigmentadas Basada en Imágenes Visibles y de Infrarrojo Cercano (Nir)
Geographical area: National
Degree of contribution: Responsable
Name principal investigator (PI, Co-PI....): Serrano Gotarredona, María del Carmen; Acha Piñero, Begoña
Nº of researchers: 16
Funding entity or bodies:
Ministerio de Economía y Competitividad

Name of the programme: Plan Estatal 2013-2016 Retos - Proyectos I+D+i
Code according to the funding entity: DPI2016-81103-R
Start-End date: 30/12/2016 - 29/06/2021 **Duration:** 4 years - 6 months
Total amount: 68.970 €

5 **Name of the project:** Análisis de Imágenes Multiespectrales para el Diagnóstico de Lesiones Pigmentadas de la Piel
Geographical area: Regional
Degree of contribution: Responsable
Name principal investigator (PI, Co-PI....): Acha Piñero, Begoña
Nº of researchers: 13
Funding entity or bodies:
Junta de Andalucía - Consejería de Innovación, Ciencia y Empresas

Name of the programme: Proyectos de Excelencia de la Junta de Andalucía
Code according to the funding entity: P11-TIC-7727
Start-End date: 26/03/2013 - 31/03/2018 **Duration:** 5 years - 6 days

Total amount: 68.310 €

6 **Name of the project:** Imagen Médica Multimodal en Tiempo Real para Escenarios Complejos de Tratamiento (Mitra)
Geographical area: National
Degree of contribution: Responsable
Name principal investigator (PI, Co-PI....): Acha Piñero, Begoña
Nº of researchers: 11
Funding entity or bodies:
Ministerio de Ciencia e Innovación **Type of entity:** Body, others

Name of the programme: Plan Nacional del 2010
Code according to the funding entity: TEC2010-21619-C04-02
Start-End date: 01/01/2011 - 30/06/2014 **Duration:** 3 years - 6 months
Total amount: 24.442 €

7 **Name of the project:** Evaluación de la potencia diagnóstica de la estrategia de fotodetección el la retinopatía diabética con un algoritmo optimizado de detección automatizada
Geographical area: National
Degree of contribution: Responsable
Name principal investigator (PI, Co-PI....): Acha Piñero, Begoña
Nº of researchers: 4
Funding entity or bodies:
Ministerio de Sanidad y Consumo (Instituto de Salud Carlos III)

Name of the programme: OPN - Fondo Investigaciones Sanitarias
Code according to the funding entity: PI07/90373
Start-End date: 01/01/2008 - 30/12/2009 **Duration:** 1 year - 11 months - 30 days
Total amount: 8.107 €

8 **Name of the project:** Herramienta CAD para el diagnóstico y seguimiento de evolución de lesiones de la piel
Geographical area: National
Degree of contribution: Researcher
Name principal investigator (PI, Co-PI....): Serrano Gotarredona, María del Carmen
Nº of researchers: 10
Funding entity or bodies:
Ministerio de Sanidad y Consumo (Instituto de Salud Carlos III)

Name of the programme: OPN - Fondo Investigaciones Sanitarias
Code according to the funding entity: PI052028
Start-End date: 23/12/2005 - 23/12/2008 **Duration:** 3 years - 1 day
Total amount: 66.997 €

9 **Name of the project:** Herramienta de ayuda al diagnóstico para la atención primaria de enfermos quemados
Geographical area: National
Degree of contribution: Researcher
Name principal investigator (PI, Co-PI....): Serrano Gotarredona, María del Carmen
Nº of researchers: 5
Funding entity or bodies:
Ministerio de Ciencia y Tecnología

Name of the programme: Plan Nacional del 2002
Code according to the funding entity: TIC2002-01401
Start-End date: 01/12/2002 - 01/12/2005 **Duration:** 3 years - 1 day
Total amount: 54.280 €

10 **Name of the project:** CVAM: Centro Virtual de Asistencia a Mayores
Geographical area: National
Degree of contribution: Researcher
Name principal investigator (PI, Co-PI....): Acha Catalina, José Ignacio
Nº of researchers: 6
Funding entity or bodies:
Ministerio de Sanidad y Consumo (Instituto de Salud Carlos III)

Name of the programme: OPN - Fondo Investigaciones Sanitarias
Code according to the funding entity: FIS-01/0072-02
Start-End date: 17/07/2001 - 31/12/2003 **Duration:** 2 years - 5 months - 15 days
Total amount: 32.725,11 €

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

1 **Name of the project:** DESARROLLO DE NUEVOS MARCADORES FIDUCIALES INTELIGENTES PARA LA PLANIFICACIÓN DE TRATAMIENTOS RADIOTERÁPICOS DEL CÁNCER DE PRÓSTATA
Degree of contribution: Responsable
Name principal investigator (PI, Co-PI....): Acha Piñero, Begoña
Nº of researchers: 1
Funding entity or bodies:
EQA Certificados I+D+I

Name of the programme: Contrato 68/83
Code according to the funding entity: ES-1863/29/2018
Start date: 01/11/2018 **Duration:** 1 month - 1 day
Total amount: 750 €

2 **Name of the project:** Sistema de Análisis de imágenes de Quemaduras (BAI)
Degree of contribution: Responsable
Name principal investigator (PI, Co-PI....): Acha Piñero, Begoña
Nº of researchers: 7
Funding entity or bodies:
FISEVI

Name of the programme: Contrato 68/83
Code according to the funding entity: PI-1597/29/2016
Start date: 25/02/2016 **Duration:** 9 months - 1 day
Total amount: 5.000 €

3 **Name of the project:** Segmentación de músculos, piel y hueso en imágenes TAC
Degree of contribution: Researcher
Name principal investigator (PI, Co-PI....): Serrano Gotarredona, María del Carmen
Nº of researchers: 7
Funding entity or bodies:
IKIRIA KNOWLEDGE S.L.

Name of the programme: Contrato 68/83
Code according to the funding entity: PI-1209/2013
Start date: 16/12/2013 **Duration:** 8 months - 1 day
Total amount: 32.331 €

4 **Name of the project:** Cálculo volumétrico y comparación 3D
Degree of contribution: Responsable
Name principal investigator (PI, Co-PI....): Acha Piñero, Begoña
Nº of researchers: 6
Funding entity or bodies:
Fundación Pública Andaluza para la Gestión de la Investigación en Salud de Sevilla

Name of the programme: Contrato 68/83
Code according to the funding entity: PI-0086/2011
Start date: 20/12/2011 **Duration:** 1 year - 1 day
Total amount: 3.800 €

5 **Name of the project:** Segmentación de órganos abdominales en imágenes TAC
Degree of contribution: Researcher
Name principal investigator (PI, Co-PI....): Serrano Gotarredona, María del Carmen
Nº of researchers: 6
Funding entity or bodies:
Fundación Pública Andaluza para la Gestión de la Investigación en Salud de Sevilla

Name of the programme: Contrato 68/83
Code according to the funding entity: PI-0887/2011
Start date: 20/12/2011 **Duration:** 1 year - 1 day
Total amount: 11.120 €

6 **Name of the project:** Planificación quirúrgica aplicada a la cirugía de aloingertos óseos masivos, prótesis e implantes, mediante técnicas avanzadas de imagen, simulación de tejidos y realidad virtual
Degree of contribution: Researcher
Name principal investigator (PI, Co-PI....): Serrano Gotarredona, María del Carmen
Nº of researchers: 6
Funding entity or bodies:
Fundación Progreso y Salud

Name of the programme: Contrato 68/83
Code according to the funding entity: PI-0669/2010
Start date: 01/10/2010 **Duration:** 3 months
Total amount: 30.000 €

7 **Name of the project:** CENIT MIND- Abordaje Multidisciplinar de la Enfermedad de Alzheimer
Degree of contribution: Responsable
Name principal investigator (PI, Co-PI....): Acha Piñero, Begoña
Nº of researchers: 6
Funding entity or bodies:
Bilbomatica, S.A.

Name of the programme: Contrato 68/83
Code according to the funding entity: PI-0691/2009
Start date: 09/01/2009 **Duration:** 3 years - 1 day
Total amount: 117.750 €

8 **Name of the project:** Gestión del conocimiento integrada en un entorno de realidad virtual
Degree of contribution: Responsable
Name principal investigator (PI, Co-PI....): Acha Piñero, Begoña
Nº of researchers: 7
Funding entity or bodies:
Hospital Universitario Virgen del Rocío (Fundación Reina Mercedes)

Name of the programme: Contrato 68/83
Code according to the funding entity: PI-0687/2009
Start date: 01/07/2008 **Duration:** 6 months
Total amount: 30.000 €

9 **Name of the project:** DERMATO
Degree of contribution: Researcher
Name principal investigator (PI, Co-PI....): Serrano Gotarredona, María del Carmen
Nº of researchers: 6
Funding entity or bodies:
ALMA SYSTEMS S.L.

Name of the programme: Contrato 68/83
Code according to the funding entity: PI-0563/2009
Start date: 15/01/2008 **Duration:** 1 year - 4 months - 17 days
Total amount: 25.200 €

10 **Name of the project:** Gestión del conocimiento integrada en un entorno de realidad virtual
Degree of contribution: Responsable
Name principal investigator (PI, Co-PI....): Acha Piñero, Begoña
Nº of researchers: 6
Funding entity or bodies:
Hospital Universitario Virgen del Rocío (Fundación Reina Mercedes)

Name of the programme: Contrato 68/83
Code according to the funding entity: PI-0639/2007
Start date: 07/11/2007 **Duration:** 1 month - 25 days
Total amount: 82.000 €

11 **Name of the project:** Desarrollo de un servidor seguro con almacenamiento cifrado y capacidades de comunicación cifrada
Degree of contribution: Responsable
Name principal investigator (PI, Co-PI....): Acha Piñero, Begoña
Nº of researchers: 3
Funding entity or bodies:
EPICOM

Name of the programme: Contrato 68/83
Code according to the funding entity: PI-0590/2007
Start date: 01/04/2007 **Duration:** 2 years - 1 day
Total amount: 17.600 €

12 **Name of the project:** Segmentación tridimensional de imágenes TAC para planificación quirurgica. VirSSPA
Degree of contribution: Responsable

Name principal investigator (PI, Co-PI....): Acha Piñero, Begoña
Nº of researchers: 3
Funding entity or bodies:
Hospital Universitario Virgen del Rocío (Fundación Reina Mercedes)

Name of the programme: Contrato 68/83
Code according to the funding entity: PI-0462/2006
Start date: 01/11/2006 **Duration:** 2 months
Total amount: 6.000 €

Results

Industrial and intellectual property

Title registered industrial property: Método para obtener información útil para el diagnóstico de enfermedades neuromusculares
Description of qualities: Método para obtener información útil para el diagnóstico de enfermedades neuromusculares.Procedimiento para obtener, a partir de la biopsia de un paciente, nuevos parámetros que permiten diagnosticar de manera objetiva diferentes enfermedades neuromusculares y su grado de afectación al paciente, que comprende:- realizar una tinción de la biopsia para resaltar las fibras musculares tipo I, las fibras musculares tipo II y el endomisio;- obtener una imagen de la biopsia tras la tinción;- segmentar la imagen para identificar los contornos de las fibras musculares;- formar una red donde las fibras musculares constituyen nodos y los contactos entre fibras musculares constituyen las uniones entre los nodos;- formar un vector característico de la biopsia cuyos elementos se eligen entre parámetros geométricos de las fibras y parámetros de la red construida; y- comparar biopsias control y afectas por medio de ACP utilizando en cada caso el vector característico seleccionado.
Type of industrial property: Patent of invention
Inventors/authors/obtainers: Escudero Cuadrado, Luis; Montero Sánchez, Adoración; Paradas López, Carmen; Rivas Infante, Eloy; Pascual Bravo, Alberto; Sáez Manzano, Aurora; Serrano Gotarredona, Carmen; Acha Piñero, Begoña
Entity holder of rights: UNIVERSIDAD DE SEVILLA;Consejo Superior de Investigaciones Cientificas (CSIC);SERVICIO ANDALUZ DE SALUD
Nº of application: P201131840
Date of register: 15/11/2011
Conferral date: 15/04/2014
Nº of patent: ES2408137B1
PCT patent: Yes

Scientific and technological activities

Scientific production

Publications, scientific and technical documents

1 Vélez, Paulina; Miranda, Manuel; Serrano, Carmen; Acha, Begoña. Does a previous segmentation improve the automatic detection of basal cell carcinoma using deep neural networks?. APPLIED SCIENCES-BASEL. 12 - 4, MDPI, 2022. Available on-line at: <https://doi.org/10.3390/app12042092>. ISSN 2076-3417

DOI: 10.3390/app12042092
Handle: 11441/131199
Código WOS: WOS:000770898500001
Código Scopus: 85125091154
Type of production: Scientific paper
Format: Journal
Position of signature: 4
Total no. authors: 4

Impact source: ISI
Category: Science Edition - CHEMISTRY, MULTIDISCIPLINARY
Impact index in year of publication: 2.838
Journal in the top 25%: No
Position of publication: 100
No. of journals in the cat.: 179

Impact source: ISI
Category: Science Edition - ENGINEERING, MULTIDISCIPLINARY
Impact index in year of publication: 2.838
Journal in the top 25%: No
Position of publication: 39
No. of journals in the cat.: 92

Impact source: ISI
Category: Science Edition - MATERIALS SCIENCE, MULTIDISCIPLINARY
Impact index in year of publication: 2.838
Journal in the top 25%: No
Position of publication: 218
No. of journals in the cat.: 345

Impact source: ISI
Category: Science Edition - PHYSICS, APPLIED
Impact index in year of publication: 2.838
Journal in the top 25%: No
Position of publication: 76
No. of journals in the cat.: 161

Impact source: SCOPUS
Category: Computer Science Applications
Impact index in year of publication: 0.492
Journal in the top 25%: No
Position of publication: 388
No. of journals in the cat.: 763

Impact source: SCOPUS
Category: Engineering (miscellaneous)
Impact index in year of publication: 0.492
Journal in the top 25%: No
Position of publication: 139
No. of journals in the cat.: 421

Impact source: SCOPUS
Category: Fluid Flow and Transfer Processes
Impact index in year of publication: 0.492
Journal in the top 25%: No
Position of publication: 33
No. of journals in the cat.: 86

Impact source: SCOPUS
Category: Instrumentation
Impact index in year of publication: 0.492
Journal in the top 25%: No
Position of publication: 57
No. of journals in the cat.: 136

Impact source: SCOPUS
Impact index in year of publication: 0.492
Position of publication: 255
Category: Materials Science (miscellaneous)
Journal in the top 25%: No
No. of journals in the cat.: 594

Impact source: SCOPUS
Impact index in year of publication: 0.492
Position of publication: 35
Category: Process Chemistry and Technology
Journal in the top 25%: No
No. of journals in the cat.: 69

Source of citations: SCOPUS
Citations: 3

Source of citations: WOS
Citations: 3

2 Serrano, Carmen; Lazo, Manuel; Serrano, Amalia; Toledo-Pastrana, Tomás; Barros-Tornay, Rubén; Acha, Begoña. Clinically inspired skin lesion classification through the detection of dermoscopic criteria for basal cell carcinoma. Journal of Imaging. 8 - 7, 2022. Available on-line at: <https://doi.org/10.3390/jimaging8070197>. ISSN 2313-433X
DOI: 10.3390/jimaging8070197
Handle: 11441/147044
Código WOS: WOS:000831428100001
Código Scopus: 85136127739
Type of production: Scientific paper
Format: Journal
Position of signature: 6
Total no. authors: 6

Impact source: SCOPUS
Impact index in year of publication: 0.595
Position of publication: 33
Category: Computer Graphics and Computer-Aided Design
Journal in the top 25%: No
No. of journals in the cat.: 96

Impact source: SCOPUS
Impact index in year of publication: 0.595
Position of publication: 35
Category: Computer Vision and Pattern Recognition
Journal in the top 25%: No
No. of journals in the cat.: 93

Impact source: SCOPUS
Impact index in year of publication: 0.595
Position of publication: 243
Category: Electrical and Electronic Engineering
Journal in the top 25%: No
No. of journals in the cat.: 696

Impact source: SCOPUS
Impact index in year of publication: 0.595
Position of publication: 125
Category: Radiology, Nuclear Medicine and Imaging
Journal in the top 25%: No
No. of journals in the cat.: 323

Source of citations: SCOPUS
Citations: 2

Source of citations: WOS
Citations: 2

3 Leñero-Bardallo, J. A.; Acha, B.; Serrano, C.; Pérez-Carrasco, J. A.; Ortiz-Álvarez, J.; Bernabéu-Wittel, J.. Thermography as a method for bedside monitoring of infantile hemangiomas. CANCERS. 14 - 21, MDPI, 2022. Available on-line at: <https://doi.org/10.3390/cancers14215392>. ISSN 2072-6694
DOI: 10.3390/cancers14215392
Handle: 11441/140999
Código WOS: WOS:000883375000001
Código Scopus: 85141880903
Type of production: Scientific paper
Format: Journal
Position of signature: 2
Total no. authors: 6

Impact source: ISI
Impact index in year of publication: 6.575
Position of publication: 60
Category: Science Edition - ONCOLOGY
Journal in the top 25%: Yes
No. of journals in the cat.: 245

Impact source: SCOPUS
Impact index in year of publication: 1.312
Position of publication: 71
Category: Cancer Research
Journal in the top 25%: No
No. of journals in the cat.: 220

Impact source: SCOPUS
Impact index in year of publication: 1.312
Position of publication: 81
Category: Oncology
Journal in the top 25%: Yes
No. of journals in the cat.: 375

Source of citations: SCOPUS
Citations: 0

Source of citations: WOS
Citations: 0

4 Leñero-Bardallo, J. A.; Serrano, C.; Acha, B.; Pérez-Carrasco, J. A.; Bernabeu-Wittel, J.. Thermography for the differential diagnosis of vascular malformations. CLINICAL AND EXPERIMENTAL DERMATOLOGY. 46 - 2, pp. 314 - 318. WILEY-BLACKWELL, 2021. Available on-line at: <https://doi.org/10.1111/ced.14346>. ISSN 0307-6938, ISSN 1365-2230
DOI: 10.1111/ced.14346
PMID: 32572993
Código WOS: WOS:000562423200001
Código Scopus: 85089996967
Type of production: Scientific paper
Format: Journal
Position of signature: 3
Total no. authors: 5

Impact source: ISI
Impact index in year of publication: 4.481
Position of publication: 16
Category: Science Edition - DERMATOLOGY
Journal in the top 25%: Yes
No. of journals in the cat.: 69

Impact source: SCOPUS
Impact index in year of publication: 0.487
Position of publication: 64
Category: Dermatology
Journal in the top 25%: No
No. of journals in the cat.: 139

Source of citations: SCOPUS
Citations: 3

Source of citations: WOS
Citations: 2

5 Sáez, Aurora; Acha, Begoña; Serrano, Amalia; Serrano, Carmen. Statistical Detection of Colors in Dermoscopic Images With a Texton-Based Estimation of Probabilities. IEEE JOURNAL OF BIOMEDICAL AND HEALTH INFORMATICS. 23 - 2, pp. 560 - 569. IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC, 2019. Available on-line at: <https://doi.org/10.1109/JBHI.2018.2823499>. ISSN 2168-2194, ISSN 2168-2208
DOI: 10.1109/JBHI.2018.2823499
PMID: 29993674
Código WOS: WOS:000460666400012
Código Scopus: 85045199451
Type of production: Scientific paper
Format: Journal
Position of signature: 2
Total no. authors: 4
Corresponding author: Yes

Impact source: ISI
Impact index in year of publication: 5.223
Position of publication: 15
Category: Science Edition - COMPUTER SCIENCE, INFORMATION SYSTEMS
Journal in the top 25%: Yes
No. of journals in the cat.: 156

Impact source: ISI
Category: Science Edition - COMPUTER SCIENCE, INTERDISCIPLINARY APPLICATIONS
Impact index in year of publication: 5.223
Journal in the top 25%: Yes
Position of publication: 12
No. of journals in the cat.: 109

Impact source: ISI
Category: Science Edition - MATHEMATICAL & COMPUTATIONAL BIOLOGY
Impact index in year of publication: 5.223
Journal in the top 25%: Yes
Position of publication: 5
No. of journals in the cat.: 59

Impact source: ISI
Category: Science Edition - MEDICAL INFORMATICS
Impact index in year of publication: 5.223
Journal in the top 25%: Yes
Position of publication: 1
No. of journals in the cat.: 27

Impact source: SCOPUS
Category: Biotechnology
Impact index in year of publication: 1.306
Journal in the top 25%: Yes
Position of publication: 47
No. of journals in the cat.: 290

Impact source: SCOPUS
Category: Computer Science Applications
Impact index in year of publication: 1.306
Journal in the top 25%: Yes
Position of publication: 89
No. of journals in the cat.: 615

Impact source: SCOPUS
Category: Electrical and Electronic Engineering
Impact index in year of publication: 1.306
Journal in the top 25%: Yes
Position of publication: 78
No. of journals in the cat.: 675

Impact source: SCOPUS
Category: Health Information Management
Impact index in year of publication: 1.306
Journal in the top 25%: Yes
Position of publication: 6
No. of journals in the cat.: 34

Source of citations: SCOPUS
Citations: 11

Source of citations: WOS
Citations: 8

6 Pérez-Carrasco, José Antonio; Acha, Begoña; Suárez-Mejías, Cristina; López-Guerra, Jose Luis; Serrano, Carmen. Joint segmentation of bones and muscles using an intensity and histogram-based energy minimization approach. COMPUTER METHODS AND PROGRAMS IN BIOMEDICINE. 156, pp. 85 - 95. ELSEVIER IRELAND LTD, 2018. Available on-line at: <https://doi.org/10.1016/j.cmpb.2017.12.027>. ISSN 0169-2607, ISSN 1872-7565
DOI: 10.1016/j.cmpb.2017.12.027
PMID: 29428079
Código WOS: WOS:000424764800009
Código Scopus: 85039723960
Type of production: Scientific paper
Format: Journal
Position of signature: 2
Total no. authors: 5

Impact source: ISI
Category: Science Edition - COMPUTER SCIENCE, INTERDISCIPLINARY APPLICATIONS
Impact index in year of publication: 3.424
Journal in the top 25%: Yes
Position of publication: 25
No. of journals in the cat.: 106

Impact source: ISI
Category: Science Edition - COMPUTER SCIENCE, THEORY & METHODS
Impact index in year of publication: 3.424
Journal in the top 25%: Yes
Position of publication: 15
No. of journals in the cat.: 104

Impact source: ISI
Category: Science Edition - ENGINEERING, BIOMEDICAL
Impact index in year of publication: 3.424
Journal in the top 25%: No
Position of publication: 22
No. of journals in the cat.: 80

Impact source: ISI
Category: Science Edition - MEDICAL INFORMATICS
Impact index in year of publication: 3.424
Journal in the top 25%: Yes
Position of publication: 6
No. of journals in the cat.: 26

Impact source: SCOPUS
Category: Computer Science Applications
Impact index in year of publication: 0.753
Journal in the top 25%: No
Position of publication: 153
No. of journals in the cat.: 565

Impact source: SCOPUS
Category: Health Informatics
Impact index in year of publication: 0.753
Journal in the top 25%: No
Position of publication: 20
No. of journals in the cat.: 66

Impact source: SCOPUS
Category: Software
Impact index in year of publication: 0.753
Journal in the top 25%: Yes
Position of publication: 65
No. of journals in the cat.: 336

Source of citations: SCOPUS
Citations: 12

Source of citations: WOS
Citations: 11

7 Suárez-Mejías, Cristina; Pérez-Carrasco, José A.; Serrano, Carmen; López-Guerra, José L.; Gómez-Cía, Tomás; Parra-Calderón, Carlos L.; Acha, Begoña. Validation of a method for retroperitoneal tumor segmentation. International journal of computer assisted radiology and surgery. 12 - 12, pp. 2055 - 2067. SPRINGER, 2017. Available on-line at: <https://doi.org/10.1007/s11548-017-1530-8>. ISSN 1861-6410, ISSN 1861-6429
DOI: 10.1007/s11548-017-1530-8
PMID: 28188486
Código WOS: WOS:000416265000004
Código Scopus: 85012124603
Type of production: Scientific paper
Format: Journal
Position of signature: 7
Total no. authors: 7

Impact source: ISI
Category: Science Edition - ENGINEERING, BIOMEDICAL
Impact index in year of publication: 1.961
Journal in the top 25%: No
Position of publication: 42
No. of journals in the cat.: 78

Impact source: ISI
Category: Science Edition - RADIOLOGY, NUCLEAR MEDICINE & MEDICAL IMAGING
Impact index in year of publication: 1.961
Journal in the top 25%: No
Position of publication: 68
No. of journals in the cat.: 129

Impact source: ISI
Category: Science Edition - SURGERY
Impact index in year of publication: 1.961
Journal in the top 25%: No
Position of publication: 89
No. of journals in the cat.: 200

Impact source: SCOPUS
Category: Biomedical Engineering
Impact index in year of publication: 0.614
Journal in the top 25%: No
Position of publication: 78
No. of journals in the cat.: 210

Impact source: SCOPUS

Category: Computer Graphics and Computer-Aided Design
Impact index in year of publication: 0.614
Journal in the top 25%: Yes
Position of publication: 17
No. of journals in the cat.: 65

Impact source: SCOPUS
Category: Computer Science Applications
Impact index in year of publication: 0.614
Journal in the top 25%: No
Position of publication: 183
No. of journals in the cat.: 539

Impact source: SCOPUS
Category: Computer Vision and Pattern Recognition
Impact index in year of publication: 0.614
Journal in the top 25%: Yes
Position of publication: 17
No. of journals in the cat.: 66

Impact source: SCOPUS
Category: Health Informatics
Impact index in year of publication: 0.614
Journal in the top 25%: No
Position of publication: 28
No. of journals in the cat.: 64

Impact source: SCOPUS
Category: Medicine (miscellaneous)
Impact index in year of publication: 0.614
Journal in the top 25%: No
Position of publication: 1.097
No. of journals in the cat.: 2.765

Impact source: SCOPUS
Category: Radiology, Nuclear Medicine and Imaging
Impact index in year of publication: 0.614
Journal in the top 25%: No
Position of publication: 118
No. of journals in the cat.: 293

Impact source: SCOPUS
Category: Surgery
Impact index in year of publication: 0.614
Journal in the top 25%: No
Position of publication: 151
No. of journals in the cat.: 406

Source of citations: SCOPUS
Citations: 0

Source of citations: WOS
Citations: 0

8 Suárez-Mejías, Cristina; Pérez-Carrasco, Jose Antonio; Serrano, Carmen; López-Guerra, Jose Luis; Parra-Calderón, Carlos; Gómez-Cía, Tomás; Acha, Begoña. Three-dimensional segmentation of retroperitoneal masses using continuous convex relaxation and accumulated gradient distance for radiotherapy planning. MEDICAL & BIOLOGICAL ENGINEERING & COMPUTING. 55 - 1, pp. 1 - 15. SPRINGER, 2017. Available on-line at: <https://doi.org/10.1007/s11517-016-1505-x>. ISSN 0140-0118, ISSN 1741-0444
DOI: 10.1007/s11517-016-1505-x
Código WOS: WOS:000393593600001
Código Scopus: 84964329687
Type of production: Scientific paper
Format: Journal
Position of signature: 7
Total no. authors: 7

Impact source: ISI
Category: Science Edition - COMPUTER SCIENCE, INTERDISCIPLINARY APPLICATIONS
Impact index in year of publication: 1.971
Journal in the top 25%: No
Position of publication: 52
No. of journals in the cat.: 105

Impact source: ISI
Category: Science Edition - ENGINEERING, BIOMEDICAL
Impact index in year of publication: 1.971
Journal in the top 25%: No
Position of publication: 41
No. of journals in the cat.: 78

Impact source: ISI

Impact index in year of publication: 1.971
Position of publication: 19
Category: Science Edition - MATHEMATICAL & COMPUTATIONAL BIOLOGY
Journal in the top 25%: No
No. of journals in the cat.: 59

Impact source: ISI
Impact index in year of publication: 1.971
Position of publication: 14
Category: Science Edition - MEDICAL INFORMATICS
Journal in the top 25%: No
No. of journals in the cat.: 25

Impact source: SCOPUS
Impact index in year of publication: 0.661
Position of publication: 72
Category: Biomedical Engineering
Journal in the top 25%: No
No. of journals in the cat.: 210

Impact source: SCOPUS
Impact index in year of publication: 0.661
Position of publication: 169
Category: Computer Science Applications
Journal in the top 25%: No
No. of journals in the cat.: 539

Source of citations: SCOPUS
Citations: 3

Source of citations: WOS
Citations: 2

9 Pérez-Carrasco, J. A.; Acha, B.; Gómez-Cia, T.; Lopez-Garcia, R. A.; Delgado, Carlos; Serrano, C.. 3D surgical planning in patients affected by lipodystrophy. COMPUTERIZED MEDICAL IMAGING AND GRAPHICS. 40, pp. 128 - 137. PERGAMON-ELSEVIER SCIENCE LTD, 2015. Available on-line at: <https://doi.org/10.1016/j.compmedimag.2014.12.007>. ISSN 0895-6111, ISSN 1879-0771

DOI: 10.1016/j.compmedimag.2014.12.007
PMID: 25618746
Código WOS: WOS:000350928500013
Código Scopus: 84923116122
Type of production: Scientific paper
Format: Journal
Position of signature: 2
Total no. authors: 6

Impact source: ISI
Impact index in year of publication: 1.385
Position of publication: 51
Category: Science Edition - ENGINEERING, BIOMEDICAL
Journal in the top 25%: No
No. of journals in the cat.: 76

Impact source: ISI
Impact index in year of publication: 1.385
Position of publication: 93
Category: Science Edition - RADIOLOGY, NUCLEAR MEDICINE & MEDICAL IMAGING
Journal in the top 25%: No
No. of journals in the cat.: 124

Impact source: SCOPUS
Impact index in year of publication: 0.566
Position of publication: 16
Category: Computer Graphics and Computer-Aided Design
Journal in the top 25%: Yes
No. of journals in the cat.: 65

Impact source: SCOPUS
Impact index in year of publication: 0.566
Position of publication: 20
Category: Computer Vision and Pattern Recognition
Journal in the top 25%: No
No. of journals in the cat.: 63

Impact source: SCOPUS
Impact index in year of publication: 0.566
Position of publication: 26
Category: Health Informatics
Journal in the top 25%: No
No. of journals in the cat.: 62

Impact source: SCOPUS
Impact index in year of publication: 0.566
Position of publication: 26
Category: Radiological and Ultrasound Technology
Journal in the top 25%: No
No. of journals in the cat.: 51

Impact source: SCOPUS
Impact index in year of publication: 0.566
Position of publication: 126
Category: Radiology, Nuclear Medicine and Imaging
Journal in the top 25%: No
No. of journals in the cat.: 290

Source of citations: SCOPUS
Citations: 2

Source of citations: WOS
Citations: 2

10 Serrano, Carmen; Boloix-Tortosa, Rafael; Gómez-Cía, Tomás; Acha, Begoña. Features identification for automatic burn classification. BURNS. 41 - 8, pp. 1883 - 1890. ELSEVIER SCI LTD, 2015. Available on-line at: <https://doi.org/10.1016/j.burns.2015.05.011>. ISSN 0305-4179, ISSN 1879-1409
DOI: 10.1016/j.burns.2015.05.011
PMID: 26188898
Código WOS: WOS:000367127700033
Código Scopus: 84955597445
Type of production: Scientific paper
Format: Journal
Position of signature: 4
Total no. authors: 4
Corresponding author: Yes

Impact source: ISI
Impact index in year of publication: 1.904
Position of publication: 25
Category: Science Edition - CRITICAL CARE MEDICINE
Journal in the top 25%: No
No. of journals in the cat.: 33

Impact source: ISI
Impact index in year of publication: 1.904
Position of publication: 23
Category: Science Edition - DERMATOLOGY
Journal in the top 25%: No
No. of journals in the cat.: 61

Impact source: ISI
Impact index in year of publication: 1.904
Position of publication: 76
Category: Science Edition - SURGERY
Journal in the top 25%: No
No. of journals in the cat.: 200

Impact source: SCOPUS
Impact index in year of publication: 0.971
Position of publication: 18
Category: Critical Care and Intensive Care Medicine
Journal in the top 25%: Yes
No. of journals in the cat.: 86

Impact source: SCOPUS
Impact index in year of publication: 0.971
Position of publication: 9
Category: Emergency Medicine
Journal in the top 25%: Yes
No. of journals in the cat.: 75

Impact source: SCOPUS
Impact index in year of publication: 0.971
Position of publication: 609
Category: Medicine (miscellaneous)
Journal in the top 25%: Yes
No. of journals in the cat.: 2.816

Impact source: SCOPUS
Impact index in year of publication: 0.971
Position of publication: 79
Category: Surgery
Journal in the top 25%: Yes
No. of journals in the cat.: 395

Source of citations: SCOPUS
Citations: 30

Source of citations: WOS
Citations: 27

11 Saez, A; Acha, B; Serrano, C. Pattern Analysis in Dermoscopic Images. COMPUTER VISION TECHNIQUES FOR THE DIAGNOSIS OF SKIN CANCER. pp. 23 - 48. SPRINGER, 2014. Available on-line at: <https://doi.org/10.1007/978-3-642-39608-3_2>. ISSN 2196-8861, ISSN 2196-887X, ISBN 978-3-642-39607-6
DOI: 10.1007/978-3-642-39608-3_2
Código WOS: WOS:000332423300003
Collection: Series in BioEngineering
Type of production: Scientific paper
Format: Book
Position of signature: 2
Total no. authors: 3
Source of citations: WOS
Citations: 27

12 Saez, Aurora; Serrano, Carmen; Acha, Begona. Model-Based Classification Methods of Global Patterns in Dermoscopic Images. IEEE TRANSACTIONS ON MEDICAL IMAGING. 33 - 5, pp. 1137 - 1147. IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC, 2014. Available on-line at: <https://doi.org/10.1109/TMI.2014.2305769>. ISSN 0278-0062, ISSN 1558-254X
DOI: 10.1109/TMI.2014.2305769
PMID: 24770918
Código WOS: WOS:000335379500012
Código Scopus: 84899751434
Type of production: Scientific paper
Format: Journal
Position of signature: 3
Total no. authors: 3

Impact source: ISI
Category: Science Edition - COMPUTER SCIENCE, INTERDISCIPLINARY APPLICATIONS
Impact index in year of publication: 3.390
Journal in the top 25%: Yes
Position of publication: 10
No. of journals in the cat.: 102

Impact source: ISI
Category: Science Edition - ENGINEERING, BIOMEDICAL
Impact index in year of publication: 3.390
Journal in the top 25%: Yes
Position of publication: 12
No. of journals in the cat.: 76

Impact source: ISI
Category: Science Edition - ENGINEERING, ELECTRICAL & ELECTRONIC
Impact index in year of publication: 3.390
Journal in the top 25%: Yes
Position of publication: 18
No. of journals in the cat.: 249

Impact source: ISI
Category: Science Edition - IMAGING SCIENCE & PHOTOGRAPHIC TECHNOLOGY
Impact index in year of publication: 3.390
Journal in the top 25%: Yes
Position of publication: 3
No. of journals in the cat.: 24

Impact source: ISI
Category: Science Edition - RADIOLOGY, NUCLEAR MEDICINE & MEDICAL IMAGING
Impact index in year of publication: 3.390
Journal in the top 25%: Yes
Position of publication: 21
No. of journals in the cat.: 125

Impact source: SCOPUS
Category: Computer Science Applications
Impact index in year of publication: 1.604
Journal in the top 25%: Yes
Position of publication: 40
No. of journals in the cat.: 515

Impact source: SCOPUS
Category: Electrical and Electronic Engineering
Impact index in year of publication: 1.604
Journal in the top 25%: Yes
Position of publication: 38
No. of journals in the cat.: 629

Impact source: SCOPUS
Impact index in year of publication: 1.604
Position of publication: 6
Category: Radiological and Ultrasound Technology
Journal in the top 25%: Yes
No. of journals in the cat.: 49

Impact source: SCOPUS
Impact index in year of publication: 1.604
Position of publication: 23
Category: Software
Journal in the top 25%: Yes
No. of journals in the cat.: 328

Source of citations: SCOPUS
Citations: 66

Source of citations: WOS
Citations: 50

13 Sáez, Aurora; Serrano, Carmen; Acha, Begoña. Normalized Cut optimization based on color perception findings. A comparative study. MACHINE VISION AND APPLICATIONS. 25 - 7, pp. 1813 - 1823. SPRINGER, 2014. Available on-line at: <https://doi.org/10.1007/s00138-014-0631-4>. ISSN 0932-8092, ISSN 1432-1769
DOI: 10.1007/s00138-014-0631-4
Código WOS: WOS:000342435800015
Código Scopus: 84920249339
Type of production: Scientific paper
Format: Journal
Position of signature: 3
Total no. authors: 3

Impact source: ISI
Impact index in year of publication: 1.351
Position of publication: 64
Category: Science Edition - COMPUTER SCIENCE, ARTIFICIAL INTELLIGENCE
Journal in the top 25%: No
No. of journals in the cat.: 123

Impact source: ISI
Impact index in year of publication: 1.351
Position of publication: 11
Category: Science Edition - COMPUTER SCIENCE, CYBERNETICS
Journal in the top 25%: No
No. of journals in the cat.: 24

Impact source: ISI
Impact index in year of publication: 1.351
Position of publication: 113
Category: Science Edition - ENGINEERING, ELECTRICAL & ELECTRONIC
Journal in the top 25%: No
No. of journals in the cat.: 249

Impact source: SCOPUS
Impact index in year of publication: 0.466
Position of publication: 240
Category: Computer Science Applications
Journal in the top 25%: No
No. of journals in the cat.: 515

Impact source: SCOPUS
Impact index in year of publication: 0.466
Position of publication: 23
Category: Computer Vision and Pattern Recognition
Journal in the top 25%: No
No. of journals in the cat.: 63

Impact source: SCOPUS
Impact index in year of publication: 0.466
Position of publication: 45
Category: Hardware and Architecture
Journal in the top 25%: No
No. of journals in the cat.: 126

Impact source: SCOPUS
Impact index in year of publication: 0.466
Position of publication: 151
Category: Software
Journal in the top 25%: No
No. of journals in the cat.: 328

