UNIVERSIDAD DE GRANADA

RESEARCHING GROUP ON "CIRCUITS AND SYSTEMS FOR INFORMATION PROCESSING"
(CASIP TIC-117)
DEPARTMENT OF COMPUTER ARCHITECTURE AND COMPUTER TECHNOLOGY

1. Introduction

The group CASIP is officially recognized as researching group by the Regional Government (Junta de Andalucía) with reference TIC-117, and is one of the groups included in the Researching Thematic Unit on Advanced Computing Architectures and Smart Embedded Systems (ACASES) of the Research Center for Information and Communications Technologies of the University of Granada (CITIC-UGR, http://citic.ugr.es/). The group, led by Dr. Miguel Damas Hermoso, is composed by members of the Department of Computer Architecture and Computer Technology (https://atc.ugr.es) teaching subjects related with Computer Technology and Architecture, High Performance Computing, Application Specific Integrated Circuits and Systems, Control Systems, Operating Systems and Programming on the Graduate studies of Computer Engineering, Electronics Engineering, Telecommunications Engineering, Physics and Chemistry, and some university master's degrees.

In the present year (2022), the group CASIP is composed by 47 members (of which 41 are PhD) and collaborators. Among the members, there are 11 full professors and 20 associate professors. Ten members have received the Graduate Extraordinary Prize, and ten have received the Doctorate Extraordinary Prize.

The mission of the group CASIP is to develop high quality researching, developing and innovation activities in areas of Information and Communication Technologies (ICT) for the advancement of scientific and technological knowledge, and to improve the quality of life of the citizens and the competitiveness of companies in our socio-economic environment. The areas of interest of CASIP are the following ones:

- High Performance Architectures and Distributed Systems.
  - Advanced implementation of network interfaces and distributed file systems.
  - High performance computing (HPC) and novel architectures and algorithms in bioengineering, biomedicine and bioinformatics.
  - Application-Specific embedded systems for smart vision sensors, robotics and instrumentation.
  - Safety embedded systems for avionics, automotive or industry.
  - Mobile and Cloud computing infrastructure.
- Neural Engineering.
  - Computational Neuroscience.
  - Brain simulation.
  - Brain Computer Interface (BCI) technologies and applications.
  - Neuromorphicengineering.
- Advanced Monitoring and Control Systems.
  - Embedded systems for control of distributed networks.
  - Online self-organizing adaptive smart embedded controllers.
  - Inference behaviour in sensor networks for monitoring in smart spaces.
  - Control and monitoring of large scientific infrastructures.
  - Remote monitoring and control of environmental parameters for energy efficient buildings and risk prevention.

The target applications of CASIP belong to the following areas:

- e-Health and well-being.

- Computer-aided medical diagnosis.
- Scientific Instrumentation
- e-Monitoring and control
- Smart spaces and ubiquitous systems
- Systems for people with special needs

Papers on the different researching lines of the group have been published in some of the best International Journals of their corresponding areas, as it can be seen from its ISI impact factor. The formative capability of the group is demonstrated by the high number of Doctoral dissertations advised by its members. One of the members of the group (professor Eduardo Ros) has received the Award for Young Researchers of Andalusia in its edition of 2002 and the group CASIP won the University of Granada's Social Council Award for Knowledge transference (2003 edition).

The main companies that have signed R+D+I contracts with members of the group CASIP are:

- AQUAPLAN
- Atico7
- Automation Consultants, S.L.
- BOA COR S.A.
- CATÓN Sistemas Alternativos
- CIATESA
- Civista
- Control in Situ, S.L.
- Data General
- EMACSA
- EMASAGRA
- ETC Media, S.L.
- Fujitsu Spain S.A.
- HEFAGRA Informática, S.L
- ICR (Ingeniería y Control Remoto S.A.)
- INFOTEL (Información y Telecomunicaciones S.A.)
- INISEL
- Intecna Solutions
- Sadiel
- SEDIPYME
- Schneider Electric
- Southern Star
- Telefónica I+D
- Telvent Energía y Medio Ambiente, S.A.
- Telvent Interactiva
- TQM Asesores
- Viajes Genil, S.A.
- University of Twente
- Nazaríes IT S.L.
- Atarfil S.L.
- On Granada
- Celtiberial Solutions S.L

Many of those contracts are included in national or regional programmes to promote relationships between public researching organizations and companies (CEDIT, PROFIT, TRACTOR, Technological Corporation of Andalusia, etc.). Moreover, several spin-off companies have been incorporated by members of our group:

- **Ingeniería y Control Remoto (ICR)**
  - Founded by Gonzalo Olivares and Francisco Gómez Mula in 1991.
  - http://www.icr-sa.com/

- **Seven Solutions**

- Incorporated in 2006, and founded by Eduardo Ros, Javier Díaz, Eva M. Ortigosa, Rodrigo Agís, Richard Carrillo and Rafael Rodríguez.
- http://www.sevensols.com/

- **Naranjo Intelligent Solutions**
  - Founded by Carlos García Puntonet.
  - http://www.naranjoisolutions.com/

- **Mi refugio infantil S.L. (Tutakaboo)**
  - Founded in 2014 by Alberto Guillén Perales and other professors UGR.
  - https://www.tutakaboo.com/

2. Members

The members of the research group are summarized in the following table. It has been obtained from the SICA (System of Information on Science of Andalusia) database.