Source of citations: SCOPUS
Citations: 5

Source of citations: WOS
Citations: 5

14 Sáez, Aurora; Mendoza, Carlos S.; Acha, Begoña; Serrano, Carmen. Development and evaluation of perceptually adapted colour gradients. IET IMAGE PROCESSING. 7 - 4, pp. 355 - 363. INST ENGINEERING TECHNOLOGY-IET, 2013. Available on-line at: <https://doi.org/10.1049/iet-ipr.2012.0085>. ISSN 1751-9659, ISSN 1751-9667

DOI: 10.1049/iet-ipr.2012.0085
Handle: 11441/128382
Código WOS: WOS:000321751400008
Código Scopus: 84880658455
Type of production: Scientific paper
Format: Journal
Position of signature: 3
Total no. authors: 4

Impact source: ISI
Category: Science Edition - ENGINEERING, ELECTRICAL & ELECTRONIC
Impact index in year of publication: 0.676
Journal in the top 25%: No
Position of publication: 180
No. of journals in the cat.: 248

Impact source: SCOPUS
Category: Computer Vision and Pattern Recognition
Impact index in year of publication: 0.288
Journal in the top 25%: No
Position of publication: 34
No. of journals in the cat.: 60

Impact source: SCOPUS
Category: Electrical and Electronic Engineering
Impact index in year of publication: 0.288
Journal in the top 25%: No
Position of publication: 299
No. of journals in the cat.: 622

Impact source: SCOPUS
Category: Signal Processing
Impact index in year of publication: 0.288
Journal in the top 25%: No
Position of publication: 45
No. of journals in the cat.: 77

Impact source: SCOPUS
Category: Software
Impact index in year of publication: 0.288
Journal in the top 25%: No
Position of publication: 204
No. of journals in the cat.: 325

Source of citations: SCOPUS
Citations: 15

Source of citations: WOS
Citations: 12

15 Sáez, Aurora; Acha, Begoña; Montero-Sánchez, Adoración; Rivas, Eloy; Escudero, Luis M.; Serrano, Carmen. Neuromuscular disease classification system. JOURNAL OF BIOMEDICAL OPTICS. 18 - 6, pp. 066017. SPIE-SOC PHOTO-OPTICAL INSTRUMENTATION ENGINEERS, 2013. Available on-line at: <https://doi.org/10.1117/1.JBO.18.6.066017>. ISSN 1083-3668, ISSN 1560-2281

DOI: 10.1117/1.JBO.18.6.066017
Handle: 11441/57297
PMID: 23804164
Código WOS: WOS:000322341100057
Código Scopus: 84891614925
Type of production: Scientific paper
Format: Journal
Position of signature: 2
Total no. authors: 6

Impact source: ISI
Category: Science Edition - BIOCHEMICAL RESEARCH METHODS
Impact index in year of publication: 2.752
Journal in the top 25%: No
Position of publication: 30
No. of journals in the cat.: 78

Impact source: ISI
Impact index in year of publication: 2.752
Position of publication: 17
Category: Science Edition - OPTICS
Journal in the top 25%: Yes
No. of journals in the cat.: 83

Impact source: ISI
Impact index in year of publication: 2.752
Position of publication: 31
Category: Science Edition - RADIOLOGY, NUCLEAR MEDICINE & MEDICAL IMAGING
Journal in the top 25%: No
No. of journals in the cat.: 122

Impact source: SCOPUS
Impact index in year of publication: 1.387
Position of publication: 20
Category: Atomic and Molecular Physics, and Optics
Journal in the top 25%: Yes
No. of journals in the cat.: 155

Impact source: SCOPUS
Impact index in year of publication: 1.387
Position of publication: 12
Category: Biomaterials
Journal in the top 25%: Yes
No. of journals in the cat.: 68

Impact source: SCOPUS
Impact index in year of publication: 1.387
Position of publication: 30
Category: Biomedical Engineering
Journal in the top 25%: Yes
No. of journals in the cat.: 191

Impact source: SCOPUS
Impact index in year of publication: 1.387
Position of publication: 26
Category: Electronic, Optical and Magnetic Materials
Journal in the top 25%: Yes
No. of journals in the cat.: 191

Source of citations: SCOPUS
Citations: 9

Source of citations: WOS
Citations: 10

16 Mendoza, Carlos S.; Pérez-Carrasco, José Antonio; Sáez, Aurora; Acha, Begoña; Serrano, Carmen. Linearized Multidimensional Earth-Mover's-Distance Gradient Flows. IEEE TRANSACTIONS ON IMAGE PROCESSING. 22 - 12, pp. 5322 - 5335. IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC, 2013. Available on-line at: <https://doi.org/10.1109/TIP.2013.2279952>. ISSN 1057-7149, ISSN 1941-0042
DOI: 10.1109/TIP.2013.2279952
Código WOS: WOS:000331203200013
Código Scopus: 84903769969
Type of production: Scientific paper
Format: Journal
Position of signature: 4
Total no. authors: 5

Impact source: ISI
Impact index in year of publication: 3.111
Position of publication: 14
Category: Science Edition - COMPUTER SCIENCE, ARTIFICIAL INTELLIGENCE
Journal in the top 25%: Yes
No. of journals in the cat.: 121

Impact source: ISI
Impact index in year of publication: 3.111
Position of publication: 27
Category: Science Edition - ENGINEERING, ELECTRICAL & ELECTRONIC
Journal in the top 25%: Yes
No. of journals in the cat.: 248

Impact source: SCOPUS
Impact index in year of publication: 1.507
Position of publication: 4
Category: Computer Graphics and Computer-Aided Design
Journal in the top 25%: Yes
No. of journals in the cat.: 64

Impact source: SCOPUS
Category: Software

Impact index in year of publication: 1.507
Position of publication: 22
Journal in the top 25%: Yes
No. of journals in the cat.: 325

Source of citations: SCOPUS
Citations: 2

Source of citations: WOS
Citations: 2

17 Sáez, Aurora; Rivas, Eloy; Montero-Sánchez, Adoración; Paradas, Carmen; Acha, Begoña; Pascual, Alberto; Serrano, Carmen; Escudero, Luis M.. Quantifiable diagnosis of muscular dystrophies and neurogenic atrophies through network analysis. BMC MEDICINE. 11, BIOMED CENTRAL LTD, 2013. Available on-line at: <https://doi.org/10.1186/1741-7015-11-77>. ISSN 1741-7015

DOI: 10.1186/1741-7015-11-77
Handle: 11441/23243
PMID: 23514382
Código WOS: WOS:000318438500001
Código Scopus: 84875058762
Type of production: Scientific paper
Format: Journal
Position of signature: 5
Total no. authors: 8

Impact source: ISI
Category: Science Edition - MEDICINE, GENERAL & INTERNAL
Impact index in year of publication: 7.276
Position of publication: 9
Journal in the top 25%: Yes
No. of journals in the cat.: 156

Impact source: SCOPUS
Category: Medicine (miscellaneous)
Impact index in year of publication: 2.964
Position of publication: 78
Journal in the top 25%: Yes
No. of journals in the cat.: 2.852

Source of citations: SCOPUS
Citations: 17

Source of citations: WOS
Citations: 17

18 Acha, Begona; Serrano, Carmen; Fondon, Irene; Gomez-Cia, Tomas. Burn Depth Analysis Using Multidimensional Scaling Applied to Psychophysical Experiment Data. IEEE TRANSACTIONS ON MEDICAL IMAGING. 32 - 6, pp. 1111 - 1120. IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC, 2013. Available on-line at: <https://doi.org/10.1109/TMI.2013.2254719>. ISSN 0278-0062, ISSN 1558-254X

DOI: 10.1109/TMI.2013.2254719
PMID: 23542950
Código WOS: WOS:000319701800013
Código Scopus: 84878534258
Type of production: Scientific paper
Format: Journal
Position of signature: 1
Total no. authors: 4
Corresponding author: Yes

Impact source: ISI
Category: Science Edition - COMPUTER SCIENCE, INTERDISCIPLINARY APPLICATIONS
Impact index in year of publication: 3.799
Position of publication: 10
Journal in the top 25%: Yes
No. of journals in the cat.: 102

Impact source: ISI
Category: Science Edition - ENGINEERING, BIOMEDICAL
Impact index in year of publication: 3.799
Position of publication: 7
Journal in the top 25%: Yes
No. of journals in the cat.: 76

Impact source: ISI

Impact index in year of publication: 3.799
Position of publication: 16
Category: Science Edition - ENGINEERING, ELECTRICAL & ELECTRONIC
Journal in the top 25%: Yes
No. of journals in the cat.: 248

Impact source: ISI
Impact index in year of publication: 3.799
Position of publication: 2
Category: Science Edition - IMAGING SCIENCE & PHOTOGRAPHIC TECHNOLOGY
Journal in the top 25%: Yes
No. of journals in the cat.: 23

Impact source: ISI
Impact index in year of publication: 3.799
Position of publication: 15
Category: Science Edition - RADIOLOGY, NUCLEAR MEDICINE & MEDICAL IMAGING
Journal in the top 25%: Yes
No. of journals in the cat.: 122

Impact source: SCOPUS
Impact index in year of publication: 2.089
Position of publication: 20
Category: Computer Science Applications
Journal in the top 25%: Yes
No. of journals in the cat.: 498

Impact source: SCOPUS
Impact index in year of publication: 2.089
Position of publication: 23
Category: Electrical and Electronic Engineering
Journal in the top 25%: Yes
No. of journals in the cat.: 622

Impact source: SCOPUS
Impact index in year of publication: 2.089
Position of publication: 3
Category: Radiological and Ultrasound Technology
Journal in the top 25%: Yes
No. of journals in the cat.: 47

Impact source: SCOPUS
Impact index in year of publication: 2.089
Position of publication: 12
Category: Software
Journal in the top 25%: Yes
No. of journals in the cat.: 325

Source of citations: SCOPUS
Citations: 33

Source of citations: WOS
Citations: 28

19 Pérez-Carrasco, José Antonio; Zhao, Bo; Serrano, Carmen; Acha, Begoña; Serrano-Gotarredona, Teresa; Chen, Shouchun; Linares-Barranco, Bernabé. Mapping from Frame-Driven to Frame-Free Event-Driven Vision Systems by Low-Rate Rate Coding and Coincidence Processing-Application to Feedforward ConvNets. IEEE TRANSACTIONS ON PATTERN ANALYSIS AND MACHINE INTELLIGENCE. 35 - 11, pp. 2706 - 2719. IEEE COMPUTER SOC, 2013. Available on-line at: <https://doi.org/10.1109/TPAMI.2013.71>. ISSN 0162-8828, ISSN 1939-3539

DOI: 10.1109/TPAMI.2013.71
Handle: 11441/79657
PMID: 24051730
Código WOS: WOS:000324830900011
Código Scopus: 84884548464
Type of production: Scientific paper
Format: Journal
Position of signature: 4
Total no. authors: 7

Impact source: ISI
Impact index in year of publication: 5.694
Position of publication: 4
Category: Science Edition - COMPUTER SCIENCE, ARTIFICIAL INTELLIGENCE
Journal in the top 25%: Yes
No. of journals in the cat.: 121

Impact source: ISI

Category: Science Edition - ENGINEERING, ELECTRICAL & ELECTRONIC
Impact index in year of publication: 5.694 **Journal in the top 25%:** Yes
Position of publication: 5 **No. of journals in the cat.:** 248

Impact source: SCOPUS **Category:** Applied Mathematics
Impact index in year of publication: 4.301 **Journal in the top 25%:** Yes
Position of publication: 7 **No. of journals in the cat.:** 415

Impact source: SCOPUS **Category:** Artificial Intelligence
Impact index in year of publication: 4.301 **Journal in the top 25%:** Yes
Position of publication: 2 **No. of journals in the cat.:** 152

Impact source: SCOPUS **Category:** Computational Theory and Mathematics
Impact index in year of publication: 4.301 **Journal in the top 25%:** Yes
Position of publication: 3 **No. of journals in the cat.:** 104

Impact source: SCOPUS **Category:** Computer Vision and Pattern Recognition
Impact index in year of publication: 4.301 **Journal in the top 25%:** Yes
Position of publication: 2 **No. of journals in the cat.:** 60

Impact source: SCOPUS **Category:** Software
Impact index in year of publication: 4.301 **Journal in the top 25%:** Yes
Position of publication: 3 **No. of journals in the cat.:** 325

Source of citations: SCOPUS **Citations:** 214

Source of citations: WOS **Citations:** 185

20 Mendoza, Carlos S.; Acha, Begoña; Serrano, Carmen; Gómez-Cía, Tomás. Fast parameter-free region growing segmentation with application to surgical planning. MACHINE VISION AND APPLICATIONS. 23 - 1, pp. 165 - 177. SPRINGER, 2012. Available on-line at: <https://doi.org/10.1007/s00138-010-0274-z>. ISSN 0932-8092, ISSN 1432-1769
DOI: 10.1007/s00138-010-0274-z
Código WOS: WOS:000299330600012
Código Scopus: 84857036872
Type of production: Scientific paper **Format:** Journal
Position of signature: 2
Total no. authors: 4

Impact source: ISI **Category:** Science Edition - COMPUTER SCIENCE, ARTIFICIAL INTELLIGENCE
Impact index in year of publication: 1.103 **Journal in the top 25%:** No
Position of publication: 65 **No. of journals in the cat.:** 115

Impact source: ISI **Category:** Science Edition - COMPUTER SCIENCE, CYBERNETICS
Impact index in year of publication: 1.103 **Journal in the top 25%:** No
Position of publication: 12 **No. of journals in the cat.:** 21

Impact source: ISI **Category:** Science Edition - ENGINEERING, ELECTRICAL & ELECTRONIC
Impact index in year of publication: 1.103 **Journal in the top 25%:** No
Position of publication: 122 **No. of journals in the cat.:** 243

Impact source: SCOPUS **Category:** Computer Science Applications

Impact index in year of publication: 0.413
Position of publication: 240
Journal in the top 25%: No
No. of journals in the cat.: 486

Impact source: SCOPUS
Impact index in year of publication: 0.413
Position of publication: 25
Category: Computer Vision and Pattern Recognition
Journal in the top 25%: No
No. of journals in the cat.: 57

Impact source: SCOPUS
Impact index in year of publication: 0.413
Position of publication: 47
Category: Hardware and Architecture
Journal in the top 25%: No
No. of journals in the cat.: 120

Impact source: SCOPUS
Impact index in year of publication: 0.413
Position of publication: 156
Category: Software
Journal in the top 25%: No
No. of journals in the cat.: 324

Source of citations: SCOPUS
Citations: 12

Source of citations: WOS
Citations: 7

21 Jiménez, S.; Alemany, P.; Núñez, F. J.; Fondón, I.; Serrano, C.; Acha, B.; Failde, I.. Automated detection of microaneurysms by using region growing and fuzzy artmap neural network. Archivos de la Sociedad Española de Oftalmología. 87 - 9, pp. 284 - 289. Elsevier Doyma, 2012. Available on-line at: <https://doi.org/10.1016/j.oftal.2012.04.013>. ISSN 0365-6691, ISSN 1989-7286
DOI: 10.1016/j.oftal.2012.04.013
Handle: 11441/128833
PMID: 22824647
Código Scopus: 84864280239
Código de Dialnet: ARTREV 3991756
Type of production: Scientific paper
Format: Journal
Position of signature: 6
Total no. authors: 7

Impact source: SCOPUS
Impact index in year of publication: 0.233
Position of publication: 68
Category: Ophthalmology
Journal in the top 25%: No
No. of journals in the cat.: 111

Source of citations: SCOPUS
Citations: 4

Source of citations: Dialnet
Citations: 0

22 Jiménez, S.; Alemany, P.; Núñez Benjumea, F.; Serrano, C.; Acha, B.; Fondón, I.; Carral, F.; Sánchez, C.. Automatic detection of microaneurysms in colour fundus images. Archivos de la Sociedad Española de Oftalmología. 86 - 9, pp. 277 - 281. Elsevier Doyma, 2011. Available on-line at: <https://doi.org/10.1016/j.oftal.2011.04.015>. ISSN 0365-6691, ISSN 1989-7286
DOI: 10.1016/j.oftal.2011.04.015
PMID: 21893260
Código Scopus: 80052503396
Código de Dialnet: ARTREV 6335945
Type of production: Scientific paper
Format: Journal
Position of signature: 5
Total no. authors: 8

Impact source: SCOPUS
Impact index in year of publication: 0.274
Position of publication: 62
Category: Ophthalmology
Journal in the top 25%: No
No. of journals in the cat.: 103

Source of citations: SCOPUS **Citations:** 6

Source of citations: Dialnet **Citations:** 0

23 Prieto, María Felicidad; Acha, Begoña; Gómez-Cía, Tomás; Fondón, Irene; Serrano, Carmen. A system for 3D representation of burns and calculation of burnt skin area. BURNS. 37 - 7, pp. 1233 - 1240. ELSEVIER SCI LTD, 2011. Available on-line at: <https://doi.org/10.1016/j.burns.2011.05.018>. ISSN 0305-4179, ISSN 1879-1409

DOI: 10.1016/j.burns.2011.05.018
PMID: 21703768
Código WOS: WOS:000296075600022
Código Scopus: 80052971463
Type of production: Scientific paper **Format:** Journal
Position of signature: 2
Total no. authors: 5

Impact source: ISI **Category:** Science Edition - CRITICAL CARE MEDICINE
Impact index in year of publication: 1.962 **Journal in the top 25%:** No
Position of publication: 19 **No. of journals in the cat.:** 26

Impact source: ISI **Category:** Science Edition - DERMATOLOGY
Impact index in year of publication: 1.962 **Journal in the top 25%:** No
Position of publication: 22 **No. of journals in the cat.:** 58

Impact source: ISI **Category:** Science Edition - SURGERY
Impact index in year of publication: 1.962 **Journal in the top 25%:** No
Position of publication: 61 **No. of journals in the cat.:** 199

Impact source: SCOPUS **Category:** Critical Care and Intensive Care Medicine
Impact index in year of publication: 0.777 **Journal in the top 25%:** Yes
Position of publication: 16 **No. of journals in the cat.:** 83

Impact source: SCOPUS **Category:** Emergency Medicine
Impact index in year of publication: 0.777 **Journal in the top 25%:** Yes
Position of publication: 9 **No. of journals in the cat.:** 70

Impact source: SCOPUS **Category:** Medicine (miscellaneous)
Impact index in year of publication: 0.777 **Journal in the top 25%:** No
Position of publication: 727 **No. of journals in the cat.:** 2.811

Impact source: SCOPUS **Category:** Surgery
Impact index in year of publication: 0.777 **Journal in the top 25%:** Yes
Position of publication: 93 **No. of journals in the cat.:** 369

Source of citations: SCOPUS **Citations:** 36

Source of citations: WOS **Citations:** 29

24 Perez-Carrasco, José Antonio; Acha, Begoña; Serrano, Carmen; Camunas-Mesa, Luis; Serrano-Gotarredona, Teresa; Linares-Barranco, Bernabé. Fast Vision Through Frameless Event-Based Sensing and Convolutional Processing: Application to Texture Recognition. IEEE TRANSACTIONS ON NEURAL NETWORKS. 21 - 4, pp. 609 - 620. IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC, 2010. Available on-line at: <https://doi.org/10.1109/TNN.2009.2039943>. ISSN 1045-9227, ISSN 1941-0093

DOI: 10.1109/TNN.2009.2039943
Handle: 11441/71324

PMID: 20181543
Código WOS: WOS:000276257000006
Código Scopus: 77950860651
Type of production: Scientific paper
Format: Journal
Position of signature: 2
Total no. authors: 6

Impact source: ISI
Category: Science Edition - COMPUTER SCIENCE, ARTIFICIAL INTELLIGENCE
Impact index in year of publication: 2.633
Journal in the top 25%: Yes
Position of publication: 17
No. of journals in the cat.: 108

Impact source: ISI
Category: Science Edition - COMPUTER SCIENCE, HARDWARE & ARCHITECTURE
Impact index in year of publication: 2.633
Journal in the top 25%: Yes
Position of publication: 3
No. of journals in the cat.: 48

Impact source: ISI
Category: Science Edition - COMPUTER SCIENCE, THEORY & METHODS
Impact index in year of publication: 2.633
Journal in the top 25%: Yes
Position of publication: 8
No. of journals in the cat.: 97

Impact source: ISI
Category: Science Edition - ENGINEERING, ELECTRICAL & ELECTRONIC
Impact index in year of publication: 2.633
Journal in the top 25%: Yes
Position of publication: 22
No. of journals in the cat.: 247

Source of citations: SCOPUS
Citations: 33

Source of citations: WOS
Citations: 28

25 Jiménez, S.; Alemany, P.; Fondón, I.; Foncubierta, A.; Acha, B.; Serrano, C.. Automatic detection of vessels in color fundus images. Archivos de la Sociedad Española de Oftalmología. 85 - 3, pp. 103 - 109. Elsevier Doyma, 2010. Available on-line at: <https://doi.org/10.1016/S0365-6691(10)70029-0>. ISSN 0365-6691, ISSN 1989-7286
DOI: 10.1016/S0365-6691(10)70029-0
PMID: 20619121
Código Scopus: 77955695847
Type of production: Scientific paper
Format: Journal
Position of signature: 5
Total no. authors: 6

Impact source: SCOPUS
Category: Ophthalmology
Impact index in year of publication: 0.221
Journal in the top 25%: No
Position of publication: 67
No. of journals in the cat.: 104

Source of citations: SCOPUS
Citations: 6

26 Soledad Jiménez Carmona; Pedro Alemany Marquez; Irene Fondón; A. Foncubierta; Begoña Acha Piñero; Carmen Serrano Gotarredona. Detección automática de vasos en retinografías. Archivos de la Sociedad Española de Oftalmología. 85 - 3, pp. 103 - 109. Elsevier Doyma, 2010. Available on-line at: <https://doi.org/10.4321/s0365-66912010000300003>. ISSN 0365-6691, ISSN 1989-7286
DOI: 10.4321/s0365-66912010000300003
Handle: 11441/23242
Código de Dialnet: ARTREV 6317169
Type of production: Scientific paper
Format: Journal

Position of signature: 5
Total no. authors: 6

Impact source: SCOPUS
Impact index in year of publication: 0.221
Position of publication: 67
Category: Ophthalmology
Journal in the top 25%: No
No. of journals in the cat.: 104

Source of citations: Dialnet
Citations: 0

27 Gómez-Cía, T.; Gacto-Sánchez, P.; Sicilia, D.; Suárez, C.; Acha, B.; Serrano, C.; Parra, C.; Higuera, J.. The virtual reality tool VirSSPA in planning DIEP microsurgical breast reconstruction. International journal of computer assisted radiology and surgery. 4 - 4, pp. 375 - 382. SPRINGER, 2009. Available on-line at: <https://doi.org/10.1007/s11548-009-0311-4>. ISSN 1861-6410, ISSN 1861-6429
DOI: 10.1007/s11548-009-0311-4
PMID: 20033584
Código WOS: WOS:000207884700008
Código Scopus: 67749092921
Type of production: Scientific paper
Format: Journal
Position of signature: 5
Total no. authors: 8

Impact source: SCOPUS
Impact index in year of publication: 0.198
Position of publication: 97
Category: Biomedical Engineering
Journal in the top 25%: No
No. of journals in the cat.: 131

Impact source: SCOPUS
Impact index in year of publication: 0.198
Position of publication: 43
Category: Computer Graphics and Computer-Aided Design
Journal in the top 25%: No
No. of journals in the cat.: 60

Impact source: SCOPUS
Impact index in year of publication: 0.198
Position of publication: 327
Category: Computer Science Applications
Journal in the top 25%: No
No. of journals in the cat.: 419

Impact source: SCOPUS
Impact index in year of publication: 0.198
Position of publication: 37
Category: Computer Vision and Pattern Recognition
Journal in the top 25%: No
No. of journals in the cat.: 47

Impact source: SCOPUS
Impact index in year of publication: 0.198
Position of publication: 36
Category: Health Informatics
Journal in the top 25%: No
No. of journals in the cat.: 44

Impact source: SCOPUS
Impact index in year of publication: 0.198
Position of publication: 1.673
Category: Medicine (miscellaneous)
Journal in the top 25%: No
No. of journals in the cat.: 2.752

Impact source: SCOPUS
Impact index in year of publication: 0.198
Position of publication: 163
Category: Radiology, Nuclear Medicine and Imaging
Journal in the top 25%: No
No. of journals in the cat.: 232

Impact source: SCOPUS
Impact index in year of publication: 0.198
Position of publication: 222
Category: Surgery
Journal in the top 25%: No
No. of journals in the cat.: 349

Source of citations: SCOPUS
Citations: 23

Source of citations: WOS
Citations: 20

28 Suárez, Cristina; Acha, B.; Serrano, C.; Parra, C.; Gómez, T.. VirSSPA-A virtual reality tool for surgical planning workflow. International journal of computer assisted radiology and surgery. 4 - 2, pp. 133 - 139. SPRINGER, 2009. Available on-line at: <https://doi.org/10.1007/s11548-009-0284-3>. ISSN 1861-6410, ISSN 1861-6429

DOI: 10.1007/s11548-009-0284-3
PMID: 20033611
Código WOS: WOS:000207884000004
Código Scopus: 67349090958
Type of production: Scientific paper
Format: Journal
Position of signature: 2
Total no. authors: 5

Impact source: SCOPUS
Impact index in year of publication: 0.198
Position of publication: 97
Category: Biomedical Engineering
Journal in the top 25%: No
No. of journals in the cat.: 131

Impact source: SCOPUS
Impact index in year of publication: 0.198
Position of publication: 43
Category: Computer Graphics and Computer-Aided Design
Journal in the top 25%: No
No. of journals in the cat.: 60

Impact source: SCOPUS
Impact index in year of publication: 0.198
Position of publication: 327
Category: Computer Science Applications
Journal in the top 25%: No
No. of journals in the cat.: 419

Impact source: SCOPUS
Impact index in year of publication: 0.198
Position of publication: 37
Category: Computer Vision and Pattern Recognition
Journal in the top 25%: No
No. of journals in the cat.: 47

Impact source: SCOPUS
Impact index in year of publication: 0.198
Position of publication: 36
Category: Health Informatics
Journal in the top 25%: No
No. of journals in the cat.: 44

Impact source: SCOPUS
Impact index in year of publication: 0.198
Position of publication: 1.673
Category: Medicine (miscellaneous)
Journal in the top 25%: No
No. of journals in the cat.: 2.752

Impact source: SCOPUS
Impact index in year of publication: 0.198
Position of publication: 163
Category: Radiology, Nuclear Medicine and Imaging
Journal in the top 25%: No
No. of journals in the cat.: 232

Impact source: SCOPUS
Impact index in year of publication: 0.198
Position of publication: 222
Category: Surgery
Journal in the top 25%: No
No. of journals in the cat.: 349

Source of citations: SCOPUS
Citations: 15

Source of citations: WOS
Citations: 11

29 Acha, Begoña; Serrano, Carmen; Rangayyan, Rangaraj M.; Desautels, J. E.Leo. Detection of microcalcifications in mammograms using error of prediction and statistical measures. JOURNAL OF ELECTRONIC IMAGING. 18 - 1, pp. 013011-1 - 013011-10. IS&T & SPIE, 2009. Available on-line at: <https://doi.org/10.1117/1.3099710>. ISSN 1017-9909, ISSN 1560-229X

DOI: 10.1117/1.3099710
Handle: 11441/57211

Código WOS: WOS:000268550900013
Código Scopus: 78650356628
Type of production: Scientific paper
Format: Journal
Position of signature: 1
Total no. authors: 4
Corresponding author: Yes
Impact source: ISI
Category: Science Edition - ENGINEERING, ELECTRICAL & ELECTRONIC
Impact index in year of publication: 0.444
Journal in the top 25%: No
Position of publication: 184
No. of journals in the cat.: 246

Impact source: ISI
Category: Science Edition - IMAGING SCIENCE & PHOTOGRAPHIC TECHNOLOGY
Impact index in year of publication: 0.444
Journal in the top 25%: No
Position of publication: 10
No. of journals in the cat.: 13

Impact source: ISI
Category: Science Edition - OPTICS
Impact index in year of publication: 0.444
Journal in the top 25%: No
Position of publication: 58
No. of journals in the cat.: 71

Impact source: SCOPUS
Category: Atomic and Molecular Physics, and Optics
Impact index in year of publication: 0.317
Journal in the top 25%: No
Position of publication: 86
No. of journals in the cat.: 137

Impact source: SCOPUS
Category: Computer Science Applications
Impact index in year of publication: 0.317
Journal in the top 25%: No
Position of publication: 259
No. of journals in the cat.: 419

Impact source: SCOPUS
Category: Electrical and Electronic Engineering
Impact index in year of publication: 0.317
Journal in the top 25%: No
Position of publication: 239
No. of journals in the cat.: 554

Source of citations: SCOPUS
Citations: 6

Source of citations: WOS
Citations: 1

30 Serrano, C; Acha, BPattern analysis of dermoscopic images based on Markov random fields. PATTERN RECOGNITION. 42 - 6, pp. 1052 - 1057. ELSEVIER SCI LTD, 2009. Available on-line at: <https://doi.org/10.1016/j.patcog.2008.07.011>. ISSN 0031-3203, ISSN 1873-5142
DOI: 10.1016/j.patcog.2008.07.011
Código WOS: WOS:000264051600005
Código Scopus: 59249091656
Type of production: Scientific paper
Format: Journal
Position of signature: 2
Total no. authors: 2
Corresponding author: Yes
Impact source: ISI
Category: Science Edition - COMPUTER SCIENCE, ARTIFICIAL INTELLIGENCE
Impact index in year of publication: 2.554
Journal in the top 25%: Yes
Position of publication: 21
No. of journals in the cat.: 103

Impact source: ISI
Category: Science Edition - ENGINEERING, ELECTRICAL & ELECTRONIC
Impact index in year of publication: 2.554
Journal in the top 25%: Yes
Position of publication: 23
No. of journals in the cat.: 246

Impact source: SCOPUS
Impact index in year of publication: 1.163
Position of publication: 24
Category: Artificial Intelligence
Journal in the top 25%: Yes
No. of journals in the cat.: 130

Impact source: SCOPUS
Impact index in year of publication: 1.163
Position of publication: 8
Category: Computer Vision and Pattern Recognition
Journal in the top 25%: Yes
No. of journals in the cat.: 47

Impact source: SCOPUS
Impact index in year of publication: 1.163
Position of publication: 9
Category: Signal Processing
Journal in the top 25%: Yes
No. of journals in the cat.: 64

Impact source: SCOPUS
Impact index in year of publication: 1.163
Position of publication: 36
Category: Software
Journal in the top 25%: Yes
No. of journals in the cat.: 302

Source of citations: SCOPUS
Citations: 69

Source of citations: WOS
Citations: 60

31 Fondón, Irene; Serrano, Carmen; Acha, Begoña. Color-texture image segmentation based on multistep region growing. OPTICAL ENGINEERING. 45 - 5, pp. 057002-1 - 057002-9. SPIE-SOC PHOTO-OPTICAL INSTRUMENTATION ENGINEERS, 2006. Available on-line at: <https://doi.org/10.1117/1.2205900>. ISSN 0091-3286, ISSN 1560-2303
DOI: 10.1117/1.2205900
Handle: 11441/57089
Código WOS: WOS:000238662400039
Código Scopus: 33748630254
Type of production: Scientific paper
Format: Journal
Position of signature: 3
Total no. authors: 3

Impact source: ISI
Impact index in year of publication: 0.897
Position of publication: 31
Category: Science Edition - OPTICS
Journal in the top 25%: No
No. of journals in the cat.: 56

Impact source: SCOPUS
Impact index in year of publication: 0.542
Position of publication: 54
Category: Atomic and Molecular Physics, and Optics
Journal in the top 25%: No
No. of journals in the cat.: 128

Impact source: SCOPUS
Impact index in year of publication: 0.542
Position of publication: 54
Category: Engineering (miscellaneous)
Journal in the top 25%: Yes
No. of journals in the cat.: 256

Source of citations: SCOPUS
Citations: 10

Source of citations: WOS
Citations: 7

32 Acha, Begoña; Serrano, Carmen; Acha, José I.; Roa, Laura M.. Segmentation and classification of burn images by color and texture information. JOURNAL OF BIOMEDICAL OPTICS. 10 - 3, pp. 034014-1 - 034014-11. SPIE-SOC PHOTO-OPTICAL INSTRUMENTATION ENGINEERS, 2005. Available on-line at: <https://doi.org/10.1117/1.1921227>. ISSN 1083-3668, ISSN 1560-2281
DOI: 10.1117/1.1921227
Handle: 11441/56541
PMID: 16229658

Código WOS: WOS:000235127400034
Código Scopus: 24144477579
Type of production: Scientific paper
Format: Journal
Position of signature: 1
Total no. authors: 4
Corresponding author: Yes
Impact source: ISI
Category: Science Edition - BIOCHEMICAL RESEARCH METHODS
Impact index in year of publication: 3.557
Journal in the top 25%: Yes
Position of publication: 12
No. of journals in the cat.: 53

Impact source: ISI
Category: Science Edition - OPTICS
Impact index in year of publication: 3.557
Journal in the top 25%: Yes
Position of publication: 4
No. of journals in the cat.: 55

Impact source: ISI
Category: Science Edition - RADIOLOGY, NUCLEAR MEDICINE & MEDICAL IMAGING
Impact index in year of publication: 3.557
Journal in the top 25%: Yes
Position of publication: 9
No. of journals in the cat.: 84

Impact source: SCOPUS
Category: Atomic and Molecular Physics, and Optics
Impact index in year of publication: 1.553
Journal in the top 25%: Yes
Position of publication: 13
No. of journals in the cat.: 125

Impact source: SCOPUS
Category: Biomaterials
Impact index in year of publication: 1.553
Journal in the top 25%: Yes
Position of publication: 5
No. of journals in the cat.: 39

Impact source: SCOPUS
Category: Biomedical Engineering
Impact index in year of publication: 1.553
Journal in the top 25%: Yes
Position of publication: 6
No. of journals in the cat.: 81

Impact source: SCOPUS
Category: Electronic, Optical and Magnetic Materials
Impact index in year of publication: 1.553
Journal in the top 25%: Yes
Position of publication: 16
No. of journals in the cat.: 156

Source of citations: SCOPUS
Citations: 49

Source of citations: WOS
Citations: 38

33 Serrano, Carmen; Acha, Begoña; Gómez-Cía, Tomás; Acha, José I.; Roa, Laura M.. A computer assisted diagnosis tool for the classification of burns by depth of injury. BURNS. 31 - 3, pp. 275 - 281. ELSEVIER SCI LTD, 2005. Available on-line at: <https://doi.org/10.1016/j.burns.2004.11.019>. ISSN 0305-4179, ISSN 1879-1409
DOI: 10.1016/j.burns.2004.11.019
PMID: 15774281
Código WOS: WOS:000229158800004
Código Scopus: 14944380096
Type of production: Scientific paper
Format: Journal
Position of signature: 2
Total no. authors: 5
Corresponding author: Yes
Impact source: ISI
Category: Science Edition - CRITICAL CARE MEDICINE
Impact index in year of publication: 1.199
Journal in the top 25%: No
Position of publication: 12
No. of journals in the cat.: 18

Impact source: ISI
Impact index in year of publication: 1.199
Position of publication: 25
Category: Science Edition - DERMATOLOGY
Journal in the top 25%: No
No. of journals in the cat.: 39

Impact source: ISI
Impact index in year of publication: 1.199
Position of publication: 56
Category: Science Edition - SURGERY
Journal in the top 25%: No
No. of journals in the cat.: 139

Impact source: SCOPUS
Impact index in year of publication: 0.634
Position of publication: 14
Category: Critical Care and Intensive Care Medicine
Journal in the top 25%: Yes
No. of journals in the cat.: 68

Impact source: SCOPUS
Impact index in year of publication: 0.634
Position of publication: 7
Category: Emergency Medicine
Journal in the top 25%: Yes
No. of journals in the cat.: 52

Impact source: SCOPUS
Impact index in year of publication: 0.634
Position of publication: 603
Category: Medicine (miscellaneous)
Journal in the top 25%: Yes
No. of journals in the cat.: 2.758

Impact source: SCOPUS
Impact index in year of publication: 0.634
Position of publication: 71
Category: Surgery
Journal in the top 25%: Yes
No. of journals in the cat.: 313

Source of citations: SCOPUS
Citations: 41

Source of citations: WOS
Citations: 34

34 Acha, B; Serrano, C; Acha, JI; Roa, LM. CAD tool for burn diagnosis. INFORMATION PROCESSING IN MEDICAL IMAGING, PROCEEDINGS. 2732, pp. 294 - 305. SPRINGER, 2003. Available on-line at: <https://doi.org/10.1007/978-3-540-45087-0_25>. ISSN 0302-9743, ISSN 1611-3349, ISBN 3-540-40560-7
DOI: 10.1007/978-3-540-45087-0_25
Handle: 11441/128507
PMID: 15344466
Código WOS: WOS:000185604900025
Código Scopus: 33748633708
Collection: Lecture Notes in Computer Science
Type of production: Scientific paper
Format: Book
Position of signature: 1
Total no. authors: 4
Corresponding author: Yes

Impact source: SCOPUS
Impact index in year of publication: 0.410
Position of publication: 36
Category: Computer Science (miscellaneous)
Journal in the top 25%: No
No. of journals in the cat.: 88

Impact source: SCOPUS
Impact index in year of publication: 0.410
Position of publication: 50
Category: Theoretical Computer Science
Journal in the top 25%: No
No. of journals in the cat.: 82

Source of citations: SCOPUS
Citations: 18

Source of citations: WOS
Citations: 15

35 Serrano, C; Pinero, BA; Rangayyan, RM; Roa, LM. Segmentation-based lossless compression of burn wound images. JOURNAL OF ELECTRONIC IMAGING. 10 - 3, pp. 720 - 726. IS&T & SPIE, 2001. Available on-line at: <https://doi.org/10.1117/1.1383781>. ISSN 1017-9909, ISSN 1560-229X

DOI: 10.1117/1.1383781
Handle: 11441/56675
Código WOS: WOS:000170721100016
Código Scopus: 0035387643
Type of production: Scientific paper
Format: Journal
Position of signature: 2
Total no. authors: 4

Impact source: ISI
Category: Science Edition - ENGINEERING, ELECTRICAL & ELECTRONIC
Impact index in year of publication: 0.723
Journal in the top 25%: No
Position of publication: 79
No. of journals in the cat.: 200

Impact source: ISI
Category: Science Edition - IMAGING SCIENCE & PHOTOGRAPHIC TECHNOLOGY
Impact index in year of publication: 0.723
Journal in the top 25%: No
Position of publication: 6
No. of journals in the cat.: 14

Impact source: ISI
Category: Science Edition - OPTICS
Impact index in year of publication: 0.723
Journal in the top 25%: No
Position of publication: 28
No. of journals in the cat.: 54

Impact source: SCOPUS
Category: Atomic and Molecular Physics, and Optics
Impact index in year of publication: 0.686
Journal in the top 25%: No
Position of publication: 41
No. of journals in the cat.: 116

Impact source: SCOPUS
Category: Computer Science Applications
Impact index in year of publication: 0.686
Journal in the top 25%: No
Position of publication: 84
No. of journals in the cat.: 251

Impact source: SCOPUS
Category: Electrical and Electronic Engineering
Impact index in year of publication: 0.686
Journal in the top 25%: No
Position of publication: 120
No. of journals in the cat.: 432

Source of citations: SCOPUS
Citations: 4

Source of citations: WOS
Citations: 2

36 Roa, L; Gomez-Cia, T; Acha, B; Serrano, C. Digital imaging in remote diagnosis of burns. BURNS. 25 - 7, pp. 617 - 623. ELSEVIER SCI LTD, 1999. Available on-line at: <https://doi.org/10.1016/S0305-4179(99)00053-4>. ISSN 0305-4179, ISSN 1879-1409

DOI: 10.1016/S0305-4179(99)00053-4
PMID: 10563688
Código WOS: WOS:000083391000010
Código Scopus: 0033231688
Type of production: Scientific paper
Format: Journal
Position of signature: 3
Total no. authors: 4

Impact source: ISI
Category: Science Edition - DERMATOLOGY & VENEREAL DISEASES
Impact index in year of publication: 0.636
Journal in the top 25%: No
Position of publication: 25
No. of journals in the cat.: 36

Impact source: ISI
Category: Science Edition - EMERGENCY MEDICINE & CRITICAL CARE
Impact index in year of publication: 0.636
Journal in the top 25%: No
Position of publication: 14
No. of journals in the cat.: 23

Impact source: ISI
Category: Science Edition - SURGERY
Impact index in year of publication: 0.636
Journal in the top 25%: No
Position of publication: 83
No. of journals in the cat.: 131

Impact source: SCOPUS
Category: Critical Care and Intensive Care Medicine
Impact index in year of publication: 0.480
Journal in the top 25%: Yes
Position of publication: 10
No. of journals in the cat.: 50

Impact source: SCOPUS
Category: Emergency Medicine
Impact index in year of publication: 0.480
Journal in the top 25%: Yes
Position of publication: 4
No. of journals in the cat.: 35

Impact source: SCOPUS
Category: Medicine (miscellaneous)
Impact index in year of publication: 0.480
Journal in the top 25%: Yes
Position of publication: 556
No. of journals in the cat.: 2.845

Impact source: SCOPUS
Category: Surgery
Impact index in year of publication: 0.480
Journal in the top 25%: Yes
Position of publication: 68
No. of journals in the cat.: 276

Source of citations: SCOPUS
Citations: 61

Source of citations: WOS
Citations: 49

37 Acha, B; Serrano, C; Rangayyan, RM; Roa, LM. Lossless compression algorithm for colour images. ELECTRONICS LETTERS. 35 - 3, pp. 214 - 215. INST ENGINEERING TECHNOLOGY-IET, 1999. Available on-line at: <https://doi.org/10.1049/el:19990162>. ISSN 0013-5194, ISSN 1350-911X
DOI: 10.1049/el:19990162
Código WOS: WOS:000078694200023
Código Scopus: 0033521808
Type of production: Scientific paper
Format: Journal
Position of signature: 1
Total no. authors: 4
Corresponding author: Yes
Impact source: ISI
Category: Science Edition - ENGINEERING, ELECTRICAL & ELECTRONIC
Impact index in year of publication: 1.164
Journal in the top 25%: Yes
Position of publication: 40
No. of journals in the cat.: 205

Impact source: SCOPUS
Category: Electrical and Electronic Engineering
Impact index in year of publication: 1.511
Journal in the top 25%: Yes
Position of publication: 23
No. of journals in the cat.: 418

Source of citations: SCOPUS
Citations: 4

Source of citations: WOS
Citations: 2

38 Serrano-Gotarredona, Maria Carmen; Roa-Romero, Laura María; Acha-Piñero, Begoña; Gómez-Cía, Pedro Tómas. Aspectos metodológicos para la realización de una plataforma de telemedicina en una unidad de quemados. International Journal of Telemedicine and Applications. 12, pp. 24 - 32. HINDAWI PUBLISHING CORPORATION, 1999. ISSN 1687-6415

Type of production: Scientific paper
Format: Journal
Position of signature: 3
Total no. authors: 4

39 Acha-Piñero, Begoña; Pérez-Carrasco, José Antonio; Serrano-Gotarredona, Carmen. CAD tool and telemedicine for burns. Medical Image Analysis and Informatics: Computer-Aided Diagnosis and Therapy. pp. 129 - 143. 2017. Available on-line at: <https://doi.org/10.1201/9781351228343>. ISBN 9781498753203, ISBN 9781498753197

DOI: 10.1201/9781351228343
Código Scopus: 85053340741
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
Source of citations: SCOPUS
Citations: 0

40 Sáez, Aurora; Serrano, Carmen; Acha, Begona. Global pattern classification in dermoscopic images. Dermoscopy Image Analysis. pp. 183 - 210. 2015. Available on-line at: <https://doi.org/10.1201/b19107>. ISBN 9781482253276, ISBN 9781482253269

DOI: 10.1201/b19107
Código Scopus: 85040089250
Type of production: Book chapter
Format: Book
Position of signature: 3
Degree of contribution: Author or co-author of chapter in book
Total no. authors: 3
Source of citations: SCOPUS
Citations: 2

41 Fondon, Irene; Serrano, Carmen; Acha, Begoña; Jimenez, Soledad. Automated cup-to-disc ratio estimation for glaucoma diagnosis in retinal fundus images. IMAGE ANALYSIS AND MODELING IN OPHTHALMOLOGY. pp. 179 - 201. CRC PRESS-TAYLOR & FRANCIS GROUP, 2014. Available on-line at: <https://doi.org/10.1201/b16510>. ISBN 978-1-4665-5930-1, ISBN 978-1-4665-5938-7

DOI: 10.1201/b16510
Código WOS: WOS:000355133700012
Código Scopus: 84961683465
Type of production: Book chapter
Format: Book
Position of signature: 3
Degree of contribution: Author or co-author of chapter in book
Total no. authors: 4
Source of citations: SCOPUS
Citations: 2
Source of citations: WOS
Citations: 2

42 Sáez, Aurora; Serrano, Carmen; Acha, Begoña. A review on CAD tools for burn diagnosis. Lecture Notes in Computational Vision and Biomechanics. 6, pp. 181 - 202. Kluwer Academic Publishers, 2013. Available on-line at: <https://doi.org/10.1007/978-94-007-5389-1_10>. ISSN 2212-9391, ISSN 2212-9413

DOI: 10.1007/978-94-007-5389-1_10
Código Scopus: 84966529133
Type of production: Book chapter
Format: Journal
Position of signature: 3

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

Total no. authors: 3

Impact source: SCOPUS
Impact index in year of publication: 0.151
Position of publication: 138
Category: Artificial Intelligence
Journal in the top 25%: No
No. of journals in the cat.: 152

Impact source: SCOPUS
Impact index in year of publication: 0.151
Position of publication: 165
Category: Biomedical Engineering
Journal in the top 25%: No
No. of journals in the cat.: 191

Impact source: SCOPUS
Impact index in year of publication: 0.151
Position of publication: 452
Category: Computer Science Applications
Journal in the top 25%: No
No. of journals in the cat.: 498

Impact source: SCOPUS
Impact index in year of publication: 0.151
Position of publication: 53
Category: Computer Vision and Pattern Recognition
Journal in the top 25%: No
No. of journals in the cat.: 60

Impact source: SCOPUS
Impact index in year of publication: 0.151
Position of publication: 430
Category: Mechanical Engineering
Journal in the top 25%: No
No. of journals in the cat.: 545

Impact source: SCOPUS
Impact index in year of publication: 0.151
Position of publication: 65
Category: Signal Processing
Journal in the top 25%: No
No. of journals in the cat.: 77

Source of citations: SCOPUS
Citations: 1

43 Acha, Begoña; Serrano, Carmen; Rangayyan, Rangaraj M.; Desautels, J. E.Leo. Detection of microcalcifications in mammograms. Recent Advances in Breast Imaging, Mammography, and Computer-Aided Diagnosis of Breast Cancer. pp. 291 - 314. 2006. Available on-line at: <https://doi.org/10.1117/3.651880.ch9>. ISBN 9780819481092, ISBN 0819460818, ISBN 9780819460813
DOI: 10.1117/3.651880.ch9
Código Scopus: 84956802229
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
Source of citations: SCOPUS
Citations: 14

44 Suri, Jasjit S.; Chandrasekhar, Ramachandran; Lanconelli, Nico; Campanini, Renato; Roffilli, Matteo; Chang, Ruey Feng; Guo, Yujun; Sivaramakrishna, Radhika; Tot, Tibor; Acha, Begoña; Serrano, Carmen; Reiser, Ingrid; Nishikawa, Robert M.; Wu, Dee H.; Wong, Koon Pong; Kshirsagar, Ashwini; Sun, Yajie; Wirth, Michael; Cao, Aize; Desautels, J. E.Leo; Rangayyan, Rangaraj M.. The current status and likely future of breast imaging CAD. Recent Advances in Breast Imaging, Mammography, and Computer-Aided Diagnosis of Breast Cancer. pp. 901 - 961. 2006. Available on-line at: <https://doi.org/10.1117/3.651880.ch28>. ISBN 9780819481092, ISBN 0819460818, ISBN 9780819460813
DOI: 10.1117/3.651880.ch28
Código Scopus: 84898241867
Type of production: Book chapter
Format: Book
Position of signature: 10
Degree of contribution: Author or co-author of chapter in book

Total no. authors: 21

Source of citations: SCOPUS **Citations:** 1

45 Prieto, María Felicidad; Acha, Begoña; Gómez-Cía, Tomás; Fondón, Irene; Serrano, Carmen. Reply to comments on "A system for 3D representation of burns and calculation of burnt skin area". BURNS. 38 - 7, pp. 1093 - 1094. ELSEVIER SCI LTD, 2012. Available on-line at: <https://doi.org/10.1016/j.burns.2012.04.005>. ISSN 0305-4179, ISSN 1879-1409

DOI: 10.1016/j.burns.2012.04.005
Código WOS: WOS:000310410300023
Código Scopus: 84866008219
Type of production: Letter **Format:** Journal
Position of signature: 2
Total no. authors: 5

Impact source: ISI **Category:** Science Edition - CRITICAL CARE MEDICINE
Impact index in year of publication: 1.799 **Journal in the top 25%:** No
Position of publication: 19 **No. of journals in the cat.:** 27

Impact source: ISI **Category:** Science Edition - DERMATOLOGY
Impact index in year of publication: 1.799 **Journal in the top 25%:** No
Position of publication: 22 **No. of journals in the cat.:** 59

Impact source: ISI **Category:** Science Edition - SURGERY
Impact index in year of publication: 1.799 **Journal in the top 25%:** No
Position of publication: 68 **No. of journals in the cat.:** 199

Impact source: SCOPUS **Category:** Critical Care and Intensive Care Medicine
Impact index in year of publication: 0.672 **Journal in the top 25%:** Yes
Position of publication: 22 **No. of journals in the cat.:** 88

Impact source: SCOPUS **Category:** Emergency Medicine
Impact index in year of publication: 0.672 **Journal in the top 25%:** Yes
Position of publication: 15 **No. of journals in the cat.:** 76

Impact source: SCOPUS **Category:** Medicine (miscellaneous)
Impact index in year of publication: 0.672 **Journal in the top 25%:** No
Position of publication: 894 **No. of journals in the cat.:** 2.833

Impact source: SCOPUS **Category:** Surgery
Impact index in year of publication: 0.672 **Journal in the top 25%:** No
Position of publication: 108 **No. of journals in the cat.:** 380

Source of citations: SCOPUS **Citations:** 0

Source of citations: WOS **Citations:** 0

Works submitted to national or international conferences

1 **Title of the work:** Detección de criterios dermatoscópicos del carcinoma basocelular mediante aprendizaje profundo
Type of event: Conference
M. Lazo; Begoña Acha Piñero; T. Toledo; A. Serrano; R. Barros; C. Serrano. "Detección de criterios dermatoscópicos del carcinoma basocelular mediante aprendizaje profundo". En: XXXVIII Congreso Anual de la Sociedad Española de Ingeniería Biomédica. CASEIB 2020: Libro de actas. pp. 468 - 471. Universidad Valladolid, 2020. ISBN 978-84-09-25491-0
Código de Dialnet: ARTLIB 8208059

2 **Title of the work:** Segmentación de hueso, músculo y grasa en volúmenes TAC mediante relajación convexa
Type of event: Conference
J. A. Pérez Carrasco; Carmen Serrano; Begoña Acha Piñero. "Segmentación de hueso, músculo y grasa en volúmenes TAC mediante relajación convexa". En: Hacia una salud personalizada y universal. XXXVII Congreso Anual de la Sociedad Española de Ingeniería Biomédica: Actas del Congreso CASEIB 2019. pp. 13 - 16. Universidad de Cantabria, 2019. ISBN 978-84-09-16707-4
Código de Dialnet: ARTLIB 8296306

3 **Title of the work:** Aplicación de técnicas de aprendizaje profundo (deep learning) a clasificación de imágenes histológica
Type of event: Conference
A. Suárez Lamadrid; Begoña Acha Piñero; C. Serrano Gotarredona. "Aplicación de técnicas de aprendizaje profundo (deep learning) a clasificación de imágenes histológica". En: Libro de Actas del XXXVI Congreso Anual de la Sociedad Española de Ingeniería Biomédica. pp. 349 - 352. Ma del Milagro Fernández Carrobles; Jesús Salido Tercero; Ma Gloria Bueno García; Óscar Déniz Suárez, 2018. ISBN 978-84-09-06253-9
Código de Dialnet: ARTLIB 8211081

4 **Title of the work:** Clasificación de Imágenes de Quemaduras Usando Características Físicas y Redes Neuronales Convolucionales
Type of event: Conference
J. A. Pérez Carrasco; C. Serrano; Begoña Acha Piñero. "Clasificación de Imágenes de Quemaduras Usando Características Físicas y Redes Neuronales Convolucionales". En: XXXV Congreso anual de la Sociedad Española de Ingeniería Biomédica: Libro de actas. pp. 517 - 520. Universidad del País Vasco/Euskal Herriko Unibertsitatea; Universidad del País Vasco = Euskal Herriko Unibertsitatea, 2017. ISBN 978-84-9082-797-0
Código de Dialnet: ARTLIB 8282204

5 **Title of the work:** Detección y clasificación de patrones globales en lesiones pigmentadas
Type of event: Conference
P. Caramé Matres; Carmen Serrano Gotarredona; Begoña Acha Piñero. "Detección y clasificación de patrones globales en lesiones pigmentadas". En: XXXV Congreso anual de la Sociedad Española de Ingeniería Biomédica: Libro de actas. pp. 163 - 166. Universidad del País Vasco/Euskal Herriko Unibertsitatea; Universidad del País Vasco = Euskal Herriko Unibertsitatea, 2017. ISBN 978-84-9082-797-0
Código de Dialnet: ARTLIB 8279307

6 **Title of the work:** Segmentation of Bone Structures by Removal of Skin and using a Convex Relaxation Technique
Type of event: Conference

Perez-Carrasco, JA; Acha, B; Suarez, C; Serrano, C. "Segmentation of Bone Structures by Removal of Skin and using a Convex Relaxation Technique". En: ICPRAM: PROCEEDINGS OF THE 6TH INTERNATIONAL CONFERENCE ON PATTERN RECOGNITION APPLICATIONS AND METHODS. 2017-January, pp. 549 - 556. SCITEPRESS, 2017. Available on-line at: <https://doi.org/10.5220/0006201105490556>. ISBN 978-989-758-222-6

DOI: 10.5220/0006201105490556

Código WOS: WOS:000413240500066

Código Scopus: 85049477984

7 **Title of the work:** Algoritmo de segmentación de lesiones pigmentadas de la piel basado en minimización de energías

Type of event: Conference

M. García Morales; Begoña Acha Piñero; C. Serrano. "Algoritmo de segmentación de lesiones pigmentadas de la piel basado en minimización de energías". En: XXXV Congreso anual de la Sociedad Española de Ingeniería Biomédica: Libro de actas. pp. 521 - 524. Universidad del País Vasco/Euskal Herriko Unibertsitatea; Universidad del País Vasco = Euskal Herriko Unibertsitatea, 2017. ISBN 978-84-9082-797-0

Código de Dialnet: ARTLIB 8282203

8 **Title of the work:** Comparación de un método de segmentación de tumores retroperitoneales con herramientas comerciales de uso clínico

Type of event: Conference

J. A. Pérez Carrasco; Cristina Suárez Mejías; Begoña Acha Piñero; José Luis López Guerra; C. Serrano. "Comparación de un método de segmentación de tumores retroperitoneales con herramientas comerciales de uso clínico". En: CASEIB 2016 XXXIV Congreso Anual de la Sociedad Española de Ingeniería Biomédica: Libro de actas. pp. 47 - 50. Universitat Politècnica de València; Universidad Politécnica de Valencia = Universitat Politècnica de València, 2016. ISBN 978-84-9048-531-6

Código de Dialnet: ARTLIB 8269309

9 **Title of the work:** Segmentation of Muscles in CT Volumes Using a Continuous Convex Relaxation Approach

Type of event: Conference

Pérez-Carrasco, José Antonio; Serrano, C.; Suárez-Mejías, Cristina; Acha, B."Segmentation of Muscles in CT Volumes Using a Continuous Convex Relaxation Approach". En: XIV MEDITERRANEAN CONFERENCE ON MEDICAL AND BIOLOGICAL ENGINEERING AND COMPUTING 2016. 57, pp. 337 - 340. SPRINGER, 2016. Available on-line at: <https://doi.org/10.1007/978-3-319-32703-7_66>. ISBN 978-3-319-32701-3, ISBN 978-3-319-32703-7

DOI: 10.1007/978-3-319-32703-7_66

Código WOS: WOS:000376283000066

Código Scopus: 84968649149

10 **Title of the work:** Detección automática de landmarks para evaluación objetiva de la reconstrucción mamaria post-mastectomía

Type of event: Conference

Francisco Nuñez Benjumea; Tomás Gómez Cía; Begoña Acha Piñero; R. Boloix; C. Serrano. "Detección automática de landmarks para evaluación objetiva de la reconstrucción mamaria post-mastectomía". En: Ingeniando la medicina del futuro. XXXIII Congreso Anual de la Sociedad Española de Ingeniería Biomédica. CASEIB 2015: Libro de Actas. pp. 142 - 145. Universidad Politécnica de Madrid, 2015. ISBN 978-84-608-3354-3

Código de Dialnet: ARTLIB 8276328

11 **Title of the work:** Segmentación de músculos mediante el uso de histogramas y maximización de flujo
Type of event: Conference
J. A. Pérez Carrasco; L. Anula; C. Serrano; Begoña Acha Piñero. "Segmentación de músculos mediante el uso de histogramas y maximización de flujo". En: Ingeniando la medicina del futuro. XXXIII Congreso Anual de la Sociedad Española de Ingeniería Biomédica. CASEIB 2015: Libro de Actas. pp. 22 - 25. Universidad Politécnica de Madrid, 2015. ISBN 978-84-608-3354-3
Código de Dialnet: ARTLIB 8271484

12 **Title of the work:** Continuous convex relaxation methodology applied to retroperitoneal tumors
Type of event: Conference
Cristina Suárez Mejías; J. A. Pérez Carrasco; C. Serrano; Carlos Luis Parra Calderón; Begoña Acha Piñero. "Continuous convex relaxation methodology applied to retroperitoneal tumors". En: Ingeniando la medicina del futuro. XXXIII Congreso Anual de la Sociedad Española de Ingeniería Biomédica. CASEIB 2015: Libro de Actas. pp. 146 - 149. Universidad Politécnica de Madrid, 2015. ISBN 978-84-608-3354-3
Código de Dialnet: ARTLIB 8276327

13 **Title of the work:** CIELAB based system for burn depth estimation
Type of event: Conference
Saéz, Aurora; Acha, Begoña; Serrano, Carmen. "CIELAB based system for burn depth estimation". En: 6th European Conference on Colour in Graphics, Imaging, and Vision 2012, CGIV 2012. pp. 86 - 91. 2012. ISBN 9781622767014
Código Scopus: 84878101654

14 **Title of the work:** Optic disc segmentation based on level-set and colour gradients
Type of event: Conference
Sáez, Aurora; Fondoń, Irene; Acha, Begoña; Jimeńez, Soledad; Alemany, Pedro; Abbas, Qaisar; Serrano, Carmen. "Optic disc segmentation based on level-set and colour gradients". En: 6th European Conference on Colour in Graphics, Imaging, and Vision 2012, CGIV 2012. pp. 121 - 125. 2012. ISBN 9781622767014
Código Scopus: 84878096879

15 **Title of the work:** Multi-dimensional earth mover's distance active contours
Type of event: Conference
Mendoza, CS; Bohorquez-Ruiz, G; Acha, B; Serrano, C. "Multi-dimensional earth mover's distance active contours". En: 2011 18TH IEEE INTERNATIONAL CONFERENCE ON IMAGE PROCESSING (ICIP). pp. 3173 - 3176. IEEE, 2011. Available on-line at: <https://doi.org/10.1109/ICIP.2011.6116341>. ISBN 978-1-4577-1303-3
DOI: 10.1109/ICIP.2011.6116341
Código WOS: WOS:000298962503077
Código Scopus: 84856289175

16 **Title of the work:** Evaluation perceptual color edge detection algorithms
Type of event: Conference
Sáez, Aurora; Serrano, Carmen; Acha, Begoña. "Evaluation perceptual color edge detection algorithms". En: 5th European Conference on Colour in Graphics, Imaging, and Vision and 12th International Symposium on Multispectral Colour Science 2010, CGIV 2010/MCS'10. pp. 222 - 227. 2010. ISBN 9781617388897
Código Scopus: 78649378011

17 **Title of the work:** Spike-based convolutional network for real-time processing
Type of event: Conference
Pérez-Carrasco, J. A.; Serrano, C.; Acha, B.; Serrano-Gotarredona, T.; Linares-Barranco, B."Spike-based convolutional network for real-time processing". En: 2010 20th International Conference on Pattern Recognition. pp. 3085 - 3088. IEEE, 2010. Available on-line at: <https://doi.org/10.1109/ICPR.2010.756>.
DOI: 10.1109/ICPR.2010.756
Handle: 11441/102359
Código Scopus: 78149477279

18 **Title of the work:** Perceptually adapted color-texture image segmentation algorithm based on K-dimensional multi-step region growing
Type of event: Conference
Fondón, Irene; Serrano, Carmen; Acha, Begoña. "Perceptually adapted color-texture image segmentation algorithm based on K-dimensional multi-step region growing". En: 5th European Conference on Colour in Graphics, Imaging, and Vision and 12th International Symposium on Multispectral Colour Science 2010, CGIV 2010/MCS'10. pp. 267 - 274. 2010. ISBN 9781617388897
Código Scopus: 78649347346

19 **Title of the work:** Scale invariant descriptors in pattern analysis of melanocytic lesions
Type of event: Conference
Mendoza, Carlos S.; Serrano, Carmen; Acha, Begoña. "Scale invariant descriptors in pattern analysis of melanocytic lesions". En: 2009 16TH IEEE INTERNATIONAL CONFERENCE ON IMAGE PROCESSING, VOLS 1-6. pp. 4193 - 4196. IEEE, 2009. Available on-line at: <https://doi.org/10.1109/ICIP.2009.5414525>. ISBN 978-1-4244-5653-6
DOI: 10.1109/ICIP.2009.5414525
Código WOS: WOS:000280464301492
Código Scopus: 77951951128

20 **Title of the work:** Event based vision sensing and processing
Type of event: Conference
Pérez-Carrasco, J. A.; Serrano, C.; Acha, B.; Serrano-Gotarredona, T.; Linares-Barranco, B."Event based vision sensing and processing". En: 2008 15TH IEEE INTERNATIONAL CONFERENCE ON IMAGE PROCESSING, VOLS 1-5. pp. 1392 - 1395. IEEE, 2008. Available on-line at: <https://doi.org/10.1109/ICIP.2008.4712024>. ISBN 978-1-4244-1765-0
DOI: 10.1109/ICIP.2008.4712024
Handle: 11441/102106
Código WOS: WOS:000265921400349
Código Scopus: 69949129451

21 **Title of the work:** Segmentation of skin cancer images based on multistep region growing
Type of event: Conference
Fondón, Irene; Serrano, Carmen; Acha, Begoña. "Segmentation of skin cancer images based on multistep region growing". En: Proceedings of IAPR Conference on Machine Vision Applications, MVA 2007. pp. 339 - 342. 2007. ISBN 9784901122078
Código Scopus: 69949126344

22 **Title of the work:** Color and texture based segmentation algorithm for multicolor textured images
Type of event: Conference
Fondón, Ireñe; Serrano, Carmen; Acha, Begofia. "Color and texture based segmentation algorithm for multicolor textured images". En: VISAPP 2007 - 2nd International Conference on Computer Vision Theory and Applications, Proceedings. IFP - IA/-, pp. 258 - 263. 2007.
Código Scopus: 67650215461

23 **Title of the work:** Colour image sementation based on multitolerance region growing
Type of event: Conference
Fondón, Irene; Serrano, Carmen; Acha, Begoña. "Colour image sementation based on multitolerance region growing". En: PROCEEDINGS OF THE FOURTH IASTED INTERNATIONAL CONFERENCE ON VISUALIZATION, IMAGING, AND IMAGE PROCESSING. pp. 453 - 458. ACTA Press, 2004. ISBN 0-88986-454-3
Código WOS: WOS:000228556600079
Código Scopus: 11144302006

24 **Title of the work:** Segmentation and classification of burn color images
Type of event: Conference
Corresponding author: Yes
Acha, B; Serrano, C; Roa, L. "Segmentation and classification of burn color images". En: PROCEEDINGS OF THE 23RD ANNUAL INTERNATIONAL CONFERENCE OF THE IEEE ENGINEERING IN MEDICINE AND BIOLOGY SOCIETY, VOLS 1-4. 3, pp. 2692 - 2695. IEEE, 2001. Available on-line at: <https://doi.org/10.1109/IEMBS.2001.1017338>. ISBN 0-7803-7211-5
DOI: 10.1109/IEMBS.2001.1017338
Código WOS: WOS:000178871900732
Código Scopus: 0035782017

25 **Title of the work:** Segmentation-based lossless compression for color images
Type of event: Conference
Serrano, Carmen; Acha, Begoña; Rangayyan, Rangaraj M."Segmentation-based lossless compression for color images". En: Proceedings - International Conference on Image Analysis and Processing, ICIAP 1999. pp. 90 - 94. 1999. Available on-line at: <https://doi.org/10.1109/ICIAP.1999.797576>. ISBN 0769500404, ISBN 9780769500409
DOI: 10.1109/ICIAP.1999.797576
Código Scopus: 84875605100

26 **Title of the work:** Evaluation of a telemedicine platform in a burn unit
Type of event: Conference
Smano, C.; Roa, L.; Acha, B."Evaluation of a telemedicine platform in a burn unit". En: ITAB 98: 1998 IEEE INTERNATIONAL CONFERENCE ON INFORMATION TECHNOLOGY APPLICATIONS IN BIOMEDICINE. pp. 121 - 126. IEEE, 1998. Available on-line at: <https://doi.org/10.1109/ITAB.1998.674690>. ISBN 0-7803-4973-3
DOI: 10.1109/ITAB.1998.674690
Código WOS: WOS:000074369100027
Código Scopus: 0001422950

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

1 **Title of the work:** Multi-label segmentation of bone, muscle and fat in CT volumes via convex relaxation
Pérez-Carrasco, J. A.; Acha, B.; Serrano, C.. "Multi-label segmentation of bone, muscle and fat in CT volumes via convex relaxation". En: Progress in Biomedical Optics and Imaging - Proceedings of SPIE. 11313. 2020, Available on-line at: <https://doi.org/10.1117/12.2548077>. ISSN 1605-7422
DOI: 10.1117/12.2548077
Código WOS: WOS:000672558500102
Código Scopus: 85092560676

2 **Title of the work:** Dermoscopic Image Segmentation: A Comparison of Methodologies
Vélez Núñez, Paulina; Serrano, Carmen; Acha, Begoña; Pérez-Carrasco, José Antonio. "Dermoscopic Image Segmentation: A Comparison of Methodologies". En: IFMBE Proceedings. 76. SPRINGER, 2020, pp. 421 - 426. Available on-line at: <https://doi.org/10.1007/978-3-030-31635-8_51>. ISSN 1680-0737, ISSN 1433-9277
DOI: 10.1007/978-3-030-31635-8_51
Código WOS: WOS:000582693600051
Código Scopus: 85075898259

3 **Title of the work:** Automatic Segmentation of Bone and Muscle Structures in CT Volumes Using Convex Relaxation and Fine-Tuning
Pérez-Carrasco, José Antonio; Serrano, Carmen; Acha, Begoña. "Automatic Segmentation of Bone and Muscle Structures in CT Volumes Using Convex Relaxation and Fine-Tuning". En: IFMBE Proceedings. 76. SPRINGER, 2020, pp. 397 - 404. Available on-line at: <https://doi.org/10.1007/978-3-030-31635-8_48>. ISSN 1680-0737, ISSN 1433-9277
DOI: 10.1007/978-3-030-31635-8_48
Código WOS: WOS:000582693600048
Código Scopus: 85075871003

4 **Title of the work:** Automatic Detection of Globules, Streaks and Pigment Network Based on Texture and Color Analysis in Dermoscopic Images
Jiménez, Amaya; Serrano, Carmen; Acha, Begoña. "Automatic Detection of Globules, Streaks and Pigment Network Based on Texture and Color Analysis in Dermoscopic Images". En: IMAGE ANALYSIS AND RECOGNITION, ICIAR 2017. 10317. SPRINGER, 2017, pp. 486 - 493. Available on-line at: <https://doi.org/10.1007/978-3-319-59876-5_54>. ISBN 978-3-319-59875-8, ISBN 978-3-319-59876-5
DOI: 10.1007/978-3-319-59876-5_54
Código WOS: WOS:000432877600054
Código Scopus: 85022218663

5 **Title of the work:** Automatic Landmarks Detection in Breast Reconstruction Aesthetic Assessment
Núñez-Benjumea, Francisco J.; Serrano, Carmen; Acha, Begoña. "Automatic Landmarks Detection in Breast Reconstruction Aesthetic Assessment". En: DIGITAL HEALTHCARE EMPOWERING EUROPEANS. 210. IOS Press, 2015, pp. 399 - 403. Available on-line at: <https://doi.org/10.3233/978-1-61499-512-8-399>. ISBN 978-1-61499-511-1, ISBN 978-1-61499-512-8
DOI: 10.3233/978-1-61499-512-8-399
Handle: 11441/128792
PMID: 25991174
Código WOS: WOS:000455817000082
Código Scopus: 84937414792

6 **Title of the work:** Quantifiable diagnosis of neuromuscular diseases through network analysis
Rivas, E; Saez, A; Montero-Sanchez, A; Paradas, C; Acha, B; Pascual, A; Serrano, C; Escudero, L. "Quantifiable diagnosis of neuromuscular diseases through network analysis". En: NEUROMUSCULAR DISORDERS. 25. PERGAMON-ELSEVIER SCIENCE LTD, 2015, pp. S243 - S243. Available on-line at: <https://doi.org/10.1016/j.nmd.2015.06.211>. ISSN 0960-8966, ISSN 1873-2364
DOI: 10.1016/j.nmd.2015.06.211
Código WOS: WOS:000362925400207

7 **Title of the work:** Segmentation of Bone Structures in 3D CT Images Based on Continuous Max-flow Optimization
Pérez-Carrasco, J. A.; Acha-Piñero, B.; Serrano, C.. "Segmentation of Bone Structures in 3D CT Images Based on Continuous Max-flow Optimization". En: MEDICAL IMAGING 2015: IMAGE PROCESSING. 9413.

SPIE-INT SOC OPTICAL ENGINEERING, 2015, Available on-line at: <https://doi.org/10.1117/12.2082139>. ISBN 978-1-62841-503-2
DOI: 10.1117/12.2082139
Handle: 11441/81749
Código WOS: WOS:000355653800137
Código Scopus: 84943380691

8 **Title of the work:** Automatic burn depth estimation from psychophysical experiment data
Acha, Begoña; Gómez-Cía, Tomás; Fondón, Irene; Serrano, Carmen. "Automatic burn depth estimation from psychophysical experiment data". En: IFMBE Proceedings. 41. SPRINGER, 2014, pp. 356 - 359. Available on-line at: <https://doi.org/10.1007/978-3-319-00846-2_88>. ISSN 1680-0737, ISSN 1433-9277
DOI: 10.1007/978-3-319-00846-2_88
Código Scopus: 84891338985

9 **Title of the work:** Statistical-Based Segmentation of Bone Structures via Continuous Max-Flow Optimization
Carrasco, Jose Antonio Pérez; Serrano-Gotarredona, Carmen; Suárez-Mejías, Cristina; Acha-Piñero, Begoña. "Statistical-Based Segmentation of Bone Structures via Continuous Max-Flow Optimization". En: IMAGE ANALYSIS AND RECOGNITION, ICIAR 2014, PT II. 8815. SPRINGER, 2014, pp. 201 - 208. Available on-line at: <https://doi.org/10.1007/978-3-319-11755-3_23>. ISBN 978-3-319-11754-6, ISBN 978-3-319-11755-3
DOI: 10.1007/978-3-319-11755-3_23
Código WOS: WOS:000345576900023
Código Scopus: 84908662098

10 **Title of the work:** Segmentation of retroperitoneal tumors using fast continuous max-flow algorithm
Pérez-Carrasco, J. A.; Suárez-Mejías, C.; Serrano, C.; López-Guerra, J. L.; Acha, B.. "Segmentation of retroperitoneal tumors using fast continuous max-flow algorithm". En: IFMBE Proceedings. 41. SPRINGER, 2014, pp. 360 - 363. Available on-line at: <https://doi.org/10.1007/978-3-319-00846-2_89>. ISSN 1680-0737, ISSN 1433-9277
DOI: 10.1007/978-3-319-00846-2_89
Código Scopus: 84891302999

11 **Title of the work:** Reflectance-Based Segmentation Using Photometric and Illumination Invariants
Pérez-Carrasco, Jose Antonio; Acha-Piñero, Begoña; Serrano-Gotarredona, Carmen; Gevers, Theo. "Reflectance-Based Segmentation Using Photometric and Illumination Invariants". En: IMAGE ANALYSIS AND RECOGNITION, ICIAR 2014, PT I. 8814. SPRINGER, 2014, pp. 179 - 186. Available on-line at: <https://doi.org/10.1007/978-3-319-11758-4_20>. ISBN 978-3-319-11757-7, ISBN 978-3-319-11758-4
DOI: 10.1007/978-3-319-11758-4_20
Código WOS: WOS:000345583300020
Código Scopus: 84908672714

12 **Title of the work:** A comparative study of different methods for pigmented lesion classification based on color and texture features
Pérez-Carrasco, J. A.; Acha, B.; Serrano, C.. "A comparative study of different methods for pigmented lesion classification based on color and texture features". En: IFMBE Proceedings. 41. SPRINGER, 2014, pp. 352 - 355. Available on-line at: <https://doi.org/10.1007/978-3-319-00846-2_87>. ISSN 1680-0737, ISSN 1433-9277
DOI: 10.1007/978-3-319-00846-2_87
Código Scopus: 84891342075

13 **Title of the work:** Emphysema quantification in a multi-scanner HRCT cohort using local intensity distributions

Mendoza, CS; Washko, GR; Ross, JC; Diaz, AA; Lynch, DA; Crapo, JD; Silverman, EK; Acha, B; Serrano, C; Estepar, RSJ. "Emphysema quantification in a multi-scanner HRCT cohort using local intensity distributions". En: 2012 9TH IEEE INTERNATIONAL SYMPOSIUM ON BIOMEDICAL IMAGING (ISBI). IEEE, 2012, pp. 474 - 477. Available on-line at: <https://doi.org/10.1109/ISBI.2012.6235587>. ISBN 978-1-4577-1858-8

DOI: 10.1109/ISBI.2012.6235587

Código WOS: WOS:000312384100119

Código Scopus: 84864844201

14 **Title of the work:** Automatic Cup-to-Disc Ratio Estimation Using Active Contours and Color Clustering in Fundus Images for Glaucoma Diagnosis

Fondon, I; Nunez, F; Tirado, M; Jimenez, S; Alemany, P; Abbas, Q; Serrano, C; Acha, B. "Automatic Cup-to-Disc Ratio Estimation Using Active Contours and Color Clustering in Fundus Images for Glaucoma Diagnosis". En: IMAGE ANALYSIS AND RECOGNITION, PT II. 7325 - Part. 2. SPRINGER, 2012, pp. 390 - 399. Available on-line at: <https://doi.org/10.1007/978-3-642-31298-4_46>. ISBN 978-3-642-31298-4

DOI: 10.1007/978-3-642-31298-4_46

Código WOS: WOS:000323559300046

Código Scopus: 84864153753

15 **Title of the work:** Segmentation of muscle fibres in fluorescence microscopy images

Sáez, Aurora; Montero-Sánchez, Adoración; Escudero, Luis M.; Acha, Begoña; Serrano, Carmen. "Segmentation of muscle fibres in fluorescence microscopy images". En: IMAGE ANALYSIS AND RECOGNITION, PT II. 7325 - PART 2. SPRINGER, 2012, pp. 465 - 472. Available on-line at: <https://doi.org/10.1007/978-3-642-31298-4_55>. ISBN 978-3-642-31298-4

DOI: 10.1007/978-3-642-31298-4_55

Código WOS: WOS:000323559300055

Código Scopus: 84864127488

16 **Title of the work:** Segmentation and classification of dermatological lesions

Saéz, Aurora; Acha, Begonã; Serrano, Carmen. "Segmentation and classification of dermatological lesions". En: MEDICAL IMAGING 2010: COMPUTER - AIDED DIAGNOSIS. 7624. SPIE-INT SOC OPTICAL ENGINEERING, 2010, Available on-line at: <https://doi.org/10.1117/12.844323>. ISBN 978-0-8194-8025-5

DOI: 10.1117/12.844323

Código WOS: WOS:000284752400119

Código Scopus: 84956861732

17 **Title of the work:** Self-assessed Contrast-Maximizing Adaptive Region Growing

Mendoza, CS; Acha, B; Serrano, C; Gomez-Cia, T. "Self-assessed Contrast-Maximizing Adaptive Region Growing". En: ADVANCED CONCEPTS FOR INTELLIGENT VISION SYSTEMS, PROCEEDINGS. 5807. SPRINGER, 2009, pp. 652 - 663. Available on-line at: <https://doi.org/10.1007/978-3-642-04697-1_61>. ISBN 978-3-642-04696-4

DOI: 10.1007/978-3-642-04697-1_61

Handle: 11441/128505

Código WOS: WOS:000279102300061

Código Scopus: 70549093170

18 **Title of the work:** Advanced Vision Processing Systems: Spike-Based Simulation and Processing

Perez-Carrasco, José Antonio; Serrano-Gotarredona, Carmen; Acha-Piñero, Begoña; Serrano-Gotarredona, Teresa; Linares-Barranco, Bernabé. "Advanced Vision Processing Systems: Spike-Based Simulation and Processing". En: ADVANCED CONCEPTS FOR INTELLIGENT VISION SYSTEMS, PROCEEDINGS. 5807.