Nombre	Grado académico	Centros de adscripción
MANCIA ANGUITA LOPEZ	Doctor	Universidad de Granada. Arquitectura y Tecnología de Computadores
FRANCISCO BARRANCO EXPÓSITO	Doctor	Universidad de Granada. Arquitectura y Tecnología de Computadores; Universidad de Granada. Arquitectura y Tecnología de Computadores
ORESTI BAÑOS LEGRÁN	Doctor	Universidad de Granada. Arquitectura y Tecnología de Computadores
JOSE LUIS BERNIER VILLAMOR	Doctor	Universidad de Granada. Arquitectura y Tecnología de Computadores
ABEL MIGUEL CANO DELGADO	Máster	Universidad de Granada. Arquitectura y Tecnología de Computadores
RICHARD R. CARRILLO SÁNCHEZ	Doctor	Universidad de Granada. Arquitectura y Tecnología de Computadores
DANIEL CASTILLO SECILLA	Doctor	Universidad de Granada. Arquitectura y Tecnología de Computadores
ANTONIO CAÑAS VARGAS	Doctor	Universidad de Granada. Arquitectura y Tecnología de Computadores
JESÚS ABERTO CORPAS NOVO	Doctor	Universidad de Granada. Escuela Técnica Superior de Ingenierías Informática y de Telecomunicación
MIGUEL DAMAS HERMOSO	Doctor	Universidad de Granada. Arquitectura y Tecnología de Computadores
ANTONIO FRANCISCO DIAZ GARCIA	Doctor	Universidad de Granada. Arquitectura y Tecnología de Computadores
ANTONIO JAVIER DÍAZ ALONSO	Doctor	Universidad de Granada. Arquitectura y Tecnología de Computadores
JUAN JOSÉ ESCOBAR PÉREZ	Doctor	Universidad de Granada. Arquitectura y Tecnología de Computadores
FRANCISCO JAVIER FERNANDEZ BALDOMERO	Doctor	Universidad de Granada. Arquitectura y Tecnología de Computadores
VÍCTOR JUAN FUENTES MARTÍNEZ	Titulado superior	Junta de Andalucía. Consejería de Educación

Nombre	Grado académico	Centros de adscripción
CARLOS GARCIA PUNTONET	Doctor	Universidad de Granada. Arquitectura y Tecnología de Computadores
MARIA ISABEL GARCÍA ARENAS	Doctor	Universidad de Granada. Arquitectura y Tecnología de Computadores
JESÚS ALBERTO GARRIDO ALCÁZAR	Doctor	Universidad de Granada. Arquitectura y Tecnología de Computadores
JESÚS GONZÁLEZ PEÑALVER	Doctor	Universidad de Granada. Arquitectura y Tecnología de Computadores
ALBERTO GUILLÉN PERALES	Doctor	Universidad de Granada. Arquitectura y Tecnología de Computadores
JOSÉ LUIS GUTIÉRREZ RIVAS	Doctor	Universidad de Granada. Arquitectura y Tecnología de Computadores
JUAN CARLOS GÓMEZ LÓPEZ	Máster	Universidad de Granada. Arquitectura y Tecnología de Computadores
FRANCISCO GÓMEZ MULA	Doctor	Universidad de Granada. Arquitectura y Tecnología de Computadores
LUIS JAVIER HERRERA MALDONADO	Doctor	Universidad de Granada. Arquitectura y Tecnología de Computadores
MIGUEL JIMENEZ LOPEZ	Doctor	Universidad de Granada
GABRIEL JIMENEZ PERERA	Titulado superior	Universidad de Granada. Arquitectura y Tecnología de Computadores; Universidad de Granada. Arquitectura y Tecnología de Computadores
JAVIER LEÓN PALOMARES	Máster	Universidad de Granada. Arquitectura y Tecnología de Computadores
NICETO RAFAEL LUQUE SOLA	Doctor	Universidad de Granada. Arquitectura y Tecnología de Computadores
PABLO MARTÍNEZ CAÑADA	Doctor	Universidad de Granada. Arquitectura y Tecnología de Computadores
EVA MARTÍNEZ ORTIGOSA	Doctor	Universidad de Granada. Arquitectura y Tecnología de Computadores
SALVADOR MORENO GUTIÉRREZ	Doctor	Universidad de Granada. Arquitectura y Tecnología de Computadores
CHRISTIAN AGUSTÍN MORILLAS GUTIÉRREZ	Doctor	Universidad de Granada. Arquitectura y Tecnología de Computadores
FRANCISCO NAVEROS ARRABAL	Doctor	Universidad de Granada. Arquitectura y Tecnología de Computadores
GONZALO OLIVARES RUIZ	Doctor	Universidad de Granada. Arquitectura y Tecnología de Computadores
DAVID PALOMAR SAEZ	Titulado superior	Universidad de Granada. Arquitectura y Tecnología de Computadores
FRANCISCO JOSE PELAYO VALLE	Doctor	Universidad de Granada. Arquitectura y Tecnología de Computadores
MARIA BEGOÑA DEL PINO PRIETO	Doctor	Universidad de Granada. Arquitectura y Tecnología de Computadores
HÉCTOR POMARES CINTAS	Doctor	Universidad de Granada. Arquitectura y Tecnología de Computadores

Nombre	Grado académico	Centros de adscripción
BEATRIZ PRIETO CAMPOS	Doctor	Universidad de Granada. Arquitectura y Tecnología de Computadores
ALBERTO PRIETO ESPINOSA	Doctor	Universidad de Granada. Arquitectura y Tecnología de Computadores
MANUEL RODRIGUEZ