SPRINGER, 2009, pp. 640 - 651. Available on-line at: <https://doi.org/10.1007/978-3-642-04697-1_60>. ISBN 978-3-642-04696-4
DOI: 10.1007/978-3-642-04697-1_60
Handle: 11441/101829
Código WOS: WOS:000279102300060
Código Scopus: 70549100113

19 **Title of the work:** Pattern Analysis of Dermoscopic Images Based on FSCM Color Markov Random Fields
Mendoza, CS; Serrano, C; Acha, B. "Pattern Analysis of Dermoscopic Images Based on FSCM Color Markov Random Fields". En: ADVANCED CONCEPTS FOR INTELLIGENT VISION SYSTEMS, PROCEEDINGS. 5807. SPRINGER, 2009, pp. 676 - 685. Available on-line at: <https://doi.org/10.1007/978-3-642-04697-1_63>. ISBN 978-3-642-04696-4
DOI: 10.1007/978-3-642-04697-1_63
Código WOS: WOS:000279102300063
Código Scopus: 70549094327

20 **Title of the work:** High-speed character recognition system based on a complex hierarchical AER architecture
Pérez-Carrasco, J. A.; Serrano-Gotarredona, T.; Serrano-Gotarredona, C.; Acha, B.; Linares-Barranco, B.. "High-speed character recognition system based on a complex hierarchical AER architecture". En: PROCEEDINGS OF 2008 IEEE INTERNATIONAL SYMPOSIUM ON CIRCUITS AND SYSTEMS, VOLS 1-10. IEEE, 2008, pp. 2150 - 2153. Available on-line at: <https://doi.org/10.1109/ISCAS.2008.4541876>. ISBN 978-1-4244-2078-0
DOI: 10.1109/ISCAS.2008.4541876
Handle: 11441/102134
Código WOS: WOS:000258532101269
Código Scopus: 51749106112

21 **Title of the work:** New characteristics for the classification of burns: Experimental study
Fondon, I; Acha, B; Serrano, C; Sosa, M. "New characteristics for the classification of burns: Experimental study". En: IMAGE ANALYSIS AND RECOGNITION, PT 2. 4142. SPRINGER, 2006, pp. 502 - 512. Available on-line at: <https://doi.org/10.1007/11867661_45>. ISBN 3-540-44894-2
DOI: 10.1007/11867661_45
Código WOS: WOS:000241553600045
Código Scopus: 33749650391

22 **Title of the work:** Classification of burn wounds using support vector machines
Acha, Begoña; Serrano, Carmen; Palencia, Sergio; Murillo, Juan José. "Classification of burn wounds using support vector machines". En: MEDICAL IMAGING 2004: IMAGE PROCESSING, PTS 1-3. 5370. SPIE-INT SOC OPTICAL ENGINEERING, 2004, pp. 1018 - 1025. Available on-line at: <https://doi.org/10.1117/12.535491>. ISBN 0-8194-5283-1
DOI: 10.1117/12.535491
Código WOS: WOS:000222378600112
Código Scopus: 5644224479

23 **Title of the work:** 2D adaptive filtering and region growing algorithm for the detection of microaneurysms in retinal angiograms
Serrano, Carmen; Acha, Begoña; Revuelto, Sergio. "2D adaptive filtering and region growing algorithm for the detection of microaneurysms in retinal angiograms". En: MEDICAL IMAGING 2004: IMAGE PROCESSING, PTS 1-3. 5370. SPIE-INT SOC OPTICAL ENGINEERING, 2004, pp. 1924 - 1931. Available on-line at: <https://doi.org/10.1117/12.535118>. ISBN 0-8194-5283-1
DOI: 10.1117/12.535118
Código WOS: WOS:000222378600210

Código Scopus: 5644294411

24 **Title of the work:** Segmentation of burn images based on color and texture information

Serrano, Carmen; Acha, Begoña; Acha, José I.. "Segmentation of burn images based on color and texture information". En: MEDICAL IMAGING 2003: IMAGE PROCESSING, PTS 1-3. 5032. SPIE-INT SOC OPTICAL ENGINEERING, 2003, pp. 1543 - 1550. Available on-line at: <https://doi.org/10.1117/12.481357>. ISBN 0-8194-4833-8

DOI: 10.1117/12.481357

Código WOS: WOS:000183561900233

Código Scopus: 0041920694

25 **Title of the work:** Automatic detection of microaneurysms in retinal angiograms

Corresponding author: Yes

Acha, B; Serrano, C. "Automatic detection of microaneurysms in retinal angiograms". En: CARS 2003: COMPUTER ASSISTED RADIOLOGY AND SURGERY, PROCEEDINGS. 1256. ELSEVIER SCIENCE BV, 2003, pp. 1328 - 1328. Available on-line at: <https://doi.org/10.1016/S0531-5131(03)00474-6>. ISBN 0-444-51387-6

DOI: 10.1016/S0531-5131(03)00474-6

Código WOS: WOS:000185617600237

26 **Title of the work:** Segmentation of burn images using the L(*)u(*)v(*) space and classification of their depths by color and texture information

Acha, Begoña; Serrano, Carmen; Acha, José I.. "Segmentation of burn images using the L(*)u(*)v(*) space and classification of their depths by color and texture information". En: MEDICAL IMAGING 2002: IMAGE PROCESSING, VOL 1-3. 4684. SPIE-INT SOC OPTICAL ENGINEERING, 2002, pp. 1508 - 1515. Available on-line at: <https://doi.org/10.1117/12.467117>. ISBN 0-8194-4429-4

DOI: 10.1117/12.467117

Código WOS: WOS:000177471900161

Código Scopus: 0036031505

27 **Title of the work:** Image classification based on color and texture analysis

Acha, Begoña; Serrano, Carmen. "Image classification based on color and texture analysis". En: IWISPA 2000: PROCEEDINGS OF THE FIRST INTERNATIONAL WORKSHOP ON IMAGE AND SIGNAL PROCESSING AND ANALYSIS. 2000-January. UNIV ZAGREB, FAC FORESTRY, 2000, pp. 95 - 99. Available on-line at: <https://doi.org/10.1109/ISPA.2000.914897>. ISBN 953-96769-2-4

DOI: 10.1109/ISPA.2000.914897

Código WOS: WOS:000169473100013

Código Scopus: 0038166921

28 **Title of the work:** Un algoritmo rápido basado en interpolación para la estimación de frecuencias de cisoides no estacionarias

Begoña Acha Piñero; José Ignacio Acha Catalina. "Un algoritmo rápido basado en interpolación para la estimación de frecuencias de cisoides no estacionarias". En: XIII Simposium Nacional de la Unión Científica Internacional de Radio: Pamplona, 16, 17 y 18 de septiembre de 1998 : libro de actas. Iberdrola Instituto Tecnológico, 1998, pp. 427 - 428. ISBN 84-89654-12-3

Código de Dialnet: ARTLIB 5628891

Fecha del CVA	06/03/2024

Parte A. DATOS PERSONALES

Nombre *	Antonio		
Apellidos *	Artés Rodríguez		
Sexo *	Hombre	Fecha de Nacimiento *	30/03/1963
DNI/NIE/Pasaporte *	75218987V	Teléfono *	(34) 91624 - 8741
URL Web			
Dirección Email	antonio@tsc.uc3m.es		
Identificador científico	Open Researcher and Contributor ID (ORCID) *	0000-0001-6540-7109	
	Researcher ID	E-4842-2018	
	Scopus Author ID	6603954601	

* Obligatorio

A.1. Situación profesional actual

Puesto	Full Professor		
Fecha inicio	2002		
Organismo / Institución	Universidad Carlos III de Madrid		
Departamento / Centro	Signal Theory and Communications / School of Engineering		
País		Teléfono	
Palabras clave			

A.2. Situación profesional anterior

Periodo	Puesto / Institución / País
2000 - 2002	Associate Professor / Universidad Carlos III de Madrid
2000 - 2002	Associate Professor / Universidad de Alcalá
1994 - 2000	Associate Professor / Universidad Politécnica de Madrid
1993 - 1994	Associate Professor / Universidade de Vigo
1988 - 1993	Assistant / Universidade de Vigo

A.3. Formación académica

Grado/Master/Tesis	Universidad / País	Año
PhD Telecommunications Engineer	Escuela Técnica Superior de Ingenieros de Telecomunicación	1992
Telecommunications Engineer	Escuela Técnica Superior de Ingenieros de Telecomunicación	1988

A.4. Indicadores generales de calidad de la producción científica

Research assessment (sexenio): 6. Date of the last granted research assessment: 12/06/2020
PhD theses supervised in the last 10 years: 14
Total citations: 3.717
Average citations per year over the last 5 years: 274
h-index: 32
(Source: Google Scholar)

Parte B. RESUMEN LIBRE DEL CURRÍCULUM

Antonio Artés Rodríguez has been full professor in the Department of Signal Theory and Communications at the Carlos III University of Madrid since 2002. He has previously held different teaching positions at the University of Vigo, the Polytechnic University of Madrid, and the University of Alcala. He has also been a visiting professor at McMaster University (1997), Cornell University (2003), and the University of Cambridge (2013-14). He has participated in

39 research projects and 70 consulting projects, in most of them as principal investigator. He has co-authored 91 journal articles, has made more than 130 contributions at international conferences, and has supervised 24 doctoral theses.

He is currently in charge of the Signal Treatment Research Group (GTS) of the Carlos III University of Madrid, also belonging to the Foundation for Biomedical Research of the Gregorio Marañón Hospital; in recent years the GTS Group has specialized in signal processing techniques, machine learning and information theory. The algorithms, methods and results developed within these lines of research have been applied in the fields of health, communications and transport and mobility.

- CIBERSAM researcher
- Member of ELLIS and ELLIS Unit Madrid

Parte C. MÉRITOS MÁS RELEVANTES

C.1. Publicaciones

AC: Autor de correspondencia; (nº x / nº y): posición firma solicitante / total autores. Si aplica, indique el número de citaciones

1 **Artículo científico**. S{\"u}kei, Emeseand Romero-Medrano; Lorenaand de Leon Martinez, Santiagoand Herrera L{\'o}pez; Jes{\'u}sand Campa{ñ}a Montes, Juan Jos{\'e}and Olmos; Pablo Mand Baca Garcia, Enriqueand Art{\'e}s. 2023. Continuous Assessment of Function and Disability via Mobile Sensing: Real-World Data-Driven Feasibility Study. JMIR Form Res. 7, pp.e47167-e47167. ISSN 2561-326X.

2 **Artículo científico**. Barrigon, Maria Luisaand Romero-Medrano; Lorenaand Moreno Mu{ñ}oz, Pabloand Porras-Segovia; Alejandroand Lopez Castroman, Jorgeand Courtet; Philippeand Art{\'e}s Rodr{\'i}guez, Antonioand Baca-Garcia. 2023. One-Week Suicide Risk Prediction Using Real-Time Smartphone Monitoring: Prospective Cohort Study. J Med Internet Res. 25, pp.e43719-e43719. ISSN 1438-8871. https://doi.org/10.2196/43719

3 **Artículo científico**. Pablo Bonilla Escribano; David Ramírez García; Enrique Baca García; Philippe Courtet; (5/6) Antonio Artés Rodríguez; Jorge López Castroman. 2023. Multidimensional variability in ecological assessments predicts two clusters of suicidal patients. Scientific reports. 13-3546. https://doi.org/10.1038/s41598-023-30085-1

4 **Artículo científico**. Emese Sukei; Santiago de Leon Martínez; Pablo Martínez Olmos; (4/4) Antonio Artés Rodríguez. 2023. Automatic patient functionality assessment from multimodal data using deep learning techniques – Development and feasibility evaluation. Internet Interventions. 33-100657. https://doi.org/10.1016/j.invent.2023.100657

5 **Artículo científico**. Romero-Medrano, Lorena; (2/2) Artés-Rodríguez, Antonio. 2023. Multi-Source Change-Point Detection over Local Observation Models. Pattern Recognition. Elsevier. 134, pp.109116-109116. https://doi.org/10.1016/j.patcog.2022.109116

6 **Artículo científico**. Cobo Aguilera, Aurora; Olmos, Pablo M.; (3/4) Artés-Rodríguez, Antonio; Pérez-Cruz, Fernando. 2023. Regularizing transformers with deep probabilistic layers. Neural Networks. ISSN 0893-6080. https://doi.org/10.1016/j.neunet.2023.01.032

7 **Artículo científico**. Porras-Segovia, Alejandro; Maria {De Granda-Beltrán}, Ana; Gallardo, Claudia; et al; Baca-García, Enrique. 2023. Smartphone-based safety plan for suicidal crisis: The SmartCrisis 2.0 pilot study. Journal of Psychiatric Research. ISSN 0022-3956.

8 **Artículo científico**. 2023. Text mining methods for the characterisation of suicidal thoughts and behaviour. Psychiatry Research. 322-115090. https://doi.org/10.1016/j.psychres.2023.115090

9 **Artículo científico**. Peis, Ignacio; M Olmos, Pablo; (3/3) Artés-Rodríguez, Antonio. 2023. Unsupervised learning of global factors in deep generative models. Pattern Recognition. Elsevier. 134, pp.109130-109130. https://doi.org/10.1016/j.patcog.2022.109130

10 **Artículo científico**. Moreno-Pino, Fernando; M Olmos, Pablo; (3/3) Artés-Rodríguez, Antonio. 2022. Deep Autoregressive Models with Spectral Attention. Pattern Recognition. pp.109014-109014. ISSN 0031-3203. https://doi.org/10.1016/j.patcog.2022.109014

11 **Artículo científico**. Barrejón, Daniel; M Olmos, Pablo; (3/3) Artés-Rodríguez, Antonio. 2022. Medical Data Wrangling With Sequential Variational Autoencoders. IEEE Journal of Biomedical and Health Informatics. 26-6, pp.2737-2745. https://doi.org/10.1109/JBHI.2021.3123839

12 **Artículo científico**. Romero-Medrano, Lorena; Moreno-Muñoz, P; (3/3) Artés-Rodríguez, Antonio. 2022. Multinomial Sampling of Latent Variables for Hierarchical Change-Point Detection. Journal of Signal Processing Systems. Springer. 94-2, pp.215-227. https://doi.org/10.1007/s11265-021-01705-8

13 **Artículo científico**. Porras-Segovia, Alejandro; Díaz-Oliván, Isaac; Luisa Barrigón, Maria; Moreno, Manon; (5/7) Artés-Rodríguez, Antonio; M Perez-Rodriguez, Mercedes; Baca-García, Enrique. 2022. Real-world feasibility and acceptability of real-time suicide risk monitoring via smartphones: A 6-month follow-up cohort. Journal of Psychiatric Research. 149, pp.145-154. ISSN 0022-3956. https://doi.org/10.1016/j.jpsychires.2022.02.026

14 **Artículo científico**. Porras-Segovia, Alejandro; Moreno, Manon; Luisa Barrigón, María; López Castroman, Jorge; Courtet, Philippe; Berrouiguet, Sofian; (7/8) Artés-Rodríguez, Antonio; Baca-García, Enrique. 2022. Six-month clinical and ecological momentary assessment follow-up of patients at high risk of suicide: a survival analysis. The Journal of Clinical Psychiatry. Physicians Postgraduate Press, Inc.. 84-1, pp.44594-44594. https://doi.org/10.4088/JCP.22m14411

15 **Artículo científico**. Escudero-Vilaplana, Vicente; Romero-Medrano, Lorena; Villanueva-Bueno, Cristina; et al; (15/15) Artés-Rodríguez, Antonio. 2022. Smartphone-Based Ecological Momentary Assessment for the Measurement of the Performance Status and Health-Related Quality of Life in Cancer Patients Under Systemic Anticancer Therapies: Development and Acceptability of a Mobile App. Frontiers in oncology. 12, pp.880430-880430. ISSN 2234-943X. https://doi.org/10.3389/fonc.2022.880430

16 **Artículo científico**. Luisa Barrigon, Maria; Porras-Segovia, Alejandro; Courtet, Philippe; Lopez-Castroman, Jorge; Berrouiguet, Sofian; Pérez-Rodríguez, María-Mercedes; (7/8) Artés-Rodríguez, Antonio; Baca-Garcia, Enrique. 2022. Smartphone-based Ecological Momentary Intervention for secondary prevention of suicidal thoughts and behaviour: protocol for the SmartCrisis V. 2.0 randomised clinical trial. BMJ open. British Medical Journal Publishing Group. 12-9, pp.e051807-e051807. https://doi.org/10.1136/bmjopen-2021-051807

17 **Artículo científico**. de León, Santiago; Ruiz, Marta; Parra-Vargas, Elena; et al; Luisa Barrigon, Maria; (7/10) Artés-Rodríguez, Antonio. 2022. Virtual reality and speech analysis for the assessment of impulsivity and decision-making: protocol for a comparison with neuropsychological tasks and self-administered questionnaires. BMJ Open. British Medical Journal Publishing Group. 12-7. ISSN 2044-6055. https://doi.org/10.1136/bmjopen-2021-058486

18 **Artículo científico**. Bonilla-Escribano, P; Ramírez, David; Porras-Segovia, Alejandro; (4/4) Artés-Rodríguez, Antonio. 2021. Assessment of variability in irregularly sampled time series: Applications to mental healthcare. Mathematics (Special issue on Recent Advances in {D}ata Science). 9-1. ISSN 2227-7390. https://doi.org/10.3390/math9010071

19 **Artículo científico**. Moreno-Muñóz, P; Ramírez, David; (3/3) Artés-Rodríguez, Antonio. 2021. Change-point detection in hierarchical circadian models. Pattern Recognition. 113, pp.107820-107820. ISSN 0031-3203. https://doi.org/10.1016/j.patcog.2021.107820

20 **Artículo científico**. Porras-Segovia, Alejandro; Cobo, Aurora; Díaz-Oliván, Isaac; et al; Baca-García, Enrique; (4/10) Artés-Rodríguez, Antonio. 2021. Disturbed sleep as a clinical marker of wish to die: A smartphone monitoring study over three months of observation. Journal of Affective Disorders. ISSN 0165-0327. https://doi.org/10.1016/j.jad.2021.02.059

21 **Artículo científico**. Cobo, Aurora; Porras-Segovia, Alejandro; M Perez-Rodriguez, Mercedes; (4/7) Artés-Rodríguez, Antonio; Luisa Barrigón, Maria; Courtet, Philippe; Baca-García, Enrique. 2021. Patients at high risk of suicide before and during a COVID-19 lockdown: ecological momentary assessment study. BJPsych Open. Cambridge University Press. 7-3, pp.e82-e82. https://doi.org/10.1192/bjo.2021.43

22 **Artículo científico**. Lopez-Morinigo, Javier-David; -E. Maria Luisa, B.; Porras-Segovia, Alejandro; et al; (10/10) Artés-Rodríguez, Antonio. 2021. Pending challenges to e-mental health in the COVID-19 era: Acceptability of a smartphone-based ecological momentary assessment application among patients with schizophrenia spectrum disorders. European Psychiatry. Cambridge University Press. 64-S1, pp.S343\textendashS343-S343\textendashS343. https://doi.org/10.1192/j.eurpsy.2021.920

23 **Artículo científico**. Sükei, Emese; Norbury, Agnes; M Perez-Rodriguez, Mercedes; M Olmos, Pablo; (5/5) Artés-Rodríguez, Antonio. 2021. Predicting Emotional States Using Behavioral Markers Derived From Passively Sensed Data: Data-Driven Machine Learning Approach. JMIR Mhealth Uhealth. 9-3, pp.e24465-e24465. ISSN 2291-5222. https://doi.org/10.2196/24465

24 **Artículo científico**. Lopez-Castroman, Jorge; Abad-Tortosa, Diana; Cobo Aguilera, Aurora; Courtet, Philippe; Luisa Barrigón, Maria; (6/7) Artés-Rodríguez, Antonio; Baca-García, Enrique. 2021. Psychiatric Profiles of eHealth Users Evaluated Using Data Mining Techniques: Cohort Study. JMIR Ment Health. 8-1, pp.e17116-e17116. ISSN 2368-7959. https://doi.org/10.2196/17116

25 **Artículo científico**. Ryu, J.; Sükei, Emese; Norbury, Agnes; H. Liu, S.; José Campaña-Montes, Juan; Baca-García, Enrique; (7/8) Artés-Rodríguez, Antonio; M Perez-Rodriguez, Mercedes. 2021. Shift in Social Media App Usage During COVID-19 Lockdown and Clinical Anxiety Symptoms: Machine Learning--Based Ecological Momentary Assessment Study. JMIR Ment Health. 8-9, pp.e30833-e30833. ISSN 2368-7959. https://doi.org/10.2196/30833

26 **Artículo científico**. Lopez-Morinigo, Javier-David; Luisa Barrigón, María; Porras-Segovia, Alejandro; et al; Baca-García, Enrique; (10/12) Artés-Rodríguez, Antonio. 2021. Use of Ecological Momentary Assessment Through a Passive Smartphone-Based App (eB2) by Patients With Schizophrenia: Acceptability Study. J Med Internet Res. 23-7, pp.e26548-e26548. ISSN 1438-8871. https://doi.org/10.2196/26548

27 **Artículo científico**. Carreras-García, Danae; Delgado-Gómez, David; Baca-García, Enrique; (4/4) Artés-Rodríguez, Antonio. 2020. A Probabilistic Patient Scheduling Model with Time Variable Slots. Computational and Mathematical Methods in Medicine. 2020-9727096, pp.10-10. https://doi.org/10.1155/2020/9727096

28 **Artículo científico**. Peis, Ignacio; López-Moríñigo, Javier-David; M Perez-Rodriguez, Mercedes; Luisa Barrigón, Maria; Ruiz-Gómez, Marta; (6/7) Artés-Rodríguez, Antonio; Baca-García, Enrique. 2020. Actigraphic recording of motor activity in depressed inpatients: a novel computational approach to prediction of clinical course and hospital discharge. Scientific Reports. 10-17286. https://doi.org/10.1038/s41598-020-74425-x

29 **Artículo científico**. Ríos-Muñoz, Gonzalo; (2/4) Artés-Rodríguez, Antonio; Fernández-Avilés, Francisco; Arenal, Ángel. 2020. Real-Time Ventricular Cancellation in Unipolar Atrial Fibrillation Electrograms. Frontiers in Bioengineering and Biotechnology. 8-789. https://doi.org/10.3389/fbioe.2020.00789

30 **Artículo científico**. Porras-Segovia, Alejandro; María Molina-Madueño, Rosa; Berrouiguet, Sofian; et al; Baca-García, Enrique; (11/12) Artés-Rodríguez, Antonio. 2020. Smartphone-based ecological momentary assessment (EMA) in psychiatric patients and student controls: A real-world feasibility study. Journal of Affective Disorders. 274, pp.733-741. https://doi.org/10.1016/j.jad.2020.05.067

31 **Artículo científico**. Norbury, Agnes; Liu, Shelley; José Campaña-Montes, Juan; et al; M Perez-Rodriguez, Mercedes; (7/9) Artés-Rodríguez, Antonio. 2020. Social media and smartphone app use predicts maintenance of physical activity during Covid-19 enforced isolation in psychiatric outpatients. Molecular psychiatry. Nature Publishing Group. pp.1-11. https://doi.org/10.1038/s41380-020-00963-5

32 **Artículo científico**. Lopez-Morinigo, Javier-David; González Ruiz-Ruano, Verónica; Sánchez Escribano Martínez, Adela; et al; Baca-García, Enrique; (8/10) Artés-Rodríguez, Antonio. 2020. Study protocol of a randomised clinical trial testing whether metacognitive training can improve insight and clinical outcomes in schizophrenia. BMC Psychiatry. 20-30. https://doi.org/10.1186/s12888-020-2431-x

33 **Artículo científico**. Bonilla-Escribano, P; Ramírez, David; Sedano-Capdevila, Alba; Jose Campaña-Montes, Juan; Baca-García, Enrique; Courtet, Philippe; (7/7) Artés-Rodríguez, Antonio. 2019. Assessment of e-social activity in psychiatric patients. IEEE J. Biomedical and Health Informatics. 23-6, pp.2247-2256. ISSN 2168-2194. https://doi.org/10.1109/JBHI.2019.2918687

34 **Artículo científico**. Berrouiguet, Sofian; Luisa Barrigón, María; López-Castromán, Jorge; Courtet, Philippe; (5/6) Artés-Rodríguez, Antonio; Baca-García, Enrique. 2019. Combining mobile-health (mHealth) and artificial intelligence (AI) methods to avoid suicide attempts: the Smartcrises study protocol. BMC Psychiatry. 19-277. https://doi.org/10.1186/s12888-019-2260-y

35 **Artículo científico**. Peis, Ignacio; M Olmos, Pablo; Vera-Varela, Constanza; Luisa Barrigón, María; Courtet, Philippe; Baca-García, Enrique; (7/7) Artes-Rodríguez, Antonio. 2019. Deep Sequential Models for Suicidal Ideation From Multiple Source Data. IEEE Journal of Biomedical and Health Informatics. 23-6, pp.2286-2293. https://doi.org/10.1109/JBHI.2019.2919270

36 **Artículo científico**. López-Castromán, Jorge; M Leiva-Murillo, José; Cegla-Schvartzman, Fanny; et al; Baca-García, Enrique; (6/11) Artés-Rodríguez, Antonio. 2019. Onset of schizophrenia diagnoses in a large clinical cohort. Scientific Reports. 9-9865. https://doi.org/10.1038/s41598-019-46109-8

37 2022. Assessing WHODAS 2.0 Scores from Behavioral Biomarkers: a Data-driven Approach (Preprint).

C.2. Congresos

1 Martino, Luca; Elvira, Victor; Miguez, Joaquín; Artés-Rodríguez, Antonio; M Djuric, Petar. A Comparison Of Clipping Strategies For Importance Sampling.

2 Garcia-Moreno, Pablo; Artés-Rodríguez, Antonio; Kai Hansen, Lars. A Hold-out Method to Correct PCA Variance Inflation.

3 Elvira, Víctor; Nazabal, Alfredo; Artés-Rodríguez, Antonio. A Novel Feature Extraction Technique for Human Activity Recognition.

4 Luengo, David; Ríos-Muñoz, Gonzalo; Elvira, Victor; Artés-Rodríguez, Antonio. A hierarchical algorithm for causality discovery among atrial fibrillation electrograms.

5 M Leiva-Murillo, Jose; Artés-Rodríguez, Antonio. Algorithms for Gaussian Bandwidth Selection in Kernel Density Estimators.

6 Vinuelas-Peris, Pablo; Artés-Rodríguez, Antonio. Bayesian Joint Recovery of Correlated Signals in Distributed Compressed Sensing.

7 Ruiz M Hernandez, Pablo; Ríos-Muñoz, Gonzalo; Castellanos, Evaristo; Ávila, Pablo; Atienza, Felipe; Artés-Rodríguez, Antonio; Fernandez-Aviles, Francisco; Arenal, Ángel. Caracterización del sustrato de los sitios de activación rotacional en Fibrilación Auricular Persistente: Análisis en función del ritmo.

8 E Vila-Forcen, J; Artés-Rodríguez, Antonio; Garcia-Frias, J. Compressive Sensing Detection of Stochastic Signals.

9 Moreno-Muñoz, P; Ramírez, David; Artés-Rodríguez, Antonio. Continual learning for infinite hierarchical change-point detection.

10 Luengo, David; Via, Javier; Monzon, Sandra; Trigano, Tom; Artés-Rodríguez, Antonio. Cross-Products LASSO.

C.3. Proyectos y Contratos

1 **Proyecto**. Sistema de atención domiciliaria inteligente e interactivo para la mitigación de la pandemia del COVID-19. Antonio Artés Rodríguez. (Universidad Carlos III de Madrid). 01/02/2020-31/12/2022. 1.678.000 €.

2 **Proyecto**. Machine Learning Frontiers in Precision Medicine (MLFPM). Comisión Europea. Antonio Artés Rodríguez. 01/01/2019-31/12/2022. 229.304,88 €. Investigador principal.

3 **Proyecto**. Aprendizaje máquina y computación masiva para medicina personalizada y análisis cuantitativo del clima. Antonio Artés Rodríguez. (Universidad Carlos III de Madrid). 01/01/2019-30/09/2022. 124.509 €.
4 **Proyecto**. Advanced Bayesian Computation methods for modelling and inference in complex dynamical networks (BAYTREE). Office of Naval Research. Joaquín Míguez Arenas. 01/03/2019-28/02/2022. 212.584 €. Miembro de equipo.
5 **Proyecto**. BAYTREE- Advanced Bayesian computation methods for modelling and inference in complex dynamical networks. (Universidad Carlos III de Madrid). 01/03/2019-28/02/2022. 206.406,06 €.
6 **Proyecto**. Domain alignment and Data Wrangling with Deep Generative Models (Deep-DARWIN). Fundación BBVA. Antonio Artés Rodríguez. 30/04/2019-06/08/2021. 98.900 €. Investigador principal.
7 **Proyecto**. Psiquiatría Computacional y Modelos Integrales de Comportamiento (PRACTICO-CM). Comunidad de Madrid. Antonio Artés Rodríguez. 01/01/2019-30/06/2021. 830.500 €. Coordinador.
8 **Proyecto**. Uncertainty propagation meeting space debris needs (T711-501GR. European Space Agency. Joaquín Míguez Arenas. 04/03/2019-31/03/2021. 299.692 €. Miembro de equipo.
9 **Proyecto**. Integrating longitudinal patient-generated data and multi-omic profiling for comprehensive precision oncology in womens' cancers. Instituto de Salud Carlos III. (Fundación Centro Nacional de Investigaciones Oncologicas). Desde 2023. 2.439.992,5 €.
10 **Contrato**. Asesoría en el área de "Soluciones de tratamiento de señal y aprendizaje automático en el ámbito de la salud" EVIDENCE BASED BEHAVIOR, S.L.. Antonio Artés Rodríguez. Desde 27/06/2022.
11 **Contrato**. Proyecto de desarrollo de las capacidades de medición de competencias de candidatos a través de la Gamificación y la Inteligencia Artificial JOB SEARCH TECHNOLOGIES S.L.. Antonio Artés Rodríguez. 01/01/2020-01/01/2021. 30.000 €.

C.4. Actividades de transferencia y explotación de resultados

1 Gonzalo Ricardo Ríos Muñoz; Antonio Artés Rodríguez; Ángel Arenal Maíz; Francisco Jesús Fernández-Avilés Díaz. P201731161. Sistema y método para la detección automática de patrones electrofisiológicos anómalos 29/09/2017. Universidad Carlos III de Madrid y Fundación para la investigación Biomédica del Hospital Gregorio Marañon.
2 Antonio delPino Juárez; Fidel García Pedraza; Antonio Artés Rodríguez. P9302130. Receptor a ráfagas con demodulación diferencial 28/04/1997. Alcatel SESA.

C.5. Estancias en centros de I+D+i públicos o privados

1 University of Cambridge. 01/08/2013-30/01/2014. Invitado/a.
2 Universidad Federal do Rio de Janeiro. 01/06/2013-31/07/2013. Invitado/a.
3 Technical University of Denmark. 01/04/2013-30/05/2013. Invitado/a.
4 Cornell University. 01/07/2003-30/10/2003. Invitado/a.
5 McMaster University. 01/07/1997-30/09/1997. Invitado/a.

Fecha del CVA	15/11/2021

Parte A. DATOS PERSONALES

Nombre y apellidos	Antonio José Caamaño Fernández		
DNI/NIE/pasaporte	00830413K	Edad	50
Núm. identificación del investigador	Researcher ID	C-8631-2011	
	Código Orcid	0000-0001-6532-5314	

A.1. Situación profesional actual

Organismo	Universidad Rey Juan Carlos			
Dpto./Centro	Escuela Técnica Superior de Ingeniería de Telecomunicación			
Dirección	C/Camino del Molino s/n			
Teléfono	914887248	correo electrónico	antonio.caamano@urjc.es	
Categoría profesional	Catedrático de Universidad		Fecha inicio	26/12/2017
Espec. cód. UNESCO	332505			
Palabras clave	Procesado de Señal en Física Atmosférica, Procesado de Señal en Comunicaciones Inalámbricas, Física de la Materia Condensada			

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

Licenciatura/Grado/Doctorado	Universidad	Año
Licenciado Ciencias Físicas	Universidad Autónoma de Madrid	1995
Doctor Ing. Telecomunicación	Universidad Carlos III de Madrid	2003

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

Número de sexenios de investigación y año del último concedido: 3 sexenios (2016)
Número de tesis doctorales dirigidas en los últimos 10 años: 6
Número de citas totales: 1582 (Scholar), 911 (Scopus), 726 (WoS)
Promedio anual de citas de los últimos 5 años, sin incluir el actual (2016-2020):
130 (Scholar), 80 (Scopus), 72 (WoS)
Publicaciones totales en Q1: 31
Índice h: 18 (Scholar), 16 (Scopus), 14 (WoS)

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

Antonio Caamaño es Licenciado en Física Teórica por la Universidad Autónoma de Madrid (UAM). Realizó trabajos de Investigación en la UAM durante dos años (uno de ellos como becario FPI) antes de realizar su tesis en Ingeniería de Telecomunicación por la Universidad Carlos III de Madrid, (UC3M) desde 1999 a 2003. En los últimos quince años ha estado desempeñando labores docentes e investigadoras en la Universidad Rey Juan Carlos (URJC) con la categoría de Profesor Titular de Universidad y, desde el año 2017, como Catedrático de Universidad.

En el ámbito de la investigación, ha publicado 35 artículos indexados en JCR, 30 de ellos en el primer cuartil de sus categorías del SCI del JCR. De éstos últimos, destacan 6 artículos en revistas que figuran en el primer decil de sus categorías respectivas. Todos estos artículos acumulan 1428 citas (953 en los 5 últimos años) y un índice h de 18 (Google Scholar). En la base de datos de Web of Science aparece con un índice h de 14. Es coautor de tres capítulos de libros científicos que acumulan más de 200 citas. Tiene tres sexenios concedidos (el último en 2016), todos los posibles. Ha codirigido seis tesis doctorales, todas ellas calificadas con Sobresaliente Cum Laude por unanimidad, dos de ellas con Premio Extraordinario y otras dos con Mención Europea. Actualmente se encuentra dirigiendo una tesis doctoral. Es cotitular de dos patentes registradas a nivel nacional (con examen previo), y una a nivel europeo y estadounidense. Se ha dirigido cinco proyectos competitivos de ámbito nacional y participado en más 20 proyectos competitivos de nivel europeo y nacional. Fue beneficiario de una beca Fullbright Scholar en la George Washington University en 2017.

Parte C. MÉRITOS MÁS RELEVANTES *(ordenados por tipología)*

C.1. Publicaciones

S Salcedo-Sanz, M Piles, L Cuadra, C Casanova-Mateo, **AJ Caamaño**, E Cerro-Prada, G Camps-Valls, "Long-term persistence, invariant time scales and on-off intermittency of fog events", in Atmospheric Research, doi: 10.1016/j.atmosres.2021.105456 (2021); IF: 5.369; Revista en el Primer Cuartil (Q1) de la Categoría "Meteorology & Atmospheric Science" (16/94) (JCR 2020) Número de citas: 1

Sara Cornejo-Bueno, David Casillas-Pérez, Laura Cornejo-Bueno, Mihaela I Chidean, **Antonio J Caamaño**, Elena Cerro-Prada, Carlos Casanova-Mateo, Sancho Salcedo-Sanz, Statistical Analysis and Machine Learning Prediction of Fog-Caused Low-Visibility Events at A-8 Motor-Road in Spain, doi: 10.3390/atmos12060679 (2021): IF: 2.686; Revista en el Tercer Cuartil (Q3) de la Categoría "Meteorology & Atmospheric Science" (54/94) (JCR 2020)

G. Pastor, I. Mora-Jimenez, R. Jantti and **A.J. Caamaño**, "Constructing Measures of Sparsity," in IEEE Transactions on Knowledge and Data Engineering, doi: 10.1109/TKDE.2020.3029851 (2020) IF: 4.935; Revista en el Primer Cuartil (Q1) de la Categoría "Electrical and Electronic Engineering" (38/266) (JCR 2019)

Cornejo-Bueno, S.; Chidean, M.I.; **Caamaño, A.J.;** Prieto-Godino, L.; Salcedo-Sanz, S. "A Novel Information Theoretical Criterion for Climate Network Construction". Symmetry (2020), 12, 1500. IF: 2.645; Revista en el Segundo cuartil (Q2) de la Categoría "Multidisciplinary Sciences" (29/71) (JCR 2019).

Cornejo-Bueno, S.; Casillas-Pérez, D.; Cornejo-Bueno, L.; Chidean, M.I.; **Caamaño, A.J.**; Sanz-Justo, J.; Casanova-Mateo, C.; Salcedo-Sanz, S. Persistence Analysis and Prediction of Low-Visibility Events at Valladolid Airport, Spain. Symmetry (2020), 12, 1045. IF: 2.645; Revista en el Segundo cuartil (Q2) de la Categoría "Multidisciplinary Sciences" (29/71) (JCR 2019). Número de citas: 5

Chidean, M.I., Caamaño, A.J., Casanova-Mateo, C. et al. Spatio-temporal climate regionalization using a self-organized clustering approach. Theor Appl Climatol 140, 927–949 (2020). IF: 2.882; Revista en el Segundo cuartil (Q2) de la Categoría "Meteorology & Atmospheric Science" (40/93) (JCR 2019). Número de citas: 1

Mihaela I Chidean, Óscar Barquero-Pérez, Rebeca Goya-Esteban, Alberto Sánchez Sixto, Blanca de la Cruz Torres, Jose Naranjo Orellana, Elena Sarabia Cachadiña, **Antonio J Caamaño**, Full band spectra analysis of gait acceleration signals for peripheral arterial disease patients, (2018) doi: 10.3389/fphys.2018.01061, IF: 4.340; Revista en el Primer cuartil (Q1) de la Categoría "Physiology" (14/81) (JCR Ed. 2020). Número de citas: 3

Mihaela I. Chidean, **Antonio J. Caamaño**, Julio Ramiro-Bargueño, Carlos Casanova-Mateo, Sancho Salcedo-Sanz, "Spatio-temporal Analysis of Wind Resource in the Iberian Peninsula with Data-coupled Clustering", Renewable & Sustainable Energy Reviews, Aceptado (2017). Revista en el Primer cuartil (Q1) de la Categoría "Green & Sustainable Science & Technology" (2/31) (JCR Ed. 2016). Número de citas: 0

Mihaela I. Chidean, Eduardo del Arco, Eduardo Morgado, Julio Ramiro-Bargueño, **Antonio J. Caamaño**, "Ambulatory Gait Measurement System for Natural Environents", IEEE Sensors Journal, V.17, n. 4, pp. 1144-1153, (2017) Revista en el Primer cuartil (Q1) de la Categoría "Instruments & Instrumentation" (12/58) (JCR Ed. 2016). Número de citas: 1

Mihaela I. Chidean, Eduardo Morgado, Margarita Sanromán-Junquera, Julio Ramiro-Bargueño, Javier Ramos, **Antonio J. Caamaño**, "Energy Efficiency and Quality of Data

Reconstruction through Data-Coupled Clustering for Self-Organized Large-Scale WSNs", IEEE Sensors Journal, V.16, n. 12, pp. 5010-5020, (2016)
Revista en el Primer cuartil (Q1) de la Categoría "Instruments & Instrumentation" (12/58) (JCR Ed. 2016). Número de citas: 5

Mihaela Chidean, Eduardo Morgado, Eduardo Del Arco, Julio Ramiro-Bargueno, **Antonio J. Caamano,** "Scalable Data-Coupled Clustering for Large Scale WSN", IEEE Transactions on Wireless Communications, V.14, n. 9, pp. 4681-4694, (Sep. 2015)
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Eduardo del Arco, Eduardo Morgado, Mihaela I Chidean, Julio Ramiro-Bargueno, Inmaculada Mora-Jiménez, **Antonio J Caamano**, "Sparse Vehicular Sensor Networks for Traffic Dynamics Reconstruction", IEEE Transactions on Intelligent Transportation Systems, V.16, n. 5, pp. 2826 - 283, (Oct. 2015)
Revista en el Primer cuartil (Q1) de la Categoría "Engineering, Civil" (8/126) (JCR Ed. 2015)
Número de citas: 1

Mihaela I Chidean, Jesús Muñoz-Bulnes, Julio Ramiro-Bargueño, **Antonio J Caamaño**, Sancho Salcedo-Sanz, "Spatio-temporal trend analysis of air temperature in Europe and Western Asia using data-coupled clustering", Global and Planetary Change, V.129, pp. 45-55, (Jun. 2015)
Revista en el Primer cuartil (Q1) de la Categoría "Geosciences, Multidisciplinary" (22/184) (JCR Ed. 2015) Número de citas: 2

Alfonso Cano, Eduardo Morgado, Javier Ramos, **Antonio J Caamaño**, "Robust differential modulations for asynchronous cooperative systems", Signal Processing, V.105, pp. 30-42, (Dic. 2014)
Revista en el Primer cuartil (Q1) de la Categoría "Engineering, Electrical & Electronic" (49/249) (JCR Ed. 2014). Número de citas: 8

Uéslen Rocha, K Upendra Kumar, Carlos Jacinto, Julio Ramiro, **Antonio J Caamano**, José García Solé, Daniel Jaque, "Nd3+ doped LaF3 nanoparticles as self-monitored photo-thermal agents", Applied Physics Letters, V.104, n. 5, pp. 053703, (Feb. 2014)
Revista en el Primer cuartil (Q1) de la Categoría "Physics, Applied" (21/144) (JCR Ed. 2014)
Número de citas: 51

Carlos Figuera, Óscar Barquero-Pérez, José Luis Rojo-Álvarez, Manel Martínez-Ramón, Alicia Guerrero-Curieses, **Antonio J Caamaño**, "Spectrally adapted Mercer kernels for support vector nonuniform interpolation", Signal Processing, V.94, pp. 421-433, (Ene. 2014)
Revista en el Primer cuartil (Q1) de la Categoría "Engineering, Electrical & Electronic" (49/249) (JCR Ed. 2014)
Número de citas: 9

Laura Martínez Maestro, Enrique Camarillo, José A Sánchez-Gil, Rogelio Rodríguez-Oliveros, J Ramiro-Bargueño, **AJ Caamaño**, Francisco Jaque, José García Solé, Daniel Jaque, "Gold nanorods for optimized photothermal therapy: the influence of irradiating in the first and second biological windows", RSC Advances, V. 4, n. 96, pp. 54122-54129, (Oct. 2014)
Revista en el Primer cuartil (Q1) de la Categoría "Chemistry, Multidisciplinary" (33/157) (JCR Ed. 2014). Número de citas: 10

Laura Martínez Maestro, Patricia Haro-González, Blanca Del Rosal, Julio Ramiro, **AJ Caamano**, Elisa Carrasco, Angeles Juarranz, Francisco Sanz-Rodríguez, José García Solé, Daniel Jaque, "Heating efficiency of multi-walled carbon nanotubes in the first and second biological windows", RSC Advances, V. 4, n. 17, pp. 7882-7889, (Oct. 2014)
Revista en el Primer cuartil (Q1) de la Categoría "Materials Science, Multidisciplinary" (21/260) (JCR Ed. 2014). Número de citas: 24

C.2. Proyectos

(1) Título del proyecto: Medidas de calidad y no intrusivas para la evaluación y optimización energética de edificios con elementos constructivos avanzados (OMEGA-CM)
Referencia: S2013/MAE-2835
Entidad financiadora: Consejería de Educación de la Comunidad de Madrid
Fecha Inicio: 1/10/2014 Fecha Fin: 30/09/2018
Participación: Investigador Principal

(2) Título del proyecto: Procesado digital no lineal y aprendizaje estadístico con núcleos de autocorrelación para aplicaciones en salud (PRINCIPIAS)
Referencia: TEC2013-48439-C4-1-R
Entidad financiadora: Ministerio de Economía y Competitividad
Fecha Inicio: 1/01/2014 Fecha Fin: 31/12/2016
Participación: Investigador Principal

(3) Título del proyecto: Procesado distribuido en redes de sensores inalámbricos: Aplicaciones a monitorización remota de pacientes y a eficiencia energética
Referencia: TEC2009-12098
Entidad financiadora: Ministerio de Economía y Competitividad
Fecha Inicio: 1/01/2010 Fecha Fin: 31/12/2012
Participación: Investigador Principal

C.3. Contratos, méritos tecnológicos o de transferencia

(1) Título del proyecto: Premio Campus de Excelencia Internacional Energía Inteligente URJC-UAH.
Diseño de algoritmos de soft-computing para problemas de predicción de energía eólica, fotovoltaica y mareomotriz por olas
Referencia: 2015/00168/001 (1º accesit CEI-2015)
Entidad financiadora: Universidad Rey Juan Carlos
Fecha Inicio: 30/09/2015 Fecha Fin: 31/12/2016
Participación: Investigador Principal

C.4. Patentes

Título de patente: Uso de una composición que comprende una combinación de nanopartículas fluorescentes
Patente número: 2 684 057
Fecha de publicación: 1 Octubre 2018
Inventores: Moyano Rodríguez, Edelweiss; **Caamaño Fernández, Antonio José**; Ramiro Bargueño, Julio; Rojo Álvarez, Jose Luis; Ramos López, Francisco Javier; De La Peña O'shea, Víctor y Jaque García, Daniel

Título de patente: System and method for reconstructing and viewing cardiac electrical activation
Patente número: US8868171 B2
Fecha de publicación: 21 Octubre 2014
Inventores: Arcadio Garcia Alberola, Juan José Sanchez Muñoz, José Luis Rojo Alvarez, Felipe Alonso Atienza, Jesùs Requena Carrion, Mark Richard Wilby, **Antonio José Caamano Fernandez**, Francisco Javier Ramos López, Miguel Ángel Moscoso Castro, Juan Diego Alvarez Román, Universidad Carlos Iii De Madrid, Fundacion Para La Formacion E Investigacion Sanitarias De La Region De Murcia, Universidad Rey Juan Carlos

CV 2018-2023	Data07/10/2023

Part A. PERSONAL INFORMATION

First Name	Adriana		
Family Name	Dapena Janeiro		
Sex	Female	Date of Birth	16/02/1970
ID number Social Security, Passport			
URL Web			
Email Address	adriana.dapena@udc.es		
Open Researcher and Contributor ID (ORCID)	0000-0001-7362-6854		

A.1. Current position

Job Title	Full professor		
Starting date	2019		
Institution	Universidade da Coruña		
Department / Centre	FACULTAD DE INFORMÁTICA / Computer Engineering		
Country	Spain	Phone Number	981-167000 - 1339
Keywords			

A.3. Education

Degree/Master/PhD	University / Country	Year
Licenciatura en Informática	Universidade da Coruña (UDC)	1995
Diplomatura en Informática	Universidade da Coruña (UDC)	1993
Doctorado en Informática	Universidade da Coruña (UDC)	1999

Part C. RELEVANT ACCOMPLISHMENTS

C.1. Most important publications in national or international peer-reviewed journals, books and conferences

AC: corresponding author. (nº x / nº y): position / total authors. If applicable, indicate the number of citations

1 **Scientific paper**. Adriana Dapena; María J. Souto-Salorio; A. Tarrío. (1/3). 2022. UNA MIRADA A LA GEOMETRÍA EN GALICIA A TRAVÉS DE LA VIDA Y OBRA DE MATEMÁTICOS PIONEROS. Mixba'al Revisa Metropolitana de Matemáticas. 13-1, pp.47-55. ISSN 2007-7866. https://doi.org/10.2427

2 **Scientific paper**. Adriana Dapena (AC); Paula M. Castro; Ana Ares-Pernas. (1/3). 2022. Moving to e-Service Learning in Higher Education. Applied Sciences. MDPI. 12-11, pp.5462-5462. ISSN 2076-3417. https://doi.org/10.3390/app12115462

3 **Scientific paper**. Magdalena Lemanska; María J. Souto-Salorio; Adriana Dapena; Vazquez-Araujo, FJ. (3/4). 2021. Isolation Number versus Domination Number of Trees. Mathematics. MDPI AG. 9, pp.1-10. ISSN 2227-7390. https://doi.org/10.3390/math9121325

4 **Scientific paper**. Francisco Laport; Paula M. Castro; Adriana Dapena; R. Araujo; Óscar Fresnedo. (3/5). 2021. Eye State Identification Based on Discrete Wavelet Transforms. Applied Sciences. MDPI. 11-11, pp.5051-5068. ISSN 2076-3417. https://doi.org/10.3390/app11115051

5 **Scientific paper**. Francisco Laport; Daniel Iglesia; Adriana Dapena; Paula M. Castro; R. Araujo. (3/5). 2021. Proposals and Comparisons from One-Sensor EEG and EOG Human-Machine Interfaces. Sensors. MDPI. 21-6, pp.1-22. ISSN 1424-8220. https://doi.org/10.3390/s21062220

6 **Scientific paper**. Óscar Fresnedo; Francisco Laport; Paula M. Castro; Adriana Dapena. (4/4). 2021. Educational Graphic Tool for Teaching Fundamentals on Digital Image Representation. COMPUTER APPLICATIONS IN ENGINEERING EDUCATION. Wiley. 29-2, pp.1-16. ISSN 1061-3773. https://doi.org/10.1002/cae.22402

7 **Scientific paper**. David Moreno Naya; R. Araujo; Paula M. Castro; Jamile Vivas Costa; Adriana Dapena; Luz González Doniz. (5/6). 2021. Utilization of a Mobile Application for Motor Skill Evaluation in Children. Applied Sciences. MDPI. 11-2, pp.663-674. ISSN 2076-3417. https://doi.org/10.3390/app11020663

8 **Scientific paper**. Paula M. Castro; Ana Ares-Pernas; Adriana Dapena. (3/3). 2020. Service-Learning Projects in University Degrees Based on Sustainable Development Goals: Proposals and Results. SUSTAINABILITY. MDPI AG. 12-19, pp.7940-7962. ISSN 2071-1050. https://doi.org/10.3390/su12197940

9 **Scientific paper**. Francisco Laport; Adriana Dapena; Paula M. Castro; R. Araujo; Daniel Iglesia. (2/5). 2020. A Prototype of EEG System for IoT. International Journal of Neural Systems. World Scientific Publishing. 30-7, pp.1-15. ISSN 0129-0657. https://doi.org/10.1142/S0129065720500185

10 **Scientific paper**. Adriana Dapena; Daniel Iglesia; Francisco Javier Vázquez Araújo; Paula M. Castro. (1/4). 2019. New Computation of Resolving Connected Dominating Sets in Weighted Networks. Entropy. MDPI AG. 21-12, pp.1174-1187. ISSN 1099-4300. https://doi.org/10.3390/e21121174

11 **Scientific paper**. Adriana Dapena; Daniel Iglesia; Paula M. Castro; R. Araujo. (1/4). 2019. Una experiencia de aprendizaje basado en proyectos en Ingeniería Informática. Revista de Investigación Educativa Universitaria (RIEU). Educacuón Editoria. 2-1, pp.45-56. ISSN 2659-3130.

12 **Scientific paper**. Paula M. Castro; Adriana Dapena; María J. Souto-Salorio; Ana D. Tarrío-Tobar. (2/4). 2019. Algorithms for determining relative position between spheroids and hyperboloids with one sheet. MATHEMATICS AND COMPUTERS IN SIMULATION. ELSEVIER. pp.1-12. ISSN 0378-4754. https://doi.org/10.1016/j.matcom.2018.12.006

13 **Scientific paper**. R. Araujo; Adriana Dapena; María J. Souto-Salorio; Paula M. Castro. (2/4). 2018. Calculation of the Connected Dominating Set Considering Vertex Importance Metrics. Entropy. MDPI AG. 20-2. ISSN 1099-4300. https://doi.org/10.3390/e20020087

14 **Scientific paper**. José J. Lamas-Seco; Paula M. Castro; Adriana Dapena; R. Araujo. (3/4). 2017. Multi-Loop Inductive Sensor Model for Vehicle Traffic Applications. SENSORS AND ACTUATORS A-PHYSICAL. ELSEVIER SCIENCE SA. 263, pp.580-592. ISSN 0924-4247. https://doi.org/10.1016/j.sna.2017.06.020

15 **Scientific paper**. Manuel Suárez-Albela; Paula Fraga Lamas; Tiago M. Fernández-Caramés; Adriana Dapena; Miguel González-López. (4/5). 2016. Home Automation System Based on Intelligent Transducer Enablers. Sensors. MDPI. 16-10, pp.1-26. ISSN 1424-8220. https://doi.org/10.3390/s16101595

16 **Scientific paper**. José J. Lamas-Seco; Paula M. Castro; Adriana Dapena; R. Araujo. (3/4). 2016. SiDIVS: Simple Detection of Inductive Vehicle Signatures with a Multiplex Resonant Sensor. Sensors. MDPI. 16-8, pp.1309-1309. ISSN 1424-8220. https://doi.org/10.3390/s16081309

17 **Scientific paper**. Adriana Dapena; R. Araujo; Paula M. Castro; María J. Souto-Salorio. (1/4). 2016. A Framework to Learn Graph Theory using Simple Wireless Network Models. COMPUTER APPLICATIONS IN ENGINEERING EDUCATION. Wiley. 24-6, pp.843-852. ISSN 1061-3773. https://doi.org/10.1002/cae.21753

18 **Scientific paper**. José J. Lamas-Seco; Adriana Dapena; R. Araujo; Paula M. Castro. (2/4). 2016. A Novel Criterion for Vehicle Classification using Inductive Vehicle Signatures. International Journal of Advances in Computer Science & Its Applications. SEEK DIGITAL LIBRARY. 6-1, pp.64-67. ISSN 2250-3765.

19 **Book chapter**. Paula M. Castro; Mercedes Marqués; Adriana Dapena. (3/3). 2023. Science and Technology Teacher Training Project Based on Social Inclusion. Hand on Science. Celebrating Science and Science Education. Hands-on Science Network. pp.225-229. ISBN 978-84-8158-973-3.

20 **Book chapter**. Ana I. Ares Pernas; Adriana Dapena; Paula M. Castro. (2/3). 2021. Herramientas útiles para una experiencia de aprendizaje y servicio virtual. Una nueva forma social de aprendizaje. Contextos universitarios transformadores: a nova normalidade académica. Leccións aprendidas e retos de futuro. V Xornadas de Innovación Docente. Universidade da Coruña. Servizo de publicacións. pp.25-40. ISBN 978-84-9749-818-0. https://doi.org/10.17979/spudc.9788497498180.025

21 **Book chapter**. Paula M. Castro; Adriana Dapena. (2/2). 2020. Teaching Science and Technology through Service Learning Experiences. Hands-on Science. Science Education. Discovering and understanding the wonders of Nature. Hands-on Science Network. pp.183-187. ISBN 978-84-8158-841-5.

22 **Book chapter**. Adriana Dapena; Paula M. Castro; R. Araujo; José J. Lamas-Seco. (1/4). 2020. Informal Learning of Science and Technology from an Inductive Signatures Research Project. Hands-on Science. Science Education. Discovering and understanding the wonders of Nature. Hands-on Science Network. pp.9-12. ISBN978-84-8158-841-5.

23 **Book chapter**. Paula M. Castro; Adriana Dapena; María J. Souto-Salorio; Ana D. Tarrío-Tobar. (2/4). 2017. An Algebraic Collision Avoidance Approach for Unmanned Aerial Vehicle. Proceedings of the 14th International Conference on Informatics in Control, Automation and Robotics - Volume 2: ICINCO. SciTePress. 2, pp.262-269. ISBN 978-989-758-264-6.

C.2. Conferences and meetings

1 Irene González-Eiroa; Vazquez-Araujo, FJ; Paula M. Castro; Robles-García V; Adriana Dapena. Assessment of selective attention in children through Digital Teddy: preliminary study. V XoveTIC Conference 2022. Centro de Investigación en Tecnoloxías da Información e as Comunicacións (CITIC). 05/10/2022. Spain. Participatory - oral communication.

2 Paula M. Castro; Adriana Dapena; Francisco Laport. PictoCal: a digital calendar of daily activity based on pictograms. 5th XoveTIC Conference. Centro de Investigación en Tecnoloxías da Información e as Comunicacións (CITIC). 05/10/2022. Spain. Participatory - oral communication.

3 María J. Souto-Salorio; Adriana Dapena; Francisco Javier Vázquez Araújo; Magdalena Lemanska. Trees having domination number equal to {K2}-isolation number. Discrete Mathematics Days 2022. 04/07/2022. Spain. Participatory - oral communication.

4 Paula M. Castro; Adriana Dapena. Una feria tecnológica como recurso didáctico para la inclusión educativa y el aprendizaje universitario. XX Congreso Internacional de Investigación Educativa: Educación Inclusiva y Equitativa de Calidad (AIDIPE 2022). Asociación Interuniversitaria de Investigación Pedagógica (AIDIPE). 14/06/2022. Spain. Participatory - oral communication.

5 Ainhoa Molinero-Rodríguez; R. Carneiro-Medin; María del Carmen Miranda-Duro; Laura Nieto-Riveiro; Paula M. Castro; Adriana Dapena. Create Publication: Development of Dual Activities with Micro:Bit for Interventions in People with Cerebral Palsy. IV Congreso XoveTIC 2021. Centro de Investigación en Tecnoloxías da Información e as Comunicacións (CITIC). 07/10/2021. Spain. Participatory - oral communication.

6 Pedro Nogueiras; Paula M. Castro; Adriana Dapena. PreLectO: An App for Cognitive Stimulation through Games in Early Childhood. IV Congreso XoveTIC 2021. Centro de Investigación en Tecnoloxías da Información e as Comunicacións (CITIC). 07/10/2021. Spain. Participatory - oral communication.

7 Adriana Dapena; Luis Maria Hervella Nieto; Paula M. Castro. Evaluación del impacto en indicadores de rendimiento académico de la no presencialidad debida a la COVID-19. XXXVI Simposio Nacional de la Unión Científica Internacional de Radio (URSI 2021). Universidade de Vigo. 20/09/2021. Spain. Participatory - oral communication.

8 Adriana Dapena; María J. Pereira-Sáez; María J. Souto-Salorio; Ana D. Tarrío-Tobar. La noción de límite: una propuesta didáctica en grados de ingeniería. VII Congreso Internacional de Docencia Universitaria CINDU 2021. 14/06/2021. Spain. Participatory - oral communication.

9 David Moreno Naya; Francisco Javier Vázquez Araújo; Paula M. Castro; Jamile Vivas; Adriana Dapena; L. González-Doniz. Mobile Application for Analysing the Development of Motor Skills in Children. III XoveTIC 2020. Centro de Investigación en Tecnoloxías da Información e as Comunicacións (CITIC). 08/10/2020. Spain. Participatory - oral communication.

10 A. Lopez-Fernandez; R. Carneiro-Medin; Thais Pousada Garcia; Groba-González, MB; Adriana Dapena. Development of Recreational Content with Micro:Bit for Intervention with People with Cerebral Palsy. III XoveTIC 2020. Centro de Investigación en Tecnoloxías da Información e as Comunicacións (CITIC). 08/10/2020. Spain. Participatory - oral communication.

11 Francisco Laport; Paula M. Castro; Adriana Dapena; Francisco Javier Vázquez Araújo; Daniel Iglesia. Study of Machine Learning Techniques for EEG Eye State Detection. III XoveTIC 2020. Centro de Investigación en Tecnoloxías da Información e as Comunicacións (CITIC). 08/10/2020. Spain. Participatory - oral communication.

12 Paula M. Castro; Adriana Dapena. Aprendizaje y servicio para la enseñanza de tecnología: desarrollo de un robot. XXXV Simposio Nacional de la Unión Científica Internacional de Radio (URSI). Universidad de Málaga. 02/09/2020. Spain. Participatory - oral communication.

13 Francisco Laport; Adriana Dapena; Paula M. Castro; R. Araujo. Comparison of Sliding Transforms and Discrete Wavelet Transforms to Detect Eye States. XXXV Simposio Nacional de la Unión Científica Internacional de Radio (URSI). Universidad de Málaga. 02/09/2020. Spain. Participatory - oral communication.

14 Francisco Laport; R. Araujo; Daniel Iglesia; Paula M. Castro; Adriana Dapena. A Comparative Study of Low Cost Open Source EEG Devices. The 2nd XoveTIC Conference (XoveTIC 2019). Universidade da Coruña. 05/09/2019. Spain. Participatory - oral communication.

15 Paula M. Castro; Adriana Dapena; Francisco Laport; Óscar Fresnedo. Herramienta colaborativa para la evaluación de una asignatura tecnológica en máster. XXXIV Simposium Nacional de la Unión Científica Internacional de Radio (URSI). Universidad de Sevilla (US). 04/09/2019. Spain. Participatory - oral communication.

16 Óscar Fresnedo; Francisco Laport; Paula M. Castro; Adriana Dapena. Implementación de una herramienta gráfica para el estudio de comunicaciones digitales. XXXIV Simposium Nacional de la Unión Científica Internacional de Radio (URSI). Universidad de Sevilla (US). 04/09/2019. Spain. Participatory - oral communication.

17 Francisco Laport; Francisco Javier Vázquez Araújo; Paula M. Castro; Adriana Dapena. Estudio de la DFT deslizante para clasificación de estados oculares con bajo retardo. XXXIV Simposium Nacional de la Unión Científica Internacional de Radio (URSI). Universidad de Sevilla (US). 04/09/2019. Spain. Participatory - oral communication.

18 José J. Lamas-Seco; Paula M. Castro; R. Araujo; Francisco Laport; Adriana Dapena. Comparativa de técnicas de estimación de la velocidad puntual de vehículos usando sensores inductivos de doble bucle. XXXIII Simposium Nacional de la Unión Científica Internacional de Radio (URSI 2018). Universidad de Granada. 05/09/2018. Spain. Participatory - oral communication.

19 Francisco Laport; Paula M. Castro; R. Araujo; Adriana Dapena; José J. Lamas-Seco. Extracción y clasificación de características a partir de señales EEG. XXXIII Simposium Nacional de la Unión Científica Internacional de Radio (URSI 2018). Universidad de Granada. 05/09/2018. Spain. Participatory - oral communication.

20 Paula M. Castro; Adriana Dapena; María J. Pereira-Sáez; R. Araujo. O modelado e a simulación como recursos para a aprendizaxe. II Xornadas de innovación docente da UDC. Contextos universitarios transformadores: Retos e ideas innovadoras. Universidade da Coruña. 27/10/2017. Spain. Participatory - oral communication.

21 Adriana Dapena; María J. Souto-Salorio; Ana D. Tarrío-Tobar; Paula M. Castro. An Algebraic Collision Avoidance Approach for Unmanned Aerial Vehicle. 14th International Conference on Informatics in Control, Automation and Robotics (ICINCO). Universidad de Granada. 26/07/2017. Spain. Participatory - oral communication.

22 Paula M. Castro; Adriana Dapena; María J. Pereira-Sáez; María J. Souto-Salorio; Ana D. Tarrío-Tobar. Un recurso para a aprendizaxe de Álxebra Lineal: control do movemento dun dron. V Congreso Internacional de Docencia Universitaria CINDU 2017. Universidad de Vigo (UV). 15/06/2017. Spain. Participatory - oral communication.

23 José J. Lamas-Seco; Paula M. Castro; R. Araujo; Adriana Dapena. Nuevo modelo multiespira de sensores inductivos para tráfico de vehículos. XXXI Simposium Nacional de la Unión Científica Internacional de Radio (URSI). Unión Científica Internacional de Radio. 05/09/2016. Spain. Participatory - oral communication.

24 José J. Lamas-Seco; Paula M. Castro; Adriana Dapena; R. Araujo; Begoña García Zapirain. SimSiVIDS: Modelling of an Inductive Sensor for Traffic Applications. UKSim-AMSS 9th European Modelling Symposium on Mathematical Modelling and Computer Simulation. UK Simulation Society and Asia Modelling and Simulation Section. 06/10/2015. Spain. Participatory - oral communication.

25 José J. Lamas-Seco; Adriana Dapena; José Pablo González Coma; Paula M. Castro; R. Araujo. System for Vehicle Classification: Hardware Prototype and Off-line Signal Proccesing. IEEE Region 8 EuroCon 2015 Conference. Universidad de Salamanca. 08/09/2015. Spain. Participatory - oral communication.

26 José J. Lamas-Seco; Paula M. Castro; Adriana Dapena; R. Araujo. Sistema de clasificación basado en magnitud-FFT usando huellas inductivas de vehículos. XXX Simposium Nacional de la Unión Científica Internacional de Radio (URSI 2015). Universidad Pública de Navarra (UNAVARRA). 02/09/2015. Spain. Participatory - oral communication.

C.3. Research projects and contracts

1 **Project**. ED431C 2020/15, Axudas para a consolidación e estruturación de unidades de investigación competitivas-GRC. Consellería de Educación e Ordenación Universitaria. 01/01/2020-31/12/2023. 280.000 €. Collaborator.

2 **Project**. PID2019-104958RB-C42, Avances en codificación y procesado de señal para la sociedad digital. Ministerio de Ciencia e Innovación. 01/06/2020-31/05/2023. 214.775 €. Collaborator.

3 **Project**. --, FMApp: Aplicación móvil para el desarrollo de las habilidades motoras finas en la infancia (Programa Transfire-UDC, modalidad Valorizatec). OTRI-Oficina de Transferencia de Resultados de Investigación. 24/02/2022-24/02/2023. 0 €. Principal investigator.

4 **Project**. FCT-20-16226, TALENTOS INCLUSIVOS-Jóvenes para una tecnología inclusiva: promoviendo soluciones tecnológicas con y para estudiantes de secundaria y personas con parálisis cerebral. Fundación Española para la Ciencia y la Tecnología (FECYT). 01/07/2021-30/09/2022. 25.000 €. Collaborator.

5 **Project**. PCI2018-093241, High performant Wide Band Gap Power Electronics for Reliable, energy eFficient drivetrains and Optimization thRough Multi-physics simulation. MINISTERIO DE CIENCIA, INNOVACIÓN Y UNIVERSIDADES. 01/01/2019-31/12/2021. 20.000 €. Collaborator.

6 **Project**. 101035979, Galician Night of Researchers (G-NIGHT). PROGRAMA HORIZONTE 2020 de la Unión Europea (convocatoria H2020-MSCA-NIGHT-2020bis). 01/05/2021-30/11/2021. 59.613 €. Collaborator.

7 **Project**. Grant Agreement Nº 783174, High performant wide band gap power electronics for reliable, energy efficient drivetrains and optimization through multi-physics simulation (HiPERFORM). COMISIÓN EUROPEA. 17/05/2018-16/05/2021. 170.283,75 €. Team member.

8 **Project**. TEC2016-75067-C4-1-R, CODIFICACION Y PROCESADO DE SEÑALES PARA REDES EMERGENTES DE COMUNICACION Y DE SENSORES INALAMBRICAS. Ministerio de Economía y Competitividad (MINECO). 30/12/2016-29/12/2019. 227.359 €. Collaborator.

9 **Project**. TEC2016-75067-C4-1-R, Proyecto CARMEN ("Coding and Signal Processing for Emerging Wireless Communication and Sensor Networks"). Programa Estatal de Investigación, Desarrollo e Innovación Orientada a los Retos de la Sociedad. Gobierno de España.. 30/12/2016-29/12/2019. 227.359 €. Collaborator.

C.4. Awards

1 **Best paper** "Assessment of Selective Attention in Children through Digital Teddy: preliminary study", conference XoveTIC, 2022

2 **Project** "TFG para el desarrollo de aplicaciones informáticas de apoyo a la diversidad", call Service-Learning Project, University of A Coruña, 2021

3 **Best paper** "Mobile Application for Analysing the Development of Motor Skills in Children", conference XoveTIC, 2020

4 **Project** "Geometría aplicada", call "Campus vivo - Investigar en la universidad", FECYT, 2019

PERSONAL INFORMATION: Family name, First name: Godino-Llorente, Juan I.
Researcher unique identifier(s): ORCID: **0000-0001-7348-3291**, Research ID: **F-5855-2016**
URL for web site: http://www.byo.upm.es

BIOSKETCH.

Juan I. Godino-Llorente was born in Madrid, Spain, in 1969. He received the B.Sc. and M.Sc. degrees in Telecommunications Eng., and the PhD. degree in Computer Science in 1992, 1996 and 2002, respectively, all from Universidad Politécnica de Madrid (UPM), Spain. From 1996 to 2003 he was with the UPM as Ass. Professor at the Circuits and Systems Eng. Dept. From 2003 to 2005 he joined the Signal Theory and Communications Dept. at the University of Alcala. From 2005, he joined again UPM, being the Head of the Circuits and Systems Eng. Dept. from 2006 till 2010. Since 2011 he is Full Professor in the area of Signal Theory and Communications. In 2006, he won the associate professor position after a national qualifying competitive call with 130 candidates, in which was ranked 1st.

During the academic term 2003-2004, he was a Visiting Professor at Salford University, Manchester, UK; and in 2016, he has been a Visiting Researcher at the Massachusetts Institute of Technology, USA funded by a Fulbright grant. He has served as editor for the IEEE Journal of Selected Topics in Signal Processing, for the IEEE Trans. on Audio, Speech and Language Processing, for the Speech Communication Journal, and for the EURASIP Journal of Advances in Signal Processing; and has also been a member of the scientific committee of INTERSPEECH, IEEE ICASSP, EUSIPCO, BIOSIGNALS, and other top ranked events for more than 10 years. He has participated as invited speaker in several international advanced schools, and has delivered invited speeches at different universities and events, including Harvard University, Johns Hopkins University, Tampere University and National University of Colombia.

He has an extensive experience endorsed by more than twenty years in the fields of signal/image processing and applied artificial intelligence. He has a large experience in the development of expert decision support systems in medicine, including applications for image processing, speech, electrocardiogram, phonocardiogram, telemedicine, pattern recognition and machine learning.

He has chaired the 3rd Advanced Voice Function Assessment Workshop, and of the 1st and 2nd Automatic Assessment of Parkinsonian Speech Workshop. Likewise, since 2004, he is part of different panels of experts of the European Commission, and has been national coordinator of COST Action 2103, funded by the European Science Foundation. He is also expert evaluator of research proposals for the Spanish, Portuguese, Latvian, Polish, Israeli, Czech, Icelandic, Romanian, Belgian, and Norwegian research agencies.

In the field of artificial intelligence, he has extensive experience in R+D+I projects with various institutions and companies, as well as experience in training research students: 7 doctoral theses have been developed under his supervision and two more are in progress.

He has published more than 70 papers in international journals included in the Science Citation Index and more than 50 in top ranked conferences. The international impact of his research activities is supported by the large number of publications in international journals, which have attracted more than 5500 citations (h-index=38). He has led 10 competitive projects and 12 research projects financed by companies and public institutions. In total, he has received more than 2,5 M€ of funding from competitive calls and from the industry for research purposes.

As a result of his research activities, he has transferred several products to the industry for exploitation: “MedivozCaptura” and “WPCVox” (M-5927/2002, M-7576/2003). These two intellectual property registers are part of a package developed for the assessment of voice that is currently under exploitation by the company TGH Endoscopia, which up to date has generated more than 600 k€ of income. Furthermore he has developed 6 software packages that have been successfully under exploitation by their promoters.

The previous work has been recognized through: BSc Thesis Extraordinary Award 1992; UPM Extraordinary PhD Award 2001/2002; 2004 Award for Research or Technological Development for Professors of the UPM; 2002 "SIDAR-Universal Access" Award; finalist of the 2009 "best paper award" of the IEEE Engineering in Medicine and Biology Conference; 2010 and 2018 best research paper award of the Spanish Excellence network on speech technology; finalist of the “2012 Best Demo award” of the Spanish Excellence network on speech technology; “2015 Entrepreneur award” of the IEEE Spain with the startup IngeVox, 2008. Moreover, he has been appointed Fulbright Scholar, senior member of the IEEE, ELLIS member, and honorary professor of the National University of Colombia.

He has been ad hoc reviewer for more than 30 journals in the field of artificial intelligence, including “Comput. Meth. Prog. Bio.”, “IEEE T. Biomed. Eng.”, “IEEE T. Inf. Technol. B”, “IEEE T. Intell. Trans. Systems”, “IEEE T. Trans. Audio, Speech, Language Process.”, “IEEE Trans. Neural Systems and Rehab. Eng”, “IEEE Journal of Selected Topics in Signal Proc.”, “Pattern Recognition”, “Med. Eng. Phys”, “Speech Commun.”, “Biomed. Signal Processing & Control”, “J. Roy. Soc. Interface”, “Signal Process.”, “Comput. Meth. & Prog. Biomed”, “IEEE Access”, “J. Acoust. Soc. Am.”, and many others.

CURRICULUM VITAE (maximum 4 pages)

Part A. PERSONAL INFORMATION

CV date	Sep. 23, 2021

First and Family name	Fernando Pérez González		
Social Security, Passport, ID number	36080476P	Age	51
Researcher numbers	Scopus Author ID	7003931738	
	Orcid code	0000-0002-0568-1373	

A.1. Current position

Name of University	Universidad de Vigo			
Department	Teoría de la Señal y Comunicaciones			
Address and Country	C/Maxwell s/n. 36310 Vigo, Spain			
Phone number	+34 986 812124	E-mail	fperez@gts.uvigo.es	
Current position	Full Professor (Catedrático)		From	Dec. 2000
Espec. cód. UNESCO	332599 (Signal Processing and Communications)			
Palabras clave	Signal Processing, Multimedia Security, Privacy and Anonymity			

A.2. Education

PhD	University	Year
Telecommunications	Universidad de Vigo	1993

A.3. JCR articles=68, total documents (Scopus)=213, h index=36 (Google Scholar), h=25 (Scopus, self-cites excluded); i10 index=112 (G.Scholar), total citations=5921 (G.Scholar), total citations=3103 (Scopus, self-cites excluded), citations/year (last 5): 311, theses supervised=13, "sexenios"=5 (last: 2020)

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

Fernando Pérez-González, Telecom. Eng. from the U. Santiago, Spain, 1990. Ph.D. from the U. Vigo, Spain, 1993, also in Telecom. Eng. Professor, Signal Theory and Communications Department, UVIGO since 2000. During 2009-2012 holder of the Prince of Asturias Endowed Chair on Information Science and Related Tech. at the University of New Mexico (UNM), where he keeps an appointment as Research Professor.

During 2007-2010 he was Program Manager of the Spanish National R&D Plan on Electronic and Communication Technologies, Ministry of Science and Innovation. In 2007-2014 he was the founding Executive Director of the Galician Research and Development Center in Advanced Telecommunications (GRADIANT), a semi-private research center with more than 100 employees. He leads the Signal Processing and Communications Group (GPSC) at the UVIGO: over 20 members, including faculty, postdocs and graduate students.

His research interests lie at the crossroads of signal processing, security/privacy and communications, in particular, those problems in which an adversary is present. He has co-authored 70 papers in peer-reviewed international journals and more than 175 papers published in various conference proceedings. According to Google Scholar, his works have received more than 1800 citations in the past five years, with an h-index of 36. In Scopus his h-index (excluding self-citations) is 25.

PI of more than 30 contracts with industry. Co-founder of 8 companies in the ICT sector; the 5 surviving ones currently employ more than 150 engineers. Co-founder of two VC firms that invest in tech start-ups. 15 patents (most international) covering a wide range of technologies. He led the group of the University of Vigo that took part in the European projects CERTIMARK (FP5), ECRYPT (FP6), REWIND (FP7), NIFTY (FP7), WITDOM (H2020) and currently UNCOVER (H2020).

Co-chair of 7 international conferences and workshops, the most recent one EUSIPCO 2021 in Dublin. Co-chair of Technical Program Committee of 9 international conferences. Member of the technical program committee of more than 100 international conferences.

Associate Editor of IEEE Signal Processing Letters (2005-2009) and IEEE Trans. on Information Forensics and Security, IEEE-TIFS, (2006-2010). Editor in Chief of EURASIP International Journal on Information Security (2017-present). Senior Area Editor IEEE-TIFS (2019-present). He has given tutorials and keynotes at major international conferences.

Many professional awards, among which: Engineer of the Year, by the Galician Official Association of Telecommunication Engineers, 2011; Cloud Innovation Award by Fujitsu, 2011. Best paper awards at 6th IEEE WIFS; 10th IEEE WIFS; IWDW 2011; 7th Information Hiding Workshop.

He is a Fellow of the IEEE, elected member (twice) of the Information Forensics and Security Technical Committe, IEEE Signal Processing Society, and a member (elected twice) of the EURASIP Biometrics, Data Forensics, and Security Special Area Team (BForSec SAT). In 2014 he was appointed member of the Galician Royal Academy of Sciences, and now serves in its Executive Board.

Part C. RELEVANT MERITS

C.1. Publications (including books). Selected journal papers (last 5 years)

1. B. Cortiñas-Lorenzo and F. Pérez-González, *Adam and the Ants: On the Influence of the Optimization Algorithm on the Detectability of DNN Watermarks*, Entropy vol. 22, no. 12: 1379, December 2020. Impact Factor: 2.51 (Q2 in Physics, Multidisciplinary)
2. S. Fernández-Menduiña and F. Pérez-González. *Temporal Localization of Non-Static Digital Videos Using the Electrical Network Frequency*, IEEE Signal Processing Letters, vol. 27, pp. 745-749, April 2020. Impact Factor: 3.11 (Q2 in Engineering, Electrical and Electronic)
3. D. Vázquez-Padín, M. Fontani, D. Shullani, F. Pérez-González, A. Piva and M. Barni. Video Integrity Verification and GOP Size Estimation via Generalized Variation of Prediction Footprint, IEEE Transactions on Information Forensics and Security, vol. 15, no. 1, pp. 1815-1830, January 2020. Impact Factor: 7.178 (Q1 in Engineering, Electrical and Electronic)
4. L. Bondi, P. Bestagini, F. Pérez-González and S. Tubaro. *Improving PRNU Compression through Preprocessing, Quantization and Coding*, IEEE Trans. on InformationvForensics and Security, vol. 14, no. 3, pp. 608-620, March 2019. Impact Factor: 6.211 (Q1 in Engineering, Electrical and Electronic)
5. C. Pasquini, G. Boato and F. Pérez-González. *Statistical Detection of JPEG Traces in Digital Images in Uncompressed Formats*, IEEE Trans. on Information Forensics and Security, vol. 12, no. 12, pp. 2890-2905, December 2017. Impact Factor: 6.211 (Q1 in Engineering, Electrical and Electronic)
6. D. Vázquez-Padín, F. Pérez-González and P. Comesaña-Alfaro. *A Random Matrix Approach to the Forensic Analysis of Upscaled Images*, IEEE Trans. on Information Forensics and Security, vol. 12, no. 9, pp. 2115-2130, September 2017. Impact Factor: 6.211 (Q1 in Engineering, Electrical and Electronic)
7. A. Pedrouzo-Ulloa, J.R. Troncoso-Pastoriza and F. Pérez-González. *Number Theoretic Transforms for Secure Signal Processing*, IEEE Trans. on Information Forensics and Security, vol. 12, no. 5, pp. 1125-1140, May 2017. Impact Factor: 6.211 (Q1 in Engineering, Electrical and Electronic)

8. B. Tondi, P. Comesaña-Alfaro, F. Pérez-González and M. Barni. *Smart Detection of Line-Search Oracle Attacks*, IEEE Trans. on Information Forensics and Security, vol. 12, no. 3, pp. 588-603, March 2017. Impact Factor: 6.211 (Q1 in Engineering, Electrical and Electronic)
9. R. Kazemi, F. Pérez-González, M.A. Akhaee and F. Behnia. *Data hiding robust to mobile communication vocoders*, IEEE Trans. on Multimedia, vol. 18, no. 12, pp. 2345-2357, December 2016. Impact Factor: 5.452 (Q1 in Engineering, Electrical and Electronic)

Book Chapters:

1. M. Masciopinto, P. Comesaña and F. Pérez-González. IPTV Streaming Classification, in S.M. Fati, S. Azad and A.K. Pathan (Eds.), IPTV Delivery Networks: Next Generation Architectures for Live and Video-on-Demand Services, Wiley, pp. 25-64, May 2018.

C.2. Research projects and grants. Selected R&D projects from the last 5 years.

1. "UNCOVER: Development of an Efficient Steganalysis Framework for Uncovering Hidden Data in Digital Media". European Union. Project No. 101021687, Call H2020-SU-SEC-2020. Participants: Royal Military Academy, Belgium, and 20 other partners. PI at UVIGO: Fernando Pérez-González. Funding UVIGO: 335.500 €
2. RODIN: Robust Methods for Statistical Inference, Data Integrity and Interference Management, From: Jun 2020 to: May 2023. Spanish Ministry of Science and Innovation. Participants: UVigo, UPC. PI: Roberto López Valcarce. Funding: 169.100 €.
3. AIDFORK: Lifting and Transferring an Analytic Media Forensic Kit. Principal Investigator: Fernando Pérez-González. Funded by: Xunta de Galicia (Regional Gov.), IGNICIA Proof of Concept Competitive Call, 2019. Funding: 360.000 €.
4. "WITDOM: Empowering Privacy and Security in Non-trusted Environments". European Union. Project No 644371, Call No H2020-ICT-2014-1. From: Jan 2015 to: Dec 2017. Participants: Atos Spain S.A. (Coordinator), UVigo (Technical coordinator), Katholieke Universiteit Leuven, IBM Research GmbH, XLAB, Fondazione Centro San Raffaele, BBVA. PIs at UVIGO: Fernando Pérez-González and Juan Ramón Troncoso. Funding UVIGO: 538.687,50 €

C.3. Contracts. Selected R&D contracts from the last 5 years.

1. YOU-ME-OOH: Research Agreement between University of Vigo and Jumio Corporation. Funding: Jumio (USA). 2021. Amount: 65,000 €. PI: Fernando Pérez-González
2. ATTRIBUTE: Research on Information Protection Modules and Fraud Detection. Funding: Galician R&D Center in Telecommunications (GRADIANT). 2018. Amount: 40,000 €. PI: Fernando Pérez-González.
3. NOMINATE: Information Rights Management Advanced System 2. Funding: Galician R&D Center in Telecommunications (GRADIANT). 2018. Amount: 20,000 €. PI: Fernando Pérez-González.
4. MSM-IRMAS: Information Rights Management Advanced System. Funding: Galician R&D Center in Telecommunications (GRADIANT), 2017. Amount: 55,400 €. PI: Fernando Pérez-González.
5. CHAMACO: Noise Detection in Images. Funding: Galician R&D Center in Telecommunications (GRADIANT), 2017. Amount: 26,000 €. PI: Fernando Pérez-González.
6. DIFFERENT: Digital Terrestrial Television with no Interferences by Combining Analog and Digital Filtering with Signal Enhancement and Transmit Noise Removal. Funding: Televes. From 2015 to: 2017. Amount: 44,550 €. PI: Fernando Pérez-González.

C.4. Patents. Selected Recent International patents.

1. J.R. Troncoso Pastoriza, A. Pedrouzo Ulloa, F. Pérez González. System and apparatus for secure outsourced annotation and reannotation of sensitive datasets, European Patent EP3461055, February 12, 2020.
2. J.R. Troncoso-Pastoriza and Fernando Pérez-González. System for secure image recognition, US Patent US8972472, March 3, 2015.
3. F. Pérez-González, P. Comesaña, L. Pérez-Freire and D. Pérez-Vieites. Method and system for robust audio hashing, European Patent EP2507790, January 22, 2014; US Patent US9286909, March 15, 2016.
4. J.R. Troncoso-Pastoriza and F. Pérez-González. Method and apparatus for secure iterative processing, US Patent US8837715, September 16, 2014.
5. J.R. Troncoso-Pastoriza, P. Comesaña-Alfaro and F. Pérez-González. Cryptographic system for performing secure iterative computations and signal processing directly on encrypted data in untrusted environments, US Patent US8843762, September 23, 2014.
6. J.R. Troncoso-Pastoriza, P. Comesaña-Alfaro and F. Pérez-González. Cryptographic system for performing secure computations and signal processing directly on encrypted data in untrusted environments, US Patent US8433925, April 30, 2013; European Patent EP2317689 August 15, 2018.
7. F. Pérez-González and A. Malvido. Document Integrity Verification Procedure. US Patent US8094889, January 10, 2012; European Patent EP2243104, May 16, 2012.

C.5. Awards and Distinctions (last 5 years)

- A. Pedrouzo-Ulloa, M. Masciopinto, J.R. Troncoso and F. Perez-Gonzalez. Camera Attribution Forensic Analyzer in the Encrypted Domain. 10th IEEE International Workshop on Information Forensics and Security, WIFS 2018, Hong-Kong, December 2018. Best Paper Award.
- Fellow, The Institute of Electrical and Electronics Engineers (IEEE), 2016. For contributions to “multimedia security”.

C.6. Professional Service

- Editor in Chief, EURASIP Journal on Information Security 2017.
- Associate Editor, IEEE Signal Processing Letters, 2005-2009; IEEE Trans. on Information Forensics and Security 2006 – 2010; Springer LNCS Transactions on Data Hiding and Multimedia Security, 2005 – Present; EURASIP Journal on Information Security 2006 – 2017.
- Senior Area Editor, ; IEEE Trans. on Information Forensics and Security, 2019 – Present.
- Elected Member of the Special Area Team in Biometrics, Data Forensics and Security, EURASIP, 2016-Present
- Elected Member of the IEEE Signal Processing Society, Information Forensics and Security Technical Committee, 2010-2012, 2015-2017.
- Holder of the Prince of Asturias Endowed Chair in Information Sciences and Related Technologies. Electrical and Computer Engineering Department, University of New Mexico, USA, 2009-2012.
- Program Manager of the National R&D Plan (Electronics and Communication Technologies Program). Spanish Ministry of Science and Innovation, 2007-2010.
- Founding Executive Director, Galician Research Center in Advanced Telecommunications (Gradiant), 2007-2014.

CURRICULUM VITAE ABREVIADO (CVA)

***IMPORTANT** – The Curriculum Vitae cannot exceed 4 pages. Instructions to fill this document are available in the website.*

Part A. PERSONAL INFORMATION

First name	Eva		
Family name	Rajo Iglesias		
Gender (*)	Female		
e-mail	Eva.rajo@uc3m.es		
Open Researcher and Contributor ID (ORCID) (*)	0000-0002-8012-9802		

(*) Mandatory

A.1. Current position

Position	Full Professor		
Initial date	28/11/2018		
Institution	Universidad Carlos III de Madrid		
Department/Center	Signal Theory and Communications		
Country	Spain	Teleph. number	916248774
Key words	Antennas, metasurfaces, gap waveguide technology, microwaves		

A.2. Previous positions (research activity interuptions, indicate total months)

Period	Position/Institution/Country/Interruption cause
2008-2018	Assoc. Professor/Univ. Carlos III of Madrid/Spain
2002-2008	Lecturer /Univ. Carlos III of Madrid/Spain

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
Ing. Telecomunicación	Universidade de Vigo	1996
Doctor Ing. Telecomunicación	Universidad Carlos III de Madrid	2002

Part B. CV SUMMARY *(max. 5000 characters, including spaces)*

Eva Rajo Iglesias (Monforte de Lemos, 1972) is a Full Professor at the Dpt. of Signal Theory and Communications at the Carlos III University of Madrid since 2018. She has been an Affiliated Professor at the Antenna Group at Chalmers University (Sweden) between 2009 and 2016. She is Head of the Radio Technologies and Applications research group of the UC3M (https://gea.webs.tsc.uc3m.es/).

Her research activity is related to printed antennas, artificial surfaces and periodic structures, higher symmetries, gap waveguide technology, and MIMO systems. In the topic of gap waveguide technology, she has published 35 journal articles, a book chapter, two patents and she has organized special sessions in the main international conferences of antennas. She has also given short courses about this topic in conferences like EuCAP or IEEE APS and in the European School of Antennas. She has been plenary speaker in the conference in EuCAP 2017 with the talk: "*Antenna designs based on Gap Waveguide Technology*". More recently she gave an Opening talk in the European Microwave Week 2021 in the EuRAD conference about the same topic and a keynote talk in ISAP 2022.

She has been Associate Editor of IEEE Antennas and Propagation Magazine from 2009-2019 and of the IEEE Antennas and Wireless Propagation Letters from 2011-2016 and currently is Associate Editor of IEEE Transactions Antennas and Propagation. She is now the national delegate of the COST-18223 ACTION " *Future communications with higher-symmetric engineered artificial materials*" (https://symat-cost.eu/).

She is co-author of more than 100 papers at JCR journals and more than 180 in international conferences (many of them invited in Convened Sessions), 4 book chapters and 9 patents. Her h-index is 41 according to Google (with more than 6650 citations) and 32 according to Web of Science (with more than 3800 citations). More than half of her papers have international co-authors.

She has participated in more than 25 competitive research projects with public funding (6 as IP) and more than 20 contracts with companies like Nokia or Airbus.

She has 5 *sexenios* (one of them of technological transfer). She has supervised 4 doctoral theses at the Carlos III University and co-supervised 3 more at the Univ. of Chalmers.

She has been a co-chair of the Department of Signal Theory and Communications of the University Carlos III of Madrid from January 2011 to June 2012 and from October 2016 to April 2021.
She has been a permanent collaborator in the Ministery for the research national plan in the TEC area for 4 years and is a regular project evaluator for the European Comision (ERC, Flagship, FET programs…), and also for other countries sporadically (Italy, Holland, Portugal, Belgium, South Africa…). She regularly collaborates with ANECA and with regional agencies in all kinds of evaluation programs (projects, research groups, etc.).

She has been a member of more than 35 PhD thesis committees (more than 10 of them in foreign universities). She has been (co)-Chair of three conferences (CONATEL 2011, LAPC 2016 and 3rd International Workshop of Metamaterials by Design 2018) and has participated in the organization of EuCAP 2022, EuCAP 2021, EuCAP 2019, EuCAP 2013 and IEEE AP-S 2012. She is currently TPC Chair of EuCAP 2023. She is a regular member of the TPC of the EuCAP, IEEE AP-S, NEMO, MMS, URSI…

She has also been a member of the award committees at LAPC 2014, IEEE AP-S 2016, EuCAP 2018, EuCAP 2020, InCAP 2019 and EuRAAP (2015 to present being now the chair). Her work has received several awards as some Best Paper Awards at international conferences (Metamaterials 2009, LAPC 2007, ISAP 2021, National URSI 2021), the First National Prize Arquímedes Award 2010 as a tutor, an Award of Excellence for Young Researchers from the Carlos III University in 2014 and the Third Bell Labs Award in 2014.
She has carried out research stays in universities of Sweden (Chalmers, KTH), Italy (Siena, Trento), France (Nice, Paris) or Chile (PUCV).

She is currently the 2022 Euraap Ambassador (https://www.euraap.org/blog/news-1/euraap-ambassador-program-2).

She is listed in the World's Top 2% Scientists list elaborated by Stanford University.

Part C. RELEVANT MERITS *(sorted by typology)*

C.1. Publications *(see instructions)*

She is the author of more than 100 papers in international journal in JCR and more than 180 contributions in international conferences. Her work has been **cited more than 6650 times** with **an h-index of 41**(according to Google Scholar). Some of the relevant publications related to the project are:

- M. Ebrahimpouri, **E. Rajo-Iglesias**, ,Z. Sipus, and O.Quevedo-Teruel, *Cost-Effective Gap Waveguide Technology Based on Glide-Symmetric Holey EBG Structures*, IEEE Transactions on Microwave Theory and Techniques Vol. 66, pp. 927-934, February 2018. **(171 citations)**
- **E. Rajo-Iglesias,** M. Ferrando-Rocher, A. U. Zaman, *Gap Waveguide Technology for Millimeter Wave Antenna Systems*, in IEEE Communications Magazine, vol. 56, no. 7, pp. 14-20, July 2018. (**107 citations)**
- E. Pucci, **E. Rajo-Iglesias**, J.-L. Vazquez-Roy, P.S. Kildal, *Planar Dual-Mode Horn Array With Corporate-Feed Network in Inverted Microstrip Gap Waveguide*, IEEE Trans. on Antennas and Propagation, vol.62, no.7, pp.3534-3542, July 2014. **(101 citations)**
- M. Ebrahimpouri, O. Quevedo-Teruel, **E. Rajo-Iglesias,** *Design Guidelines for Gap Waveguide Technology Based on Glide-Symmetric Holey Structures*, *IEEE Microwave and Wireless Component Letters, 2017*. 27(6), 542-544. **(145 citations)**
- **Eva Rajo-Iglesias**, Zvonimir Sipus, Ashraf Uz Zaman, *Gap Waveguide Technology* in "Surface Electromagnetics: With Applications in Antenna, Microwave, and Optical Engineering" Cambridge University Press ISBN: 9781108470261, 2019.
- P. Kildal, E. Alfonso, A. Valero-Nogueira, and **E. Rajo-Iglesias**, "Local Metamaterial-Based Waveguides in Gaps Between Parallel Metal Plates," *IEEE Antennas Wirel. Propag. Lett.*, vol. 8, pp. 84–87, 2009. **(764 citations)**
- E. Rajo-Iglesias, M. Ebrahimpouri, and O. Quevedo-Teruel, "Wideband Phase Shifter in Groove Gap Waveguide Technology Implemented With Glide-Symmetric Holey EBG," *IEEE Microw Wirel Compon Lett*, vol. 28, no. 6, pp. 476–478, Jun. 2018 **(100 citations)**
- L. Wang, J. L. Gómez-Tornero, E. Rajo-Iglesias, and O. Quevedo-Teruel, "Low-Dispersive Leaky-Wave Antenna Integrated in Groove Gap Waveguide Technology," *IEEE Trans. Antennas Propag.*, vol. 66, no. 11, pp. 5727–5736, Nov. 2018 **(77 citations)**
- J. M. Poyanco, F. Pizarro, and **E. Rajo-Iglesias**, *"Wideband Hyperbolic Flat Lens in the Ka-band Based on 3D-Printing and Transformation Optics,"* Applied Physics Letters, vol. 118, no. 12, p. 123503, 2021
- O. Quevedo-Teruel, G. Valerio, Z. Sipus, and **E. Rajo-Iglesias**, *"Periodic Structures with Higher Symmetries: Their Applications in Electromagnetic Devices,"* IEEE Microwave Magazine, vol. 21, no. 11, pp. 36–49, 2020

C.2. Congress, indicating the modality of their participation (invited conference, oral presentation, poster)

She has more than 180 contributions in international conferences, many of them in convened sessions. Following are the Keynote/Plenary talks in the last years:

- Keynote talk: *"New Trends in Antenna Design using Gap Waveguide Technology",* ISAP 2022.
- Keynote talk: "*Gap Waveguide Technology using Periodic Structures with Higher Symmetries"* ,Advanced Electromagnetic Symposium 2022, Marrakesh
- Opening talk: "*Emerging antenna technologies for millimeter and submilimiter wave radar systems"* EuRAD conference 2021, European Microwave Week 2021, London
- Plenary talk: "*Antenna designs based on Gap Waveguide Technology*", EuCAP 2017, Paris

C.3. Research projects, indicating your personal contribution. In the case of young researchers, indicate lines of research for which they have been responsible.

- *STEERCOMM - Antena con control de apuntamiento para comunicaciones por satélite en movimiento* Agencia Estatal de Investigación (2020-2023). **PDC2022-133811-C22** PI: Eva Rajo Iglesias
- *"Sistemas de antena eficientes para las futuras redes de comunicación"* (INMA), Agencia Estatal de Investigación (2020-2023). **PID2019-107688RB-C21**. PI: Eva Rajo Iglesias
- "*Antenna for Mobile Satellite Communications (SATCOM) in Ka-Band by means of metasurfaces"* (2016-2019) **TEC2016-79700-C2-2-R** Spanish Ministry of Science and Innovation (MINECO). PI: Eva Rajo Iglesias
- *"High-capacity Textile Device based on Massive MIMO Techniques"* (2015-2018) **TEC2014-61776-EXP** Spanish Ministry of Science and Innovation (MINECO). PI: Matilde Sánchez Fernández
- *"Space Debris Radar"* (2014-2018) **S2013/ICE3000** (SPADERadar-CM) Comunidad de Madrid. PI of UC3M team: Eva Rajo Iglesias
- *"Development of components and antennas in Gap-Waveguide technology for the improvement of transceiver performance in millimeter bands"* (2014-2017) **TEC2013-44019-R.** Spanish Ministry of Science and Innovation. PI: Eva Rajo Iglesias

C.4. Contracts, technological or transfer merits, Include patents and other industrial or intellectual property activities (contracts, licenses, agreements, etc.) in which you have collaborated. Indicate: a) the order of signature of authors; b) reference; c) title; d) priority countries; e) date; f) Entity and companies that exploit the patent or similar information, if any

Contracts with industry:

- *"Antenas 5G para acceso fijo a internet con mejora de capacidad"*, 5G-AFIANCE, **Nokia Spain** SA (2020-2022). PI: Eva Rajo Iglesias (THD call **TSI-100901-2019-004**). 101.177 €
- *"Tecnologías para la asequibilidad del acceso de banda ancha*", TREFOIL **Nokia Spain** SA (2020-2022). PI: Eva Rajo Iglesias (EUREKA PROJECT): 60.000 €
- *"SMART-O-LIVE*", **Digitanimal S.L.** (2022-2023) PI: Eva Rajo Iglesias (programa Misiones del CDTI). 32.000 €.
- *"Overlapped subarray fed reflector antennas for SAR instrument"*, tender European Space Agency. **Airbus Defence and Space** (2020-2021) PI: Eva Rajo Iglesias 36.000 €
- "*Tecnologías Radio para IoT marítima*" (2019-2021), **Blue Matter Technologies** SL. PI: Eva Rajo Iglesias. 15.000 €

Patents:

- **E. RAJO IGLESIAS**, M. SANCHEZ FERNANDEZ, A. FERNANDEZ, AND T. SANJUAN, "Dense multi-band antenna for fixed wireless," NOKIA SOLUTIONS & NETWORKS OY European patent with Application Number: 22382543.1. Jun. 2022.
- **RAJO IGLESIAS Eva**, SANCHEZ FERNANDEZ Matilde, FERNANDEZ Alfonso, "*Small Form Factor Mutiband Antenna"* NOKIA SOLUTIONS & NETWORKS OY. European **Patent application n. 21383242.1** submitted 30/12/2021
- MARTÍN BARTRINA, Álvaro VÁZQUEZ ROY, José, Luis DE INCIÁN SÁNCHEZ, Luis, Fernando, **RAJO IGLESIAS, Eva***, "Antenna Array Module",* MARITIME IOT SOLUTIONS BV 23.09.2021 WO/2021/185970, EP3883051 A1
- FERNANDEZ Alfonso, TOUCHARD Gloria, INCLAN SANCHEZ, Luis, RAJO IGLESIAS Eva, *"Antenna",* NOKIA SOLUTIONS & NETWORKS OY 25.12.2019 **EP3584884, US20190386386 A1**
- KILDAL, Per-Simon, KISHK, Ahmed ,**RAJO-IGLESIAS, Eva**, *"Packaging Of Active And Passive Microwave Circuits Using A Grid Of Planar Conducting Elements On A Grid Of Vertically Arranged Substrates"*, GAPWAVES AB 19.12.2013 **WO/2013/185807**
- KILDAL Per-Simon, KISHK Ahmed, **RAJO IGLESIAS Eva,** *"Packaging of active and passive microwave circuits using lid or bed of curved posts".* KILDAL ANTENN CONSULTING Nov, 30 2011: **EP2390953 A1**

Currículum Vitae

Dr. Sancho Salcedo Sanz

Fecha: 20 de Junio de 2023

DATOS PERSONALES

Nombre: Sancho
Apellidos: Salcedo Sanz
Código Orcid: 0000-0002-4048-1676

SITUACIÓN PROFESIONAL ACTUAL

Organismo: Universidad de Alcalá.
Facultad, Escuela o Instituto: Escuela Politécnica Superior.
Departamento: Teoría de la Señal y Comunicaciones.
Dirección Postal: Campus Universitario, Carretera Madrid-Barcelona Km 33.5, 28871 Alcalá de Henares, Madrid.
Teléfono: 91 885 67 31
Fax: 91 885 66 99
Correo electrónico: sancho.salcedo@uah.es
Categoría Profesional: Catedrático de Universidad
Fecha de inicio: 27/12/2017

Situación administrativa:

Plantilla ☒ Contratado ☐ INTERINO ☐ BECARIO ☐

Dedicación: A tiempo completo ☒ A tiempo parcial ☐

LÍNEAS DE INVESTIGACIÓN

Heurísticos modernos de optimización, algoritmos evolutivos, algoritmos genéticos, redes neuronales, máquinas de vectores soporte, técnicas de Soft-Computing en general y sus aplicaciones a problemas de optimización en telecomunicaciones, investigación operativa, y otros campos de la ingeniería y las ciencias.

FORMACIÓN ACADÉMICA

TITULACIÓN SUPERIOR	CENTRO	FECHA
Licenciado en CC. Físicas	Universidad Complutense de Madrid	30/06/1998
DOCTORADO	**CENTRO**	**FECHA**
Doctor en Ingeniería de Telecomunicación	Universidad Carlos III de Madrid	07/10/2002
Doctor en CC. Físicas	Universidad Complutense de Madrid	12/03/2019

ACTIVIDADES ANTERIORES DE CARÁCTER CIENTÍFICO PROFESIONAL

PUESTO	CENTRO	FECHA
Becario de Investigación	Universidad Carlos III de Madrid	01/10/1998-25/09/2002
Profesor Ayudante de Universidad	Universidad Carlos III de Madrid	25/09/2002- 30/09/2003
Research Fellow	The University of Birmingham (UK)	01/10/2003-30/09/2004
Profesor Titular de Universidad Interino	Universidad de Alcalá	01/10/2004-01/06/2006

Profesor Titular de Universidad	Universidad de Alcalá	02/06/2006-26/12/2017
Catedrático de Universidad	Universidad de Alcalá	27/12/2017 -

SEXENIOS DE INVESTIGACIÓN

1. CNAI 2001-2006
2. CNAI 2007-2012
3. CNAI 2013-2018
4. TRANSFERENCIA 2006-2011

IDIOMAS (R = regular, B = bien, C = correctamente)

IDIOMA	HABLA	LEE	ESCRIBE
Español	Nativo	Nativo	Nativo
Inglés	C	C	C
Francés	R	B	B

PARTICIPACIÓN Y DIRECCIÓN DE PROYECTOS DE I+D Y TRANSFERENCIA DE TECNOLOGÍA AL SECTOR PRODUCTIVO

Proyectos de I+D financiados en convocatorias públicas

1.
Título del proyecto: Nuevas técnicas de estimación basadas en máquinas de vectores soporte para la estimación de canales MIMO y series financieras.
Entidad financiadora: Comunidad de Madrid, Dirección General de Investigación.
Duración: 01/10/2003 hasta el 30/09/2004
Investigador Principal: Dr. Fernando Pérez Cruz
Referencia: 07T/0016/2003
Dotación: 27600 €

2.
Título del proyecto: Mejora y aplicación de algoritmos emergentes para problemas de optimización en telecomunicaciones
Entidad financiadora: Universidad de Alcalá.
Duración: 21/02/2005 hasta el 20/02/2007
Investigador Principal: Dr. Sancho Salcedo Sanz
Referencia: UAH PI2005/078
Dotación: 9600€

3.
Título del proyecto: Desarrollo de heurísticos emergentes para el diseño de redes de telecomunicación.
Investigador Principal: Dr. Sancho Salcedo Sanz
Entidad financiadora: Comunidad de Madrid, Universidad de Alcalá.
Duración: 01/01/2006 hasta 30/06/2007.
Referencia: CAM-2005/019
Dotación: 13000€

4.
Título del proyecto: Herramienta para el diseño estratégico de redes móviles de 2, 2.5 y 3G orientadas a estudios de regulación.
Investigador Principal: Dr. Antonio Portilla-Figueras.
Entidad financiadora: Comunidad de Madrid, Universidad de Alcalá.
Duración: 01/01/2007 hasta 31/12/2007.
Referencia: CCG06-UAH/TIC-460
Dotación: 15250€

5.
Título del proyecto: Desarrollo de heurísticos híbridos basados en redes neuronales, computación evolutiva y SVMs para la predicción de generación de energía eléctrica en plantas eólicas y fotovoltáicas.
Investigador Principal: Dr. Sancho Salcedo Sanz
Entidad financiadora: Comunidad de Madrid, Universidad de Alcalá.
Duración: 01/01/2008 hasta 31/12/2008.
Referencia: CCG07-UAH/TIC-1894
Dotación: 24777€.

6.
Título del proyecto: Detección automática de alternantes de onda T mediante análisis multiresolución y bancos de filtros modulados.

Entidad financiadora: Fondo de Investigaciones Sanitaria del Instituto de Salud Carlos III (FIS).
Duración: 01/01/2006 hasta el 31/12/2008
Investigador Principal: Dr. M. Blanco-Velasco
Referencia: PI052277
Dotación: 73185€

7.
Título del proyecto: Optimización y predicción en sistemas urbanos mediante técnicas de soft-computing: mejora de redes de medición de contaminación y despliegue de redes WiFi ubicuas.
Investigador Principal: Dr. Sancho Salcedo Sanz.
Entidad financiadora: Comunidad de Madrid, Universidad de Alcalá.
Duración: 01/01/2009 hasta 31/12/2009.
Referencia: CCG08-UAH/AMB-3993
Dotación: 16619€.

8.
Título del proyecto: Métodos emergentes para la optimización multicapa de redes de nueva generación y su aplicación a redes IP de futura generación (FGN)
Entidad financiadora: Ministerio de Educación y Ciencia.
Duración: 01/10/2006 hasta: 30/09/2009
Investigador Principal: Dr. José Antonio Portilla Figueras
Referencia: TEC2006-07010
Dotación: 90.750€

9.
Título del proyecto: OptCad. Optimización mediante algoritmos de Soft-Computing de procesos en la cadena de valor añadido de la producción
Entidad financiadora: Comunidad de Madrid, Universidad de Alcalá.
Duración: 01/01/2011 hasta el 31/12/2011
Investigador Principal: Dra. Silvia Jiménez-Fernández
Referencia: CCG10-UAH/TIC-5955
Dotación: 11000€

9.
Título del proyecto: Estimación y análisis de series de viento en parques eólicos.
Investigador Principal: Dr. Sancho Salcedo Sanz.
Entidad financiadora: Ministerio de Educación y Ciencia (Programa Avanza Competitividad).
Duración: 01/01/2011 hasta 31/12/2012.
Referencia: TSI-020100-2010-663
Dotación: 33445€.

10.
Título del proyecto: Algoritmos de Soft-Computing mejorados para problemas de predicción en el análisis de entidades aseguradoras.
Investigador Principal: Dr. Sancho Salcedo Sanz.
Entidad financiadora: Ministerio de Economía y Competitividad (Programa Nacional de investigación fundamental no orientada).
Duración: 01/01/2011 hasta 31/ 12/2013.
Referencia: ECO-2010-22065-C03-02
Dotación: 48400 €.

11.
Título del proyecto: CROMN: Algoritmos metaheurísticos para la optimización del coste del despliegue en redes de telecomunicación móvil.
Investigador Principal: Dr. Silvia Jiménez-Fernández
Entidad financiadora: Universidad de Alcalá.
Duración: 02/12/ 2014 hasta 31/12/2014.
Referencia: CCG2013/EXP-062

Dotación: 6000€

12.
Título del proyecto: Nuevos algoritmos híbridos bio-inspirados para problemas de predicción en energías renovables.
Investigador Principal: Dr. Sancho Salcedo Sanz.
Entidad financiadora: Ministerio de Economía y Competitividad Competitividad (Programa Nacional de investigación fundamental no orientada).
Duración: 01/01/2014 hasta 30/06/2018.
Referencia: TIN-2014-54583-C2-2-R
Dotación: 65340€.

13.
Título del proyecto: PRICAM. Programa de Redes Inteligentes de la Comunidad de Madrid.
Investigador Principal (Subproyecto): Dr. Sancho Salcedo Sanz.
Entidad financiadora: Comunidad de Madrid
Duración: 01 / 10 / 2014 hasta 30/09/2018.
Referencia: S2013/ICE-2933/02
Dotación: 103500€.

14.
Título del proyecto: Metaheuristicas para estrategias de desarrollo de políticas de inversión TIC en LatinoAmérica.
Investigador Principal (Subproyecto): Dra. Silvia Jiménez-Fernández
Entidad financiadora: Universidad de Alcalá
Duración: 16/12/2016 hasta 25/12/2017.
Referencia: CCG2016/EXP-077
Dotación: 3200€.

15.
Título del proyecto: Nuevos algoritmos híbridos de inspiración natural para problemas de clasificación ordinal y predicción.
Investigador Principal: Dr. Sancho Salcedo Sanz y Dr. Lucas Cuadra Rodríguez
Entidad financiadora: Ministerio de Economía y Competitividad Competitividad (Programa Nacional de investigación fundamental no orientada, Excelencia).
Duración: 01/01/2018 hasta 31/12/2020.
Referencia: TIN2017-85887-C2-2-P
Dotación: 73000€.

16.
Título del proyecto: PROMINT-CM. Programa de Redes Inteligentes Comunidad de Madrid.
Investigador Principal (Subproyecto): Dra. Silvia Jiménez Fernández
Entidad financiadora: Comunidad de Madrid
Duración: 01/01/2019 hasta 31/12/2022.
Referencia: P2018/EMT-4366
Dotación: 123.475€ (Total del proyecto coordinado 870.675€)

17.

Título del proyecto: CLIMATE INTELLIGENCE Extreme events detection, attribution and adaptation design using machine learning (CLINT).
Investigador Principal: Dr. Sancho Salcedo Sanz (subproyecto UAH).
Entidad financiadora: Comisión Europea Horizon 2020 – the Framework Programme for Research and Innovation.
Duración: 01/07/2021 hasta 30/06/2025.
Referencia: 101003876 - CLINT
Dotación: 6 067 719.98 € (Proyecto Completo), 277 850.48€ (Subproyecto UAH).

18.

Título del proyecto: Nuevos algoritmos neuro-evolutivos para clasificación ordinal: aplicaciones en clima, energías limpias y medio ambiente.
Investigador Principal: Dr. Sancho Salcedo Sanz y Dra. Silvia Jiménez-Fernández
Entidad financiadora: Ministerio de Economía y Competitividad Competitividad (Programa Nacional de investigación fundamental no orientada, Excelencia).
Duración: 01/09/2021 hasta 30/8/2024.
Referencia: PID2020-115454GB-C21
Dotación: 83000€.

19.

Título del proyecto: Gemelo Digital de Almacenamiento de Energía de Batería: Inteligencia Artificial (BEST-ARIN)
Investigador Principal (UAH): Dr. Sancho Salcedo Sanz y Dra. Silvia Jiménez-Fernández (proyecto Conjunto con IMDEA Energía).
Entidad financiadora: Ministerio de Transición Ecológica (Proyectos estratégicos orientados a la transición ecológica y a la transición digital 2021).
Duración: 01/12/2022 hasta 30/11/2024.
Referencia: TED2021-131777B-C22
Dotación: 144900€.

<u>Proyectos de I+D de relevancia con Empresas y/o administraciones</u>

1.
Título del proyecto: Foro Airtel.
Investigador Principal: Dr. Aníbal R. Figueiras Vidal.
Entidad financiadora: Fundación Airtel (Actualmente Fundación Vodafone).
Duración: 12/01/1999 hasta el 30/12/2001
Referencia: S-712
Dotación: 30000 €.

2.
Título del proyecto: Aplicación de métodos de inteligencia artificial para el análisis de la solvencia en entidades aseguradoras.
Investigador Principal: Dra. M. J. Segovia-Vargas, Dr. C. Bousoño-Calzón y Dr. S. Salcedo-Sanz.
Entidad financiadora: Fundación Mapfre Estudios.
Duración: 30/01/2003 hasta el 29/01/2004
Dotación: 9000€.

3.
Título del proyecto: Evaluation of the call termination cost under different frequency licenses for the German mobile operator E-plus.
Investigador Principal: Dr. J. Antonio Portilla-Figueras.
Entidad financiadora: E-plus mobile.
Duración: 01/01/2006 hasta el 30 /05/2006.
Referencia: 8/2006
Dotación: 7500 €.

4.
Título del proyecto: Development of a mobile network cost model for the Australian Regulator ACCC.
Investigador Principal: Dr. J. Antonio Portilla-Figueras.
Entidad financiadora: ACCC (Australian Telecommunications Regulator).
Duración: 26/06/2006 hasta el 31/12/2006.
Referencia: 85/2006
Dotación: 25000 €.

5.
Título del proyecto: Development of a mobile network cost model for the Swiss Regulator BAKOM.
Investigador Principal: Dr. J. Antonio Portilla-Figueras and Dr S. Salcedo-Sanz.
Entidad financiadora: BAKOM (Swiss Communications Regulator).
Duración: 23/05/2007 hasta el 31/05/2007.
Referencia: 92/2007.
Dotación: 17000€.

6.
Título del proyecto: Development of a mobile network cost model for the Australian Regulator ACCC (prórroga).
Investigador Principal: Dr. J. Antonio Portilla-Figueras.
Entidad financiadora: ACCC (Australian Telecommunications Regulator).
Duración: 13/11/2007 hasta el 31/12/2007.
Referencia: 96/2007.
Dotación: 2500 €.

7.
Título del proyecto: The future of IP interconnection, technical, economical and public policy aspects.
Investigador Principal: Dr. J. Antonio Portilla-Figueras.
Entidad financiadora: WIK Consult GMBH.
Duración: 13/03/2007 hasta el 12/03/2008.
Referencia: 88/2008
Dotación: 3100 €.

8.
Título del proyecto: Definición de un índice de calidad del aire en la ciudad de Madrid.
Investigador Principal: Dr. Sancho Salcedo Sanz.
Entidad financiadora: Ayuntamiento de Madrid. Dirección General de la Calidad del Aire, Control y Evaluación.
Duración: 29/04/2009 hasta 30/07/2009.
Referencia: 63/2009
Dotación: 29800 €.

9.
Título del proyecto: Development of a 2G/3G mobile network cost model for the Swiss regulator BAKOM
Investigador Principal: Dr. J. Antonio Portilla-Figueras and Dr S. Salcedo-Sanz.
Entidad financiadora: WIK Consult GMBH.
Duración: 20/12/2010 hasta el 31/12/2010
Referencia: 104/2010
Dotación: 23000€.

10.
Título del proyecto: Development of a 3G mobile network cost model for the Austrian regulator RTR GMBH
Investigador Principal: Dr. J. Antonio Portilla-Figueras and Dr S. Salcedo-Sanz.
Entidad financiadora: WIK Consult GMBH.
Duración: 20/12/2010 hasta el 31/12/2010
Referencia: 94/2010
Dotación: 15000€.

11.

Título del proyecto: Estudios de Ingeniería Multidisciplinar.
Investigador Principal: Dr. Sancho Salcedo Sanz.
Entidad financiadora: Iberonova Promociones.
Duración: 07/09/2009 hasta 07/09/2010.
Referencia: 130/2009
Dotación: 62246,76€.

12.
Título del proyecto: Introducción a los algoritmos de Soft Computing.
Investigador Principal: Dr. Sancho Salcedo Sanz.
Entidad financiadora: Iberdrola Renovables.
Duración: 14/05/2009 hasta 14/05/2009.
Referencia: 72/2009
Dotación: 320€.

13.
Título del proyecto: Development of a mobile network cost model covering 2G, 3G and LTE.
Investigador Principal: Dr. J. Antonio Portilla-Figueras and Dr S. Salcedo-Sanz.
Entidad financiadora: WIK Consult GMBH.
Duración: 22/07/2011 hasta el 31/10/2012
Referencia: 118/2011
Dotación: 27000 €.

14.
Título del proyecto: Predicción de viento mediante CRO.
Investigador Principal: Dr. Sancho Salcedo Sanz.
Entidad financiadora: Iberdrola Renovables SA.
Duración: 28/09/2012 hasta 27/12/2013.
Referencia: 113/2012
Dotación: 25313,03 €.

15.
Título del proyecto: Desarrollo de nuevos sistemas de caracterización del recurso eólico, evaluación de emplazamientos específicos y predicción de viento: ETSWIND.
Investigador Principal: Dr. Sancho Salcedo Sanz.
Entidad financiadora: Etulos-Solute.
Duración: 01/07/2012 hasta 31/12/2014.
Referencia: 43/2012
Dotación: 73380€.

16.
Título del proyecto: Tratamiento de Datos Meteorológicos y Cálculo de Recurso y Producción Eólica Utilizando Técnicas de Soft Computing.
Investigador Principal: Dr. S. Salcedo-Sanz y Dr. Jose A. Portilla Figueras.
Entidad financiadora: Etulos-Solute
Duración: 21/11/2013 hasta el 31/12/2014
Referencia: 112/2013
Dotación: 22990€.

17.
Título del proyecto: Analysis of shadowing at grazing incidence to derive significant wave height.
Investigador Principal: Dr. Jose C. Nieto Borge.
Entidad financiadora: Ocean Waves
Duración: 15/10/2013 hasta el 14/05/2014
Referencia: 96/2013
Dotación: 15000€.

18.

Título del proyecto: Emisión de informes técnicos en la certificación de proyectos I+D+i
Investigador Principal: Dr. Jose A. Portilla-Figueras.
Entidad financiadora: TUV Rheinland Ibérica
Duración: 01/01/2015 hasta el 31/12/2015
Referencia: 68/2015
Dotación: 968€.

19.
Título del proyecto: Realización de Informe Pericial para D. José a. Trugeda Carrera.
Investigador Principal: Dr. Jose A. Portilla Figueras y Dr. S. Salcedo-Sanz.
Entidad financiadora: Trugeda Abogados.
Duración: 01/02/2016 hasta el 31/03/2016
Referencia: 75/2016
Dotación: 2854€.

20.
Título del proyecto: Realización del Proyecto CRO-ELM.
Investigador Principal: Dr. S. Salcedo-Sanz.
Entidad financiadora: Iberdrola
Duración: 01/09/2016 hasta el 31/12/2016
Referencia: 152/2016
Dotación: 3605,80 €.

21.
Título del proyecto: SIERRA.
Investigador Principal: Dr. S. Salcedo-Sanz y Dr. Jose A. Portilla Figueras.
Entidad financiadora: Airbus
Duración: 18/04/2017 hasta el 30/06/2017
Referencia: 57/2017
Dotación: 10059,23€.

22.
Título del proyecto: Flexener I-DE. Impacto de eventos meteo en líneas de distribución.
Investigador Principal: Dr. S. Salcedo-Sanz y Dr. Jose A. Portilla Figueras.
Entidad financiadora: Iberdrola
Duración: 39 meses, desde 1/11/2020
Referencia: 223/2020
Dotación: 48400€.

23.
Título del proyecto: Flexener II-GE. Impacto de eventos meteo en el mercado eléctrico.
Investigador Principal: Dr. S. Salcedo-Sanz y Dra. Silvia Jiménez-Fernández
Entidad financiadora: Iberdrola
Duración: 39 meses, desde 1/11/2020
Referencia: 221/2020
Dotación: 48400€.

24.
Título del proyecto: Predicción de producción eólica mediante técnicas de deep learning.
Investigador Principal: Dr. S. Salcedo-Sanz y Dr. Jorge Pérez Aracil
Entidad financiadora: Iberdrola
Duración: 4 meses, desde 1/10/2023
Referencia: -
Dotación: 8100€.

PUBLICACIONES O DOCUMENTOS CIENTÍFICO-TÉCNICOS

Revistas Internacionales incluidas en el Journal Citation Report
(Se incluye índice de impacto (JCR) ISI Web of Knowledge)

1.
S. Salcedo-Sanz, C. Bousoño-Calzón and A. R. Figueiras-Vidal, "A mixed neural genetic algorithm for the broadcast scheduling problem", IEEE Transactions on Wireless Communications, vol. 2, no. 2, pp. 277-283, 2003. (JCR: 1.232, Q1)

2.
S. Salcedo-Sanz and X. Yao, "A hybrid Hopfield network-genetic algorithm approach for the terminal assignment problem", IEEE Transactions on Systems, Man and Cybernetics, Part B, vol. 34, no. 6, pp. 2343-2353, 2004. (JCR: 1.052, Q1)

3.
S. Salcedo-Sanz, G. Camps-Valls, F. Pérez-Cruz, J. Sepúlveda-Sanchís and C. Bousoño-Calzón, "Enhancing genetic feature selection through restricted search and Walsh analysis", IEEE Transactions on Systems, Man and Cybernetics , Part C, vol. 34, no. 4, pp. 398-406, 2004. (JCR: 0.482, Q3)

4.
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S. Salcedo-Sanz, A. Aybar-Ruiz, C. Camacho-Gómez, E. Pereira, "A fractal-based mutation operator from Iterated Function Systems," MIC/MAEB, Barcelona, España, 2017.

14.
A.M. Durán-Rosal, P. A. Gutiérrez, S. Salcedo-Sanz and C. Hervás-Martínez, "An Empirical Validation of a New Memetic CRO Algorithm for the Approximation of Time Series," Conference of the Spanish Association for Artificial Intelligence (CAEPIA2018), 23-26 octubre, 2018, Granada (España)

15.
M. Dorado-Moreno, P. A. Gutiérrez, S. Salcedo-Sanz, L. Prieto and C. Hervás-Martínez, "Predicción ordinal de rampas de viento usando Echo State Networks de complejidad reducida," Conference of the Spanish Association for Artificial Intelligence (CAEPIA2018), 23-26 octubre, 2018, Granada (España)

16.
M. Diaz-Lozano, D. Guijo-Rubio, P. A. Gutiérrez, C. Casanova-Mateo, S. Salcedo-Sanz y C. Hervás-Martínez, "Algoritmos de aprendizaje automático para predicción de niveles de niebla usando ventanas estáticas y dinámicas," Conference of the Spanish Association for Artificial Intelligence (CAEPIA2018), 23-26 octubre, 2018, Granada (España)

Seminarios y Charlas Invitadas

1.
S. Salcedo-Sanz, "Una introducción a los algoritmos de Soft-Computing", Seminario Invitado Iberdrola Renovables, Octubre de 2009.

2.
S. Salcedo-Sanz, "Técnicas de inteligencia computacional en predicción de viento en parques eólicos y problemas relacionados", Seminario Invitado, Cátedra UAM-IIC en modelado y predicción, Marzo 2010.

3.

S. Salcedo-Sanz, “Algoritmos genéticos de agrupaciones (Grouping GAs) y sus aplicaciones en telecomunicaciones“, Seminario Invitado, Hands on Mobile, Tecnalia Research & Innovation, Bilbao, Noviembre de 2010.

4.
S. Salcedo-Sanz, “Problemas de predicción en energías renovables y cambio climático: aproximaciones de aprendizaje máquina”, Seminario Invitado, Programa “Akademos” Universidad Carlos III de Madrid, Septiembre 2011.

5.
S. Salcedo-Sanz, “Clasificación de patrones sinópticos con algoritmos de Soft Computing”, Seminario Invitado, 8º seminario de la cátedra UAM-IIC en modelado y predicción: la meteorología de las energías renovables, Noviembre 2011.

6.
S. Salcedo-Sanz, “Introducción a la computación evolutiva y neuronal: aplicaciones en Física de la Atmósfera”, Seminario Invitado, Ciclo de Conferencias Invitadas del Máster en Geofísica y Meteorología, Universidad Complutense de Madrid, Mayo de 2011.

7.
S. Salcedo-Sanz, “Nuevos algoritmos de computación evolutiva para problemas de agrupación y clustering” Seminario Invitado, Programa de Doctorado en Ingeniería Informática y Telecomunicación, Universidad Autónoma de Madrid, Mayo 2012.

8.
S. Salcedo-Sanz, “Métodos de Soft-Computing en Aplicaciones Reales: Despliegue Óptimo de Redes WiFi y Problemas de Predicción de Viento en Parques Eólicos” Charla Plenaria en SEMATICA 2012: Oportunidades para TIC en Entornos Tecnológicos Avanzados, Granada, España, 2012.

9.
S. Salcedo-Sanz, “Métodos de Inteligencia Computacional (Soft-Computing). Aplicaciones en Problemas de Energías Renovables”, Seminario Invitado, Iberdrola Ingeniería y Construcción, Abril 2012.

10.
S. Salcedo-Sanz, “Predicción de éxito en empresas exportadoras: Una aproximación híbrida mediante técnicas de Soft-Computing”, Conferencia Invitada en el II Workshop in Mathematical and Soft-Computing Techniques in Risk Management, Application to Actuarial Science, Noviembre 2012.

11.
S. Salcedo-Sanz, “Artificial Intelligence and Soft Computing Techniques in Wind Energy I (Methods)”, Seminario Invitado, Green Days 2012, Universidad de Novi Sad, Serbia, Julio 2012.

12.
S. Salcedo-Sanz, “Nuevos algoritmos para optimización y búsqueda basados en arrecifes de coral”, Conferencia Invitada plenaria en el Congresos Nacional de Informática (CEDI, MAEB), Salamanca, Septiembre, 2016.

13.
S. Salcedo-Sanz “Data Analytics”, Seminarios de formación en analítica de datos, (16 horas), Tecnalia Research & Innovation, Bilbao, Noviembre de 2013.

14.
S. Salcedo-Sanz “Applications of meta-heuristics in micro-grids design problems”, Charla Invitada en la Conferencia ICHSA 2017, Bilbao, Abril 2017.

15.
S. Salcedo-Sanz, “Machine Learning algorithms for prediction problems in energy applications,” Charla Invitada en la Conferencia EUROGEN 2017, Madrid, Septiembre 2017.

PERTENENCIA A SOCIEDADES CIENTÍFICAS INTERNACIONALES

Sociedad Científica: European Laboratory for Learning and Intelligent Systems (ELLIS).
Pertenencia: Fellow member, ver https://ellis.eu/members
ELLIS Program: Machine Learning for Earth and Climate Sciences
País de la Sociedad (Nodo ELLIS): Alemania

ESTANCIAS EN CENTROS EXTRANJEROS

Centro: School of Computer Science, The University of Birmingham.
Localidad: Birmingham
País: Reino Unido
Investigador receptor de la estancia: Professor Xin Yao
Fechas: 01/10/2003-30/09/2004
Duración (semanas): 52
Tema: Aplicación de heurísticos modernos de optimización a problemas de optimización combinatoria en telecomunicaciones.

PATENTES Y REGISTROS DE SOFTWARE

1.
Invención: Dispositivo y método de predicción de heladas y nieblas locales basado en computación neuronal con selección de características (Device and method for mist and frost prediction based on neural computation with features selection).
Inventores: S. Salcedo-Sanz, C. Casanova-Mateo, A. Portilla-Figueras, J. del Ser and S. Gil-López
Referencia: P201130514
País: España
Fecha: 04/05/2011
Estado: Concedida

2.
Registro de Software: Programa de ordenador RMCPO (Rellenado de huecos en series de viento).
Inventores: A. Portilla-Figueras, J. Gascón-Moreno, B. Saavedra-Moreno, L. Prieto y S. Salcedo-Sanz,
Referencia: M-9478-12
País: España
Fecha: 21/12/2012
Estado: Asiento Registral Concedido.

3.
Registro de Software: Programa de ordenador NeuCompBankrupt (Detección de banca rota en empresas).
Inventores: A. Portilla-Figueras, J. Gascón-Moreno, B. Saavedra-Moreno, M. J. Segovia-Vargas, D. Pacual-Ezama, J. M. Camacho-Miñano y S. Salcedo-Sanz,
Referencia: M-9479-12
País: España
Fecha: 21/12/2012
Estado: Asiento Registral Concedido.

4.
Registro de Software: Base de datos INIFCO-MADRID (Detección de banca rota en empresas).
Inventores: A. Portilla-Figueras, J. Gascón-Moreno, B. Saavedra-Moreno, M. J. Segovia-Vargas, D. Pacual-Ezama, J. M. Camacho-Miñano y S. Salcedo-Sanz,
Referencia: M-9514-12
País: España

Fecha: 26/12/2012
Estado: Asiento Registral Concedido.

5.
Registro de Software: Programa de ordenador CRO (Implementación del algoritmo CRO para optimización).
Inventores: S. Salcedo-Sanz,
Referencia: M-8956-14
País: España
Fecha: 22/12/2014
Estado: Asiento Registral Concedido.

PREMIOS Y RECONOCIMIENTOS

1.
Título del premio: Premio Jóvenes Investigadores de la Universidad de Alcalá
Institución que otorga el premio: Universidad de Alcalá
Importe: 4000 €
Trabajo: Premio a la trayectoria investigadora hasta los 35 años.
Fecha: 11-11-2009

2.
Título del premio: Premio Fundación 3M a la Innovación
Institución que otorga el premio: Fundación 3M
Importe: 6000 €
Trabajo: Sistema para la predicción de contaminación urbana basado en módulos de computación neuronal.
Fecha: 23-11-2010

3.
Título del premio: Premio del Consejo Social de la Universidad de Alcalá a la trasferencia de tecnología universidad – empresa.
Institución que otorga el premio: Consejo Social de la Universidad de Alcalá
Importe: 18000 €
Trabajo: Mejora de la eficiencia y gestión de parques eólicos y fotovoltaicos mediante técnicas de Soft-Computing.
Fecha: 07-06-2011

4.
Título del premio: I Certamen de divulgación científica de la Universidad de Alcalá
Institución que otorga el premio: OTRI Universidad de Alcalá
Importe: 150 €
Trabajo: Premio a la mejor noticia científica: “Predicción eficiente de temperatura con redes neuronales: infinitas aplicaciones”.
Fecha: 14-09-2011

5.
Título del premio: Premio Sacyr-Vallehermoso “Hacemos lo Imposible”
Institución que otorga el premio: Sacyr-Vallehermoso
Importe: 18000 €
Trabajo: Minimización de la Contaminación Electromagnética producida por nuevas Instalaciones de Comunicaciones Móviles en Entornos Urbanos mediante Técnicas de Computación Evolutiva.
Fecha: 05-10-2011

6.
Título del premio: 7º Concurso de Ideas para la creación de empresas de Base Tecnológica UAH
Institución que otorga el premio: Universida de Alcalá

Premio: 1er Premio modalidad Personal de la UAH
Propuesta: Nature Evolutive and Emerging Knowledge (NEEK).
Fecha: 13-11-2014

7.
Título del premio: VI Premio Accenture en Economía y Gestión de la Innovación (Finalistas)
Institución que otorga el premio: Accenture
Importe: Diploma
Trabajo: Machine Learning techniques for prediction problems in Economy: practical applications.
Fecha: 29-04-2015

8.
Título del premio: Premios del Campus de Excelencia Internacional 2015 (1er Accesit)
Institución que otorga el premio: Campus de Excelencia Internacional en Energía Inteligente UAH/URJC
Importe: 2000€ y Diploma
Trabajo: Diseño de algoritmos de Soft-Computing para problemas de predicción en energía eólica, fotovoltáica y maremotriz por olas.
Fecha: 30-09-2015

9.
Título del premio: Premios del Campus de Excelencia Internacional 2016 (2º Accesit)
Institución que otorga el premio: Campus de Excelencia Internacional en Energía Inteligente UAH/URJC
Importe: 2000€ y Diploma
Trabajo: Diseño de algoritmos de "compressed aggregation" para la predicción y el posicionamiento de generadores eólicos y fotovoltáicos en micro-grids.
Fecha: 03-10-2016

10.
Título del premio: Premios del Campus de Excelencia Internacional 2017 (2º Premio)
Institución que otorga el premio: Campus de Excelencia Internacional en Energía Inteligente UAH/URJC
Importe: 3000€
Trabajo: Redes de sensores inalámbricos: eficiencia energética en edificación.
Fecha: 11-10-2017

11.
Título del premio: Premios del Campus de Excelencia Internacional 2020 (2º Premio mejor aportación científica conjunta)
Institución que otorga el premio: Campus de Excelencia Internacional en Energía Inteligente UAH/URJC
Importe: 3000€
Trabajo: Spatio-temporal analysis of wind resource in the Iberian Peninsula with data-coupled clustering.
Fecha: 29-10-2020

12.
Título del premio: Premios del Campus de Excelencia Internacional 2021 (1er Premio mejor aportación científica conjunta)
Institución que otorga el premio: Campus de Excelencia Internacional en Energía Inteligente UAH/URJC
Importe: 3000€
Trabajo: Persistence analysis and prediction of low-visibility events at Valladolid airport, Spain.
Fecha: 21-10-2021

13.
Título del premio: Premios del Campus de Excelencia Internacional 2023 (1er Premio mejor aportación científica)
Institución que otorga el premio: Campus de Excelencia Internacional en Energía Inteligente UAH/URJC
Importe: 3000€
Trabajo: Persistence in complex systems.
Fecha: 20-11-2023

TESIS DOCTORALES DIRIGIDAS

1.
Título: Nuevas técnicas de selección de parámetros en máquinas de vectores soporte para regresión.
Doctorando: D. Emilio Gedeón Ortiz García
Financiación: Beca FPI (UAH), Beca FPU (Ministerio de Educación)
Universidad: Universidad de Alcalá
Facultad / escuela: Escuela Politécnica Superior
Director: Dr. Sancho Salcedo Sanz
Fecha de defensa: 8 de Julio de 2010

2.
Título: Mejora de algoritmos evolutivos en problemas de búsqueda de árboles óptimos: nuevos operadores sobre la codificación Dandelion.
Doctorando: D. Ángel Manuel Pérez Bellido Beca FPI (UAH), Beca FPU (Ministerio de Educación)
Universidad: Universidad de Alcalá
Facultad / escuela: Escuela Politécnica Superior
Directores: Dr. Sancho Salcedo Sanz y Dr. Antonio Portilla Figueras
Fecha de defensa: 13 de Diciembre de 2010

3.
Título: Técnicas de inteligencia computacional para el diseño óptimo de sistemas radiantes.
Doctorando: Dña. Rocío Sánchez Montero
Universidad: Universidad de Alcalá
Facultad / escuela: Escuela Politécnica Superior
Directores: Dr. Sancho Salcedo Sanz y Dr. Antonio Portilla Figueras
Fecha de defensa: 11 de Julio de 2011

4.
Título: New strategies for the aerodynamic design optimization of aeronautical configurations through soft-computing techniques. (Premio Extraordinario de Doctorado)
Doctorando: Dña. Esther Andrés Pérez
Universidad: Universidad de Alcalá
Facultad / escuela: Escuela Politécnica Superior
Directores: Dr. Sancho Salcedo Sanz y Dr. Carlos Lozano Rodríguez
Fecha de defensa: 10 de Julio de 2012

5.
Título: Development of New Evolutionary Schemes for Clustering-like problems. (Premio Extraordinario de Doctorado)
Doctorando: D. Leopoldo Carro Calvo
Financiación: Becas asociadas a diversos proyectos de investigación nacional, con la empresa Etulos Solute (Ref: UAH43/2012)
Universidad: Universidad de Alcalá
Facultad / escuela: Escuela Politécnica Superior
Directores: Dr. Sancho Salcedo Sanz y Dr. Antonio Portilla Figueras
Fecha de defensa: 16 de Abril de 2013

6.
Título: Study and Development of Advanced Meta-Heuristic Approaches for Resource Allocation in Intelligent Communication Systems. (Premio Extraordinario de Doctorado)
Doctorando: D. Javier del Ser Lorente
Universidad: Universidad de Alcalá
Facultad / escuela: Escuela Politécnica Superior
Directores: Dr. Sancho Salcedo Sanz y Dr. Antonio Portilla Figueras
Fecha de defensa: 15 de Mayo de 2013

7.
Título: Cost based optimization for strategic mobile radio access network planning using metaheuristics.
Doctorando: D. Juan Eulogio Sánchez García
Financiación: Becas asociadas a Proyectos de Investigación Internacional es con la compañía alemana Wik Consult (Refs: UAH94/2010 y UAH104/2010)
Universidad: Universidad de Alcalá
Facultad / escuela: Escuela Politécnica Superior
Directores: Dr. Antonio Portilla Figueras y Dr. Sancho Salcedo Sanz.
Fecha de defensa: 14 de noviembre de 2013

8.
Título: Grouping Harmony Search: principles, novel adaptations and practical applications. (Premio Extraordinario de Doctorado)
Doctorando: Dña. Itziar Landa Torres.
Universidad: Universidad de Alcalá
Facultad / escuela: Escuela Politécnica Superior
Directores: Dr. Sancho Salcedo Sanz y Dr. Sergio Gil López
Fecha de defensa: 19 de noviembre de 2013.

9.
Título: Técnicas de Soft-Computing para el desarrollo de redes de acceso móvil con control de la polución electromagnética.
Doctorando: Dña. María Pilar García Díaz.
Universidad: Universidad de Alcalá
Facultad / escuela: Escuela Politécnica Superior
Directores: Dr. Sancho Salcedo Sanz y Dr. Antonio Portilla Figueras
Fecha de defensa: 16 de enero de 2014.

10.
Título: Advanced meta-heuristic approaches and their application to operational optimization in forest wildfire management.
Doctorando: Dña. Miren Nekane Bilbao Marón.
Universidad: Universidad de Alcalá
Facultad / escuela: Escuela Politécnica Superior
Directores: Dr. Sancho Salcedo Sanz y Dr. Javier del Ser Lorente
Fecha de defensa: 21 de febrero de 2014.

11.
Título: Contribuciones al estudio del total de ozono en columna sobre la Península Ibérica mediante técnicas estadísticas y de Soft-Computing.
Doctorando: D. José Luís Camacho Ruíz

Universidad: Universidad de Alcalá
Facultad / escuela: Escuela Politécnica Superior
Directores: Dr. Sancho Salcedo Sanz y Dr. Emiliano Hernández Martín
Fecha de defensa: 29 de septiembre de 2014.

12.
Título: Advanced Machine Learning Techniques and Meta-heuristic Optimization for the Detection of Masquerading Attacks in Social Networks.
Doctorando: Dña. Esther Villar Rodríguez
Universidad: Universidad de Alcalá
Facultad / escuela: Escuela Politécnica Superior
Directores: Dr. Sancho Salcedo Sanz y Dr. Javier del Ser Lorente
Fecha de defensa: 11 de diciembre de 2015.

13.
Título: Metaheuristic Approaches for Energy Efficient Production Optimisation in Manufacturing Facilities.
Doctorando: D. Carlos Alberto García Santiago
Universidad: Universidad de Alcalá
Facultad / escuela: Escuela Politécnica Superior
Directores: Dr. Sancho Salcedo Sanz y Dr. Javier del Ser Lorente
Fecha de defensa: 25 de febrero de 2016.

14.
Título: Optimización del diseño y la operación de redes eléctricas inteligentes mediante Computación Evolutiva.
Doctorando: D. Ricardo Mallol Poyato
Universidad: Universidad de Alcalá
Facultad / escuela: Escuela Politécnica Superior
Directores: Dr. Sancho Salcedo Sanz y Dr. Pablo Díaz Villar
Fecha de defensa: 23 de Junio de 2016.

15.
Título: Novel evolutionary-based methods for the robust training of SVR and GMDH regressors.
Doctorando: D. Jorge Gascón Moreno
Financiacion: Beca FPI Ministerio de Educación y Ciencia.
Universidad: Universidad de Alcalá
Facultad / escuela: Escuela Politécnica Superior
Directores: Dr. Sancho Salcedo Sanz y Dr. Jose Antonio Portilla Figueras
Fecha de defensa: 6 de Octubre de 2016.

16.
Título: New Soft-computing Techniques in Wind Energy: Contributions To Wind Speed Reconstruction, Prediction and Wind Farm Design.
Doctorando: Dña. Beatriz Saavedra-Moreno
Financiación: Beca FPU Ministerio de Educación y Ciencia.
Universidad: Universidad de Alcalá
Facultad / escuela: Escuela Politécnica Superior
Directores: Dr. Sancho Salcedo Sanz y Dr. Jose Antonio Portilla Figueras
Fecha de defensa: 14 de Octubre de 2016.

17.

Título: New Hybrid Neuro-Evolutionary Algorithms for Renewable Energy and Facilities Management Problems. (Premio Extraordinario de Doctorado)
Doctorando: Dña. Laura María Cornejo-Bueno
Financiación: Contrato asociado a Proyecto de Investigación de la CAM (PRICAM, Ref: S2013/ICE-2933/02).
Universidad: Universidad de Alcalá
Facultad / escuela: Escuela Politécnica Superior
Directores: Dr. Sancho Salcedo Sanz
Fecha de defensa: 3 de Abril de 2018.

18.
Título: Contributions to the development of the CRO-SL algorithm: Engineering application problems.
Doctorando: D. Carlos Camacho-Gómez
Financiación: Contrato asociado a Proyecto de investigación del Plan Nacional (Ref: TIN-2014-54583-C2-2-R)
Universidad: Universidad de Alcalá
Facultad / escuela: Escuela Politécnica Superior
Directores: Dr. Sancho Salcedo Sanz y Dra. Silvia Jiménez-Fernández
Fecha de defensa: 10 de Julio de 2018.

19.
Título: Effective Neuro-evolutionary Schemes for Solar Radiation Estimation Problems
Doctorando: D. Adrián Aybar Ruíz
Universidad: Universidad de Alcalá
Facultad / escuela: Escuela Politécnica Superior
Directores: Dr. Sancho Salcedo Sanz y Dra. Silvia Jiménez-Fernández
Fecha de defensa: 27 de Mayo de 2021.

20.
Título: New algorithms for meteorological events analysis and modelling: studies over fog and wind data in the Iberian Peninsula
Doctorando: Dña. Sara Cornejo-Bueno
Universidad: Universidad Rey Juan Carlos
Facultad / escuela: Escuela Politécnica Superior
Directores: Dr. Sancho Salcedo Sanz y Dr. Antonio Caamaño Fernández
Fecha de defensa: 09 de Febrero de 2024.

21.
Título: Machine Learning Approaches in Prediction Problems with Human Activity Patterns
Doctorando: D. Ricardo Torres López
Universidad: Universidad de Alcalá
Facultad / escuela: Escuela Politécnica Superior
Directores: Dr. Sancho Salcedo Sanz y Dr. Jorge Pérez Aracil
Fecha de defensa: 10 de Junio de 2024.

CARGOS DE GESTIÓN

- Subdirector del Departamento de Teoría de la Señal y Comunicaciones, Universidad de Alcalá (desde 20/06/2010).
- Coordinador del Programa de Doctorado en Tecnologías de la Información y las Comunicaciones, Universidad de Alcalá, desde 2013.
- Director del Grupo de Investigación GHEODE (Grupo de Heurísticos Modernos de Optimización y Diseño de Redes) desde 2006.
- Delegado del Departamento de Teoría de la Señal para estudiantes internacionales (Programa Erasmus, 2006-2009).

EXPERIENCIA EN ORGANIZACIÓN DE ACTIVIDADES DE I+D

Organización de congresos, seminarios, jornadas, etc., científicos-tecnológicos

Título: Nature Inspired approaches to networks and telecommunications.
Tipo de actividad: Workshop dentro del Congreso Parallel Problem Solving from Nature.
Organizadores: Dr. Yong Xu and Dr. Sancho Salcedo-Sanz
Fecha: 18/09/2004
Ámbito (Nacional o Internacional): Internacional
Lugar de celebración: Birmingham, UK.

Título: "Demostración de puzzles Japoneses"
Tipo de actividad: Organizador de actividad dentro de la Semana de la ciencia 2007
Organizadores: Dr. Sancho Salcedo-Sanz, Dr. Jose A. Portilla-Figueras y D. Emilio G. Ortiz-García.
Fecha: Abril 2007
Ámbito (Nacional o Internacional): Nacional
Lugar de celebración: Madrid.

Título: Special Session on Neural-evolutionary Fusion Algorithms and Their Applications.
Tipo de actividad: Sesión especial dentro del Congreso IDEAL '07.
Organizadores: Dr. Sancho Salcedo-Sanz and Dr. Jose A. Portilla-Figueras
Fecha: 17/12/2007
Ámbito (Nacional o Internacional): Internacional
Lugar de celebración: Birmingham, UK.

Título: Workshop on “EURO-MED 2k: Review of current knowledge, available data covering the past 2k and plans for multiproxy integration”.
Tipo de actividad: Workshop (Reunión internacional de investigadores en paleoclima).
Organizadores: Dr. Sancho Salcedo-Sanz and Dr. Jose A. Portilla-Figueras
Fecha: 22-24/11/2010
Ámbito (Nacional o Internacional): Internacional
Lugar de celebración: Alcalá de Henares, Madrid, Spain.
Presupuesto: 10000$

Título: International workshop on Real Engineering Solutions based on Soft Computing Approaches (IRESSCA 2012).
Tipo de actividad: Sesión especial dentro del Congresos IEEE CAMAD 2012.
Organizadores: Dr. Sergio Gil-López y Dr. Sancho Salcedo-Sanz
Fecha: 19/09/2012
Ámbito (Nacional o Internacional): Internacional
Lugar de celebración: Barcelona, Spain.

Título: "VI Jornadas de Convergencia Ciencia-Tecnología para la Salud y la Accesibilidad" organizadas por la Fundación Vodafone España.
Tipo de actividad: Comité Organizador, Moderador de Sesión
Fecha: 11-15/04/2011
Ámbito (Nacional o Internacional): Nacional
Lugar de celebración: Alcalá de Henares, España

Título: "VII Jornadas de Convergencia Ciencia-Tecnología: Tecnologías móviles al servicio de la Integración Social" organizadas por la Fundación Vodafone España.
Tipo de actividad: Comité Organizador, Moderador de Sesión
Fecha: 29-30/11/2011
Ámbito (Nacional o Internacional): Nacional
Lugar de celebración: Guadalajara, España

Título: "VIII Jornadas de Convergencia Ciencia-Tecnología para la Salud, Accesibilidad y Autonomía Personal" organizadas por la Fundación Vodafone España.
Tipo de actividad: Codirector del Comité Organizador.
Fecha: 12-16/03/2011
Ámbito (Nacional o Internacional): Nacional
Lugar de celebración: Alcalá de Henares, España

Título: "VIII Jornadas de Convergencia Ciencia-Tecnología para la Salud, Accesibilidad y Autonomía Personal" organizadas por la Fundación Vodafone España.
Tipo de actividad: Moderador de Jornada de Trabajo.
Fecha: 12-16/03/2011
Ámbito (Nacional o Internacional): Nacional
Lugar de celebración: Alcalá de Henares, España

OTROS MÉRITOS

Acreditaciones y Habilitaciones obtenidas

1. Acreditación para el Cuerpo de Catedráticos de Universidad, en el Área de Conocimiento: Teoría de la Señal y Comunicaciones (2013).

2.
Habilitación como Profesor Titular de Universidad, en el Área de Conocimiento: Teoría de la Señal y Comunicaciones (2005).

3.
Acreditación para la figura de Profesor Ayudante Doctor, Teoría de la Señal y Comunicaciones (2004).

Proyectos fin de Carrera, Grado y Máster Dirigidos

Trabajos Fin de Carrera y Grado dirigidos:

1.
"Influencia de las transformaciones lineales en algoritmos genéticos híbridos para el problema de Steiner", Proyecto Fin de Carrera, Ramón Casero Cañas, Ingeniería de Telecomunicación, Universidad Carlos III de Madrid, 2003.

2.
"Localización óptima de controladores en redes de telefonía móvil mediante un algoritmo de temple simulado", Proyecto Fin de Carrera, Fco. Javier Antúnez Vigara, Ingeniería Técnica de Telecomunicación, Universidad de Alcalá, 2005.

3.
"Aplicaciones del algoritmo genético al análisis electromagnético y diseño de antenas," Proyecto Fin de Carrera, Jorge Navas Alvear, Ingeniería Técnica de Telecomunicación, Universidad de Alcalá, 2005.

4.
"Implementación y mejora de un algoritmo genético híbrido para el diseño de redes de comunicación con criterios de fiabilidad", Proyecto Fin de Carrera, Gabriel Manuel Moreno Ayllón, Ingeniería de Telecomunicación, Universidad de Alcalá, 2006.

5.
"Resolución del problema de asignación de terminales con codificación de grupos: problema del banquete de bodas", Proyecto Fin de Carrera, Fernando García Vázquez, Ingeniería de Telecomunicación, Universidad de Alcalá, 2006.

6.
"Estudio de algoritmo y realización de entorno gráfico para la resolución de puzzles japoneses", Proyecto Fin de Carrera, Rubén T. Ortiz García, Ingeniería Técnica de Telecomunicación, Universidad de Alcalá, 2006.

7.
"Implementación en Matlab y comparación de los algoritmos de programación evolutiva CEP y FEP", Proyecto Fin de Carrera, Laura Cuenca González, Ingeniería Técnica de Telecomunicación, Universidad de Alcalá, 2006.

8.
"Aplicación de métodos evolutivos a la combinación de parámetros acústicos en sistemas de reconocimiento del habla", Proyecto Fin de Carrera, Mónica García Serrano, Ingeniería de Telecomunicación, Universidad Carlos III de Madrid, 2007.

9.
"Desarrollo de heurísticos emergentes para la resolución de juegos de lógica", Proyecto Fin de Carrera, Emilio G. Ortiz García, Ingeniería de Telecomunicación, Universidad de Alcalá, 2007.

10.
"Análisis e implementación de un algoritmo PSO (Particle Swarm Optimization)", Proyecto Fin de Carrera, Eduardo Hernández Sanz, Ingeniería de Telecomunicación, Universidad de Alcalá, 2008.

11.
"Estudio e implementación de un algoritmo genético para problemas de agrupaciones" Proyecto Fin de Carrera, Luis E. Agustín Blas, Ingeniería de Telecomunicación, Universidad de Alcalá, 2008.

12.
"Diseño e implementación de un algoritmo Grasp para la resolución del Delay-Constrained Loop Network Problem", Proyecto Fin de Carrera, Jesús Esteso Paños, Ingeniería de Telecomunicación, Universidad de Alcalá, 2009.

13.
"Implementación de algoritmos evolutivos en el diseño de redes de comunicación e integración de los resultados en un sistema de información geográfica", Proyecto Fin de Carrera, Oscar Alonso Garrido, Ingeniería de Telecomunicación, Universidad de Alcalá, 2009.

14.
"Diseño y desarrollo de un algoritmo de Programación Genética para el juego de la Cifra Exacta", Proyecto Fin de Carrera, Alberto Poyatos Uxó, Ingeniería de Telecomunicación, Universidad de Alcalá, 2010.

15.
"Nuevos métodos de validación y entrenamiento evolutivo para algoritmos SVMr", Proyecto Fin de Carrera, Jorge Gascón Moreno, Ingeniería de Telecomunicación, Universidad de Alcalá, 2010.

16.
"Aplicación de nuevas técnicas de Soft-Computing para predicción de temperatura ambiente", Proyecto Fin de Carrera, Arturo Paniagua Tineo, Ingeniería de Telecomunicación, Universidad de Alcalá, 2011.

17.
"Desarrollo de Algoritmos Heurísticos de optimización y su aplicación al MasterMind", Proyecto Fin de Carrera, Javier Maestro Montojo, Ingeniería de Telecomunicación, Universidad de Alcalá, 2011.

18.
"Despliegue óptimo de redes GSM con criterios de minimización de emisión electromágnética mediante un algoritmo de Harmony Search", Proyecto Fin de Carrera, Juan Pablo Beades Montalban, Ingeniería de Telecomunicación, Universidad de Alcalá, 2012.

19.
"Diseño e implementación de un sistema transmisor-receptor basado en el protocolo Zigbee", Proyecto Fin de Carrera, Arturo Jiménez Gómez, Ingeniería de Telecomunicación, Universidad de Alcalá, 2012.

20.
"Estudio de un algoritmo PSO aplicado al problema de la minimización de campo eléctrico en nuevas configuraciones de antenas para telefonía móvil", Proyecto Fin de Carrera, Javier Plaza Laina, Ingeniería de Telecomunicación, Universidad de Alcalá, 2012.

21.
"Ajuste óptimo de superficie de campo eléctrico a medidas reales mediante un algoritmo de Harmony Search", Proyecto Fin de Carrera, Veselin Ivanchev Ristov, Ingeniería de Telecomunicación, Universidad de Alcalá, 2012.

22.
"Aplicación de Híper-heurísticos a la resolución del "Bubble Breaker"", Proyecto Fin de Carrera, José Manuel Matías Román, Ingeniería de Telecomunicación, Universidad de Alcalá, 2012.

23.
"Implementación de control de motor sin rodamientos en una interfaz de aplicaciones en tiempo real," Proyecto Fin de Carrera, Javier Valverde Carretero, Ingeniería de Telecomunicación, Universidad de Alcalá, 2012.

24.
"Análisis e implementación de un algoritmo genético para la ubicación de fuentes virtuales en redes WDM", Proyecto Fin de Carrera, Miguel Maluenda Millán, Ingeniería de Telecomunicación, Universidad de Alcalá, 2013.

25.
"Implementación de un Algoritmo basado en Computación Evolutiva para el Diseño de redes Ad-hoc malladas", Proyecto Fin de Carrera, Andrés Rojo Burgos, Ingeniería de Telecomunicación, Universidad de Alcalá, 2013.

26.
"Rediseño automático de configuraciones viales urbanas basado en computación evolutiva", Proyecto Fin de Carrera, Álvaro Pastor Sánchez, Ingeniería de Telecomunicación, Universidad de Alcalá, 2013.

27.
"Aplicación de algoritmos de computación neuronal para el análisis de inversiones", Proyecto Fin de Carrera, David Pascual Antón, Ingeniería de Telecomunicación, Universidad de Alcalá, 2013.

28.
"Improved crash detection system for motorcycles based on neural networks" Grado en Ingeniería de Telecomunicación, Universidad de Alcalá, César Gay Nieto, Universidad de Alcalá, 2013.

28.
"Detección automática de eventos sonoros a partir de técnicas de clasificación", Proyecto Fin de Carrera, Laura de Andrés, Ingeniería de Telecomunicación, Universidad de Alcalá, 2014.

29.
“Algoritmos de soft-computing en el aprovechamiento de la energía mareomotriz por olas”, Proyecto Fin de Grado, Grado en Tecnologías de la Telecomunicación, Manuel Montoya Catalá, Universidad de Alcalá, 2014.

30.
“Predicción óptima de radiación solar a partir de un algoritmo híbrido CRO-ELM”, Proyecto Fin de Carrera, Ingeniería de Telecomunicación, Miguel Luís Sánchez Girón, Universidad de Alcalá, 2015.

31.
“Selección de características en una red neuronal mediante algoritmos meta-heurísticos para predicción de datos en boyas oceanográficas”, Proyecto Fin de Carrera, Ingeniería de Telecomunicación, Germán Candil García, Universidad de Alcalá, 2015.

32.
“Posicionamiento óptimo de generación distribuida en micro-redes eléctricas con algoritmos evolutivos”, Proyecto Fin de Carrera, Ingeniería de Telecomunicación, Carlos Camacho Gómez, Universidad de Alcalá, 2015.

33.
“Diseño y desarrollo de nuevos algoritmos metaheurísticos para el problema de la predicción de la demanda total de energía a nivel nacional”, Grado en Ingeniería Telemática, Jesús Muñoz Bulnes, Universidad de Alcalá, 2015.

34.

“Estudio del impacto de servidumbres aeronáuticas en el diseño de parques eólicos”, Ingeniería de Telecomunicación, Israel Ocampo Estrella, Universidad de Alcalá, 2015.

35.
“Sistema de detección de rampas de viento en parques eólicos mediante técnicas de reconocimiento de patrones”, Grado en Ingeniería Informática, Alberto Barea Ropero, Universidad de Alcalá, 2016.

36.
“Sistema de predicción de rampas de viento en parques eólicos mediante algoritmos de regresión”, Grado en Ingeniería Informática, Vlad Ioan Popescu, Universidad de Alcalá, 2016.

37.
“Diseño de un algoritmo Random Forest para predicción de rampas de viento en parques eólicos”, Grado en Ingeniería Informática, Alejandro Martínez Gotor, Universidad de Alcalá, 2016.

38.
“Estudio y análisis de altura significativa de ola al paso de huracanes en el Mar Caribe y Golfo de México”, Ingeniería Técnica en Sistemas de Telecomunicación, Alberto Peña Alcaraz, Universidad de Alcalá, 2016.

39.
"Sistema de control para carro de transporte de turborreactores" Grado en Ingeniería Industrial, Alberto de Lope Galiano, Universidad de Alcalá, 2016.

40.
"Sistemas de predicción de velocidad de viento en parques eólicos a partir de bancos heterogéneos de regresores," Grado en Ingeniería Informática, Ricardo Larré Martínez, Universidad de Alcalá, 2018.

41.
"Análisis histórico de series de radiación solar en Europa a partir de datos de modelos numéricos," Grado en Ingeniería de Telecomunicación, Ana Casado Puago, Universidad de Alcalá, 2019.

42.
“Influencia de variables macro-económicas en la predicción del consumo de energía en países europeos,” Grado en Ingeniería de Telecomunicación, Aída Larriba, Universidad de Alcalá, 2019.

43.

"Diseño de un algoritmo evolutivo para optimización de antena Meander-PBG," Grado en Ingeniería de Telecomunicación, María Paz García Torres, Universidad de Alcalá, 2019.

44.
“Predicción de la radiación solar mediante algoritmos de Computación Neuronal,” Grado en Ingeniería de Telecomunicación, Ainara Puras Bartolomé, Universidad de Alcalá, 2020.

45.
"Preprocesado de datos para análisis de la Persistencia temporal de noticias en informativos de RTVE,” Grado en Ingeniería de Sistemas de Telecomunicación, Marta Sáez Olmedilla, Universidad de Alcalá, 2020.

46. "Predicción de reserva de agua embalsada mediante técnicas de Machine Learning,” Grado en Ingeniería en Tecnologías de Telecomunicación, Luis Miguel Moreno Saavedra, Universidad de Alcalá, 2020.

47.
“Migración del algoritmo CRO-SL a Python (Open Source) y aplicación en problemas de optimización no lineal,” Grado en Ingeniería Informática, Ignacio Afuera Díaz, Universidad de Alcalá, 2021.

Trabajos Fin de Máster dirigidos:

1.
"Minimización del tiempo medio de estancia en un centro de llamadas" Proyecto Fin de Master, Ángel M. Pérez Bellido, Máster Oficial en Tecnologías de la Información y las Comunicaciones, Universidad de Alcalá, 2009.

2.
"Optimización de redes de comunicación mediante algoritmos evolutivos", Proyecto fin de Máster, Leopoldo Carro Calvo, Máster Oficial en Tecnologías de la Información y las Comunicaciones, Universidad de Alcalá, 2010.

3.
"Desarrollo e implementación de un heurístico de optimización basado en un sistema de infección por virus", Proyecto Fin de Máster, Claudia Díaz Payano, Máster Oficial en Tecnologías de la Información y las Comunicaciones, Universidad de Alcalá, 2010.

4.
"Nuevos algoritmos evolutivos para problemas de clustering particional y borroso", Proyecto Fin de Máster, Luis E. Agustín-Blas, Máster Oficial en Tecnologías de la Información y las Comunicaciones, Universidad de Alcalá, 2011.

5.
"Desarrollo de un algoritmo GMDH con hiper-heurísticos para problemas de regresión", Proyecto Fin de Máster, Jorge Gascón Moreno, Máster Oficial en Tecnologías de la Información y las Comunicaciones, Universidad de Alcalá, 2011.

6.
"Caracterización del recurso en parques eólicos mediante técnicas de Soft-Computing", Proyecto Fin de Máster, Beatriz Saavedra Moreno, Máster Oficial en Tecnologías de la Información y las Comunicaciones, Universidad de Alcalá, 2012.

7.
"Programación didáctica 3º ESO. Tecnologías" Proyecto Fin de Máster, Juan Vicente Nieto Pérez, Máster Universitario de Formación de Profesorado de ESO, Bachillerato, Formación Profesional y Enseñanza de Idiomas, Universidad de Alcalá, 2010.

8.
"Programación para Tecnología de 1º Educación Secundaria Obligatoria" ,Proyecto Fin de Máster, Víctor Mayor Redondo, Máster Universitario de Formación de Profesorado de ESO, Bachillerato, Formación Profesional y Enseñanza de Idiomas, Universidad de Alcalá, 2010.

9.
"Jefotecs TV: Una nueva herramienta de video blog educacional", Proyecto Fin de Master, Jonathan Bar-Magen Numhauser, Máster Universitario de Formación de Profesorado de ESO, Bachillerato, Formación Profesional y Enseñanza de Idiomas, Universidad de Alcalá, 2012.

10.
“Selección de características mediante GGAs para predicción óptima de radiación solar”, Proyecto Fin de Máster, Adrián Aybar Ruíz, Máster Universitario en Ingeniería de Telecomunicación, Universidad de Alcalá, 2015.

11.
“Influencia de la capacidad instalada de generación de fuentes renovables sobre los precios del mercado eléctrico,“ Trabajo Fin de Máster, Miguel Ángel Fernández Vela, Máster Universitario en Ingeniería Industrial, Universidad de Alcalá, 2020.

12.

"Predicción de nivel de agua embalsada para producción de energía hidroeléctrica mediante modelos ARMA", Trabajo Fin de Máster, Máster Universitario en analítica de Negocio y Grandes Volúmenes de Datos, Bárbara Morales Díaz, Universidad de Alcalá, 2020.

13.
"Predicción de mínima visibilidad en el aeropuerto de Valladolid usando técnicas de aprendizaje automático" Trabajo Fin de Máster, Máster Universitario en Ingeniería de Telecomunicación, Juan Ignacio Fraile Herrán, Universidad de Alcalá, 2020.

Revisor de las siguientes revistas internacionales

- IEEE Transactions on Evolutionary Computation.
- IEEE Transactions on Neural Networks.
- IEEE Transactions on Wireless Communications.
- IEEE Transactions on Signal Processing.
- IEEE Transactions on Vehicular Technology.
- IEEE Transactions on Systems, Man and Cybernetics, part B.
- Information Sciences.
- Journal of Zheijang University.
- IEEE Communications Letters.
- INFORMS Journal on Computing.
- International Journal of Neural Systems.
- Computers & Operations Research.
- Applied Soft Computing.
- Soft Computing.
- Engineering Applications of Artificial Intelligence.
- Journal of the Franklin Institute
- Energy.
- Applied Energy.
- Neurocomputing.
- Enterprise Information Systems.
- Expert Systems with Applications
- Knowledge-based Systems.

Becas y ayudas recibidas

Beca: Beca de la Fundación Airtel (ahora fundación Vodafone).
Centro de adscripción: Departamento de Teoría de la Señal y Comunicaciones.
Organismo: Universidad Carlos III de Madrid.

Período de disfrute: Octubre de 1999 a Septiembre de 2001.

Beca: Beca Postdoctoral del Ministerio de Educación Cultura y Deportes.
Centro de adscripción: School of Computer Science.
Organismo: The University of Birmingham.
Período de disfrute: 1 de Octubre de 2003 a 30 de Septiembre de 2004.

Cursos y seminarios recibidos

- Curso Black-Board Online, Universidad de Alcalá, Marzo-Junio de 2009.
- Certificado de Aptitud Pedagógica, Universidad Complutense de Madrid, 180 horas. Junio de 2003.
- Curso: "Proyecto docente y evaluación por portafolio", organizado por la Universidad Carlos III de Madrid, 8 horas, Junio de 2003.
- Curso: "Jornadas de innovación docente", organizado por la Universidad Carlos III de Madrid, 8 horas, Febrero de 2003.
- Curso: "Taller de didáctica", organizado por la Universidad Carlos III de Madrid, 6 horas, Marzo de 2003.
- Curso: "Iniciación a la publicación en web: creación de páginas", organizado por la Universidad Carlos III de Madrid, 9 horas, Mayo de 2003.
- Curso: "Sesión de Aula Global", organizado por la Universidad Carlos III de Madrid, 8 horas, Febrero de 2003.
- Curso: "Aprendizaje basado en problemas", organizado por la Universidad Carlos III de Madrid, 8 horas, Junio de 2003.
- Curso de verano de la Universidad Complutense: "Computación Natural", 6-8 Agosto de 2001. 18 horas.
- Curso de verano de la Universidad Complutense: "El niño: climatología, efectos y predicción", 2-6 Agosto de 1999. 30 horas.
- Curso "Simulation of wireless communications systems", 24, 25 y 26 de Mayo de 1999, Universidad Carlos III de Madrid.
- First Certificate in English, University of Cambridge internacional examinations, Junio de 2000.
- Full-time course in general English, University of Exeter, 31 Julio 2000 al 25 Agosto 2000.

Parte A. DATOS PERSONALES

Fecha del CVA	09/2022

Nombre y apellidos	Matilde Sánchez Fernández		
Núm. identificación del investigador		Researcher ID	0000-0003-1617-6273
		Código Orcid	B-1695-2008

A.1. Situación profesional actual

Organismo	Universidad Carlos III de Madrid			
Dpto./Centro	Escuela Politécnica Superior			
Dirección	Avenida de la Universidad, 30, Leganés, 28911			
Teléfono	+34916249173	correo electrónico	mati@tsc.uc3m.es	
Categoría profesional	Catedrática		Fecha inicio	03/2022
Espec. cód. UNESCO	3325			
Palabras clave	Simulación de sistemas de Comunicaciones, Comunicaciones móviles, Sistemas MIMO			

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

Licenciatura/Grado/Doctorado	Universidad	Año
Ingeniero de Telecomunicación	Universidad Politécnica de Madrid	1996
Doctor Ing. Telecomunicación	Universidad Politécnica de Madrid	2001

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

- Evaluación positiva de la actividad investigadora CNEAI: 2001-2006, 2007-2012 y 2013-2018.
- Evaluación positiva de la actividad de transferencia CNEAI: 2010-2015.
- Citas totales: 1238 (Google Scholar)
- Promedio de citas/año durante los últimos 5 años: 130 (Google Scholar)
- Publicaciones en primer cuartil (Q1) durante los últimos 5 años: 6
- Índice h: 17 (Google Scholar)

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

Matilde Sánchez Fernández obtuvo sus títulos de Ingeniera de Telecomunicación y Doctora Ingeniera de Telecomunicación por la Universidad Politécnica de Madrid en 1996 y 2001 respectivamente. En el año 2000 se incorpora a la Universidad Carlos III de Madrid, donde es Catedrática desde el año 2022, impartiendo docencia en grado y postgrado relacionada con la teoría de la comunicación y las comunicaciones digitales. Anteriormente, fue ingeniera de telecomunicaciones en Telefónica. Ha realizado varias estancias de investigación en el Information and Telecommunication Technology Center, University of Kansas, Lawrence (1998), Bell Laboratories, Crawford Hill, NJ (2003 - 2006, 2015), Centre Tecnologic de Telecomunicacions de Catalunya, Barcelona, España (2007), Princeton University, Princeton, NJ (2011) y Pontificia Universidad Católica de Valparaíso (2022). Sus intereses de investigación actuales son el procesado de señal, los sistemas MIMO, el modelado de canales en comunicaciones inalámbricas y la teoría de juegos y las técnicas de aprendizaje automático aplicadas a las comunicaciones. En estos campos, ha sido (co) autora de más de 50 contribuciones en revistas y conferencias internacionales, es titular de 4 patentes y ha participado en 30 proyectos de investigación siendo coordinadora de 5 de ellos. Ha recibido el Premio Bell Labs 2014, un concurso internacional para solicitar ideas impactantes que tengan el potencial de cambiar la forma en que vivimos, trabajamos y nos comunicamos entre nosotros.

Parte C. MÉRITOS MÁS RELEVANTES *(ordenados por tipología)*

C.1. Publicaciones

1. M. Sánchez-Fernández, V. Jamali, J. Llorca, A. Tulino, Gridless Multidimensional Angle of Arrival Estimation for Arbitrary 3D Antenna Arrays, IEEE Transactions on Wireless Communications, vol. 20, no. 7, pp. 4748-4764, 2021.
2. A. Vega Delgado, M. Sánchez-Fernández, L. Venturino, A. Tulino, Super-resolution in automotive pulse radars, IEEE Journal of Selected Topics in Signal Processing, vol. 15, no. 4, pp. 913 - 926, 2021.
3. J. J. Murillo-Fuentes, I. Santos, J. C. Aradillas, M. Sánchez-Fernández, A Low-Complexity Double EP-based Detector for Iterative Detection and Decoding in MIMO, IEEE Transactions on Communications, vol. 69, no. 3, pp. 1538-1547, Marzo 2021.
4. E. Crespo-Bardera, A. Garrido Martín, A. Fernández Durán, E. Rajo Iglesias, M. Sánchez-Fernández, Design and Analysis of Conformal Antenna for Future Public Safety Communications, IEEE Antennas and Propagation Magazine, no. 8, 2020.
5. E. Crespo-Bardera, M. Rodríguez, M. Sánchez-Fernández, E. Rajo-Iglesias, R. Feick, R. Valenzuela, Empirical Rates Characterization of Wearable Multi-Antenna Terminals for First-Responders, IEEE Access, vol.7, pp. 6990-7000, 2019.
6. E. Crespo-Bardera, A. Vega-Delgado, A. Garrido Martín, A. Fernández-Durán, M. Sánchez-Fernández, Textile multi-antenna Technology and Relaying Architectures for Emergency networks, Wireless Communications and Mobile Computing, pp. 1-7, 2019.
7. A. Vega Delgado, M. Sánchez-Fernández, J. Llorca, A. Tulino, Feasible Transmission Strategies for Downlink MIMO in Sparse Millimeter Wave Channels, IEEE Communications Magazine, vol. 56, no. 7, pp. 49 – 55, 2018.
8. J. Céspedes, P. M. Olmos, M. Sánchez-Fernández, Fernando Perez-Cruz, Probabilistic MIMO Symbol Detection with Expectation Consistency Approximate Inference, IEEE Transactions on Vehicular Technology, vol. 67, no. 4, pp. 3481 - 3494, 2018.
9. M. Sánchez-Fernández, A. Tulino, E. Rajo-Iglesias, J. Llorca, A. García Armada, Blended Antenna Wearables for an Unconstrained Mobile Experience, IEEE Communications Magazine, vol. 55, no. 4, pp. 160 - 168, 2017.
10. G. Robles, J. M. Fresno, M Sánchez-Fernández, J. M. Martínez-Tarifa, Antenna Array Layout for the Localization of Partial Discharges in Open-Air Substations, Sensors, 2016.
11. S. Zazo, S. Valcarcel Macua, M. Sánchez-Fernández, J. Zazo, Dynamic Potential Games with Constraints: Fundamentals and Applications in Communications, IEEE Transactions on Signal Processing, vol. 64, no. 14, pp. 3806 - 3821, 2016.
12. M. L. Pablo-González, M. Sánchez-Fernández, E. Rajo-Iglesias, Combination of the three types of diversity to design high capacity compact MIMO terminals, IEEE Antennas and Wireless Propagation Letters, vol. 13, pp. 1309-1312, 2014
13. J. Céspedes, P. M. Olmos, M. Sánchez-Fernández, F. Perez-Cruz, Expectation Propagation Detection for High-order High-dimensional MIMO Systems, IEEE Transactions on Communications, vol. 62, no. 8, pp. 2840-2849, Agosto 2014
14. G. Robles, M. Sánchez-Fernández, E. Rajo-Iglesias, M. V. Rojas-Moreno, R. Albarracín, J.M. Martínez-Tarifa, Antennas parametrization for the detection of partial discharges, IEEE Transactions on Instrumentation & Measurement, pp. 932-941, Mayo 2013
15. A. García Armada, M. Sánchez-Fernández, R. Corvaja, Constrained Power Allocation Schemes for Coordinated Base Station Transmission using Block Diagonalization, EURASIP Journal on Wireless Communications and Networking, Agosto 2011
16. V. Gil Jiménez, J. Fernández-Getino García, A. García Armada, R. P. Torres Jiménez, J.J. García Fernández, M. Sánchez-Fernández, M. Domingo Gracia, O. Fernández Fernández, A MIMO-OFDM Testbed, Measurements and System Considerations for Outdoor-Indoor WiMAx, EURASIP Journal on Wireless Communications and Networking, Enero 2010
17. O. Quevedo Teruel, M. Sánchez-Fernández, Mª L. de Pablo González, E. Rajo-Iglesias, Alternating Radiation Patterns to overcome angle of arrival uncertainty, IEEE Antennas and Propagation Magazine, pp. 236-242, Febrero 2010
18. M. Lázaro, M. Sánchez-Fernández, A. Artés Rodríguez, Optimal Sensor Selection in Binary Heterogeneous Sensor Networks, IEEE Transactions on Signal Processing, pp. 1577 – 1587, Abril 2009

19. V. Gil Jiménez, J. Fernández-Getino García, M. Sánchez-Fernández, A. García Armada, Efficient Implementation of Complementary Golay Sequences for PAR Reduction and Forward Error Correction in OFDM-based WLAN systems, International Journal of Electronics and Communications, pp. 683 -694, Octubre 2008
20. M. Sánchez-Fernández, E. Rajo-Iglesias, O. Quevedo-Teruel, M. L. Pablo-González, Spectral Efficiency in MIMO Systems using space and pattern diversity under compactness constraints, IEEE Transactions on Vehicular Technology, pp. 1637-1645, Mayo 2008
21. E. Rajo-Iglesias, O. Quevedo-Teruel, M. Sánchez-Fernández, Compact Multimode Patch Antennas for MIMO Applications, IEEE Antennas and Propagation Magazine, pp. 197-205, Abril 2008
22. M. Sánchez-Fernández, M. Aguilera Forero, A. García Armada, Performance Analysis and Parameter Optimization of DLL and MEDLL in Fading Multipath Environments for Next Generation Navigation Receivers, IEEE Transactions on Consumer Electronics, Noviembre 2007
23. A. García-Armada, B. Bardón-Rodríguez, V. P. Gil-Jiménez, M. Sánchez-Fernández, Modelling, performance analysis and design of WPAN systems, Wireless Personal Communications Journal, Special Issue on “Advances in Wireless Communications: Enabling Technologies for 4G, pp. 367-386, Agosto 2007
24. M. Sánchez Fernández, Santiago Zazo, Reinaldo Valenzuela, Performance comparison between beamforming and spatial multiplexing for the downlink in wireless cellular systems, IEEE Transactions on Wireless Communications, pp. 2427 -2431, Julio 2007
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1. **C.2. Proyectos** (últimos 15 años)

2. Energy and cost-efficient communications with global coverage (IRENE-EARTH), Financiación: Ministerio de Ciencia e Innovación PID2020-115323RB-C33, Participantes: CTTC, Universidad Carlos III de Madrid, y Univ. Islas Baleares, septiembre 2021 – agosto 2023. IP: **M. Sánchez Fernández** (UC3M)**.**
3. New RAN TEchniques for 5G UltrA-dense Mobile networks (TeamUp5G), Financiación: Acciones Marie Sklodowska Curie (MSCA) H2020-MSCA-ITN-2018, enero 2019 – diciembre 2022.
4. MadridFlightOnChip, Financiación: Comunidad de Madrid, Dirección General de Investigación, noviembre 2019 - enero 2022.
5. Interfaz radio para sistemas híbridos Terrestre/Satélite de 5G y futuros (TERESA), Financiación: Ministerio de Economía, Industria. y Competitividad, TEC2017-90093-C3-2-R, Participantes: CTTC, Universidad Carlos III de Madrid, y Univ. Islas Baleares, Enero 2018 - Diciembre 2020, IP: M. J. Fernández-Getino García y A. García Armada (UC3M).
6. System for virtual TELEportation of RESCUER for inspecting coal mine areas a ected by catastrophic events (TELERESCUER), Financiación: Comisión de la Unión Europea, RFCR-CT-2014-00002. Participantes: 5 centros de investigación de varios países, Universidad Carlos III de Madrid, Abril 2015-Junio 2017, IP: A. García Armada.
7. Comunicaciones masivas inalámbricas entre máquinas (MACHINE), Financiación: Acción Estratégica Economía y Sociedad Digital. Ministerio de Industria, Energía y Turismo. TSI-100102-2015-017. Participantes: Alcatel-Lucent, Universidad Carlos III de Madrid (Subcontratada), Octubre 2015- Diciembre 2017, IP: A. García Armada (UC3M)
8. Comunicaciones Inalámbricas en Entornos de Seguridad y Emergencias (CIES), Financiación: Convocatoria Retos-Colaboración del Programa Estatal de Investigación, Desarrollo e Innovación Orientada a los Retos de la Sociedad, Plan Estatal de Investigación Científica y Técnica y de Innovación 2013-2016, Ministerio de Economía y Competitividad. RTC-2015-4213-7. Participantes: Alcatel-Lucent, Universidad Carlos III de Madrid, Septiembre 2015 – Diciembre 2017, IP: **M. Sánchez Fernández**

9. Dispositivo textil de alta capacidad basado en técnicas MIMO masivas, Financiación: Proyectos `Explora Ciencia" y ``Explora Tecnología". Programa Estatal de Fomento de la Investigación científica y técnica de excelencia. Subprograma estatal de generación del conocimiento. TEC2014-61776-EXP, Participantes: Universidad Carlos III de Madrid, Junio 2015 – Mayo 2017, IP: **M. Sánchez Fernández**
10. Tecnologías habilitadoras para comunicaciones de acceso compartido licenciado y no licenciado, Financiación: Proyectos I+D+I - Programa Estatal de Investigación, Desarrollo e Innovación Orientada a los Retos de la Sociedad. TEC2014-59255-C3-1-R, Participantes: Universidad Carlos III de Madrid, Centre Tecnològic de Telecomunicacions de Catalunya, Enero 2015 – Septiembre 2018, IP: A. García Armada.
11. Optimización de servicios multiusuario y multimedia sobre LTE y LTE-advanced (LTEXTREME), Financiación: Subprograma INNPACTO, Ministerio de Economía y Competitividad. IPT-2012-0525-430000, Participantes: Alcatel-Lucent, Universidad Carlos III de Madrid, Universidad Politécnica de Madrid, Julio 2012 – Diciembre 2015, IP: A. García Armada
12. Conceptos radio generales para comunicaciones móviles eficientes energéticamente (GRE3N). Subproyecto: Aspectos a nivel de sistema (GRE3N - SYST), Financiación: Convocatoria de ayudas de Proyectos de Investigación Fundamental no orientada. VI Plan Nacional de Investigación Científica, Desarrollo e Innovación Tecnológica 2008-2011, TEC2011-29006-C03-03, Participantes: Universidad Politécnica de Cataluña (coordinador), Universidad Carlos III de Madrid, Centre Tecnològic de Telecomunicacions de Catalunya, Enero 2011 – Septiembre 2015, IP: V. Gil Jiménez
13. EBM4G: ESTACIONES BASE MULTI-ESTÁNDAR 4G LTE/802.16m, Financiación: Acción Estratégica de Telecomunicaciones y Sociedad de la Información. Año 2010 - Avanza Competitividad I+D+I., Participantes: Albentia Systems, Tradia Telecom, Universidad Carlos III de Madrid, Universidad Politécnica de Madrid, Enero 2010 – Diciembre 2011, IP: A. García Armada
14. MIMO Distribuido para Comunicaciones Móviles de Banda Ancha (MAMBO 3), Entidad Financiadora: Convocatoria 2008 de ayudas para apoyar las líneas de I+D en el programa de creación y consolidación de grupos de investigación de la Universidad Carlos III de Madrid, CCG08-UC3M/TIC-4069., Participantes: Departamento de Teoría de la Señal y Comunicaciones, Universidad Carlos III de Madrid, Enero 2009 – Diciembre 2009, IP: **M. Sánchez Fernández**
15. Multi-carrier systems with multi-antenna diversity and adaptive coding: filter-bank and OFDM technologies (MULTI-ADAPTIVE). Subproyecto 3: HIgh Spectral Efficiency techniques for advanced OFDM systems (HISE-OFDM), Financiación: Convocatoria de ayudas de Proyectos de Investigación Fundamental no orientada. VI Plan Nacional de Investigación Científica, Desarrollo e Innovación Tecnológica 2008-2011, TEC2008-06327-C03-02/TEC., Participantes: Universidad Politécnica de Cataluña (coordinador), Universidad Carlos III de Madrid, Centre Tecnològic de Telecomunicacions de Catalunya Enero 2009 – Diciembre 2011, IP: **M. Sánchez Fernández (UC3M)**
16. Foundations and Methodologies for Future Communication and Sensor Networks (COMONSENS), Financiación: CONSOLIDER-INGENIO 2010, CONVOCATORIA 2008, CSD2008-00010., Participantes: Universidad Carlos III de Madrid, Universidad Politécnica de Cataluña (coordinador), UVEG, UDC, UVIGO, UC, UPF, CEIT, US, UPM, Octubre 2008 – Septiembre 2013, IP: Joaquín Míguez Arenas (UC3M)
17. SIMBAD, Financiación: Convocatoria PROFIT, Ministerio de Industria, Turismo y Comercio, FIT-330210-2007-19., Participantes: HISPASAT, ACORDE, HELISURESTE CMA, DESARROLLO Y APLICACI ÓN DE SISTEMAS, Universidad Carlos III de Madrid, Universidad de Cantabria, Enero 2007 – Diciembre 2008, IP: A. García Armada
18. TelMAX: Sistema de Comunicaciones móviles profesionales de banda ancha, Financiación: Programa CENIT, Participantes: Teltronic, Indra, Ikusi, At4 Wireless (Cetecom), Socintec, Acorde, Satec, Scatilabs, Robotiker, Centre Telecomunicacions Generalitat Cat, Centro Politecnico Superior, Unizar, Universidad Politécnica de Cataluña, Universidad de Málaga Universidad de Sevilla, Universidad Carlos III, Universidad Cantabria, 2007-2010, IP: A. García Armada

C.3. Contratos (últimos 15 años)

1. Antenas de alto rendimiento para frecuencias privadas de Servicios Públicos (GENIE), Empresa: Nokia Spain, S.A. Participantes: Departamento de Teoría de la Señal y Comunicaciones, Universidad Carlos III de Madrid, junio 2022 (24 meses), IP: **M. Sánchez Fernández**
2. Optimization of massive MIMO in millimeter waves for 5G radio access systems (AMATISTA), Empresa: Nokia Spain, S.A. Participantes: Departamento de Teoría de la Señal y Comunicaciones, Universidad Carlos III de Madrid, julio 2020 (20 meses). IP: Eva Rajo Iglesias.
3. 5G Antennas for fixed internet access with capacity upgrade, Nokia, Empresa: Nokia Spain, S.A. Participantes: Departamento de Teoría de la Señal y Comunicaciones, Universidad Carlos III de Madrid, julio 2020 (22 meses). IP: Eva Rajo Iglesias.
4. Technologies for Affordable Broadband Access, TREFOIL, Empresa: Nokia Spain, S.A. Participantes: Departamento de Teoría de la Señal y Comunicaciones, Universidad Carlos III de Madrid, abril 2020 (20 meses). IP: Eva Rajo Iglesias.
5. Diseño de un demodulador para acceso a internet inalámbrico a través de la luz procedente de luminarias públicas, Empresa: DLED Soluciones S.L., Participantes: Departamento de Teoría de la Señal y Comunicaciones, Universidad Carlos III de Madrid, junio 2015 (8 meses), IP: **M. Sánchez Fernández**
6. Smart Li-fi: Acceso a Internet inalámbrico a través de la luz procedente de luminarias públicas, Empresa: UVAX CONCEPTS S.L., Participantes: Departamento de Teoría de la Señal y Comunicaciones, Universidad Carlos III de Madrid, Febrero 2014 (12 meses), IP: **M. Sánchez Fernández**
7. Investigación para el control automatizado de procesos agrícolas, Empresa: Nethalis Solutions S.L, Participantes: Departamento de Teoría de la Señal y Comunicaciones, Universidad Carlos III de Madrid, Septiembre 2009 (5 meses), IP: A. García Armada
8. Consultoría y Apoyo para comunicaciones de emergencia, Empresa: Red Eléctrica de España, S.A., Participantes: Departamento de Teoría de la Señal y Comunicaciones, Universidad Carlos III de Madrid, Enero 2008 (8 meses), IP: A. García Armada
9. Desarrollo de nuevos sistemas de codificación de canal para tecnología xDSL CSS-QM, Empresa: SIDSA, Participantes: Departamento de Teoría de la Señal y Comunicaciones, Universidad Carlos III de Madrid, Abril 2007 (12 meses), IP: M. J. Fernández-Getino García

C.4. Patentes

1. Inventores: A. Tulino, M. Sánchez Fernández, J. Llorca, H. Huang, Title: Super-resolution delay-doppler-azimuth-elevation estimation via atomic norm Minimization, Application ID: P201431806. Propietario: Nokia.
2. Inventores (p.o. de firma): A. García Armada, M. Sánchez Fernández, R. Corvaja, Título: Método de Transmisión Conjunta, N. de solicitud: P201031785, País de prioridad: España, Fecha de prioridad: 1 de diciembre de 2010, Entidad titular: Universidad Carlos III de Madrid, Estado: CONCEDIDA, Fecha concesión: 30 de marzo de 2012, Fecha fin vigencia: 24 de septiembre de 2029
3. Inventores (p.o. de firma): M. Sánchez Fernández, E. Rajo Iglesias, A. García Armada, Título: Método y sistema para aumentar la capacidad de enlace ascendente entre un terminal de usuario y una estación base, N. de solicitud: P201431806, Entidad titular: Universidad Carlos III de Madrid, Estado: concedida.
4. Inventores (p.o. de firma): A. García Armada, M. Luz Pablo González, M. Sánchez Fernández, R. Corvaja, Ignacio Berberana Fernández Murias, Título: Método para Optimizar la Asignación de Potencias de Flujos de Usuario Transmitidos desde Estaciones Base en Sistemas de Transmisión de Estación Base Coordinada, N. de solicitud: P201131183, Entidad titular: Telefónica, Estado: concedida.

C.5. Estancias en Centros de investigación

1. Pontificia Universidad Católica de Valparaíso, January 2022 (1 mes).
2. Wireless Communications Research Department, Bell-Labs, New Jersey, EEUU, Mayo 2015 (12 semanas). Financiado por: Estancias de movilidad de profesores e

investigadores seniores en centros extranjeros de enseñanza superior e investigación, incluido el Programa Salvador de Madariaga 2014.
3. Universidad de Princeton, Nueva Jersey, EEUU, Febrero 2011 (6 meses). Financiado por: Programa Nacional de Movilidad de Recursos Humanos de Investigación de 2010.
4. Centre Tecnològic de Telecomunicacions de Catalunya, Barcelona, España, Abril 2007, (12 semanas). Financiado por: Centre Tecnològic de Telecomunicacions de Catalunya.
5. Wireless Communications Research Department, Bell-Labs, New Jersey, EEUU, Marzo 2006 (10 semanas), Marzo 2005 (12 semanas). Abril 2004 (8 semanas), Junio 2003 (10 semanas)
6. University of Kansas, Kansas, EEUU, Agosto 1998 (1 año). Financiado por: Electrical Engineering and Computer Science Department, University of Kansas.

C.6. Tesis Doctorales Dirigidas

1. Adrián Vega Delgado: Atomic norm decomposition for sparse model reconstruction applied to positioning and wireless communications, Doctorado en Multimedia y Comunicaciones, Universidad Carlos III de Madrid, 2022.
2. Estefanía Crespo Bardera: Large-scale MIMO textile technology for enhanced terminals, Doctorado en Multimedia y Comunicaciones, Universidad Carlos III de Madrid, 2019.
3. Javier Céspedes Martín: Approximate Inference in Massive MIMO Scenarios with Moment Matching Techniques, Doctorado en Multimedia y Comunicaciones, Universidad Carlos III de Madrid, 2017 (co-dirección con Pablo Martínez Olmos).
4. M Luz de Pablo González: Mejoras de diseño en sistemas inalámbricos de última generación basados en MIMO: estudio de terminales compactos y gestión de interferencias en esquemas coordinados, Doctorado en Multimedia y Comunicaciones, Universidad Carlos III de Madrid, 2015 (co-dirección con Ana García Armada).

C.7. Cargos de Gestión

1. Vicerrectora de Internacionalización y Universidad Europea. Universidad Carlos III de Madrid. (abril 2019-actualidad)
2. Vicerrectora de Relaciones Internacionales y Cooperación. Universidad Carlos III de Madrid. (Mayo 2015-abril 2019)
3. Vicerrectora Adjunta de Relaciones Internacionales. Universidad Carlos III de Madrid. (Septiembre 2014-abril 2015)
4. Subdirectora Académica del Departamento de Teoría de la Señal y Comunicaciones, Universidad Carlos III de Madrid. (Septiembre 2009-Diciembre 2010), (Septiembre 2012-Septiembre 2014)
5. Secretaria Académica del Departamento de Teoría de la Señal y Comunicaciones, Universidad Carlos III de Madrid. (Febrero-Septiembre 2009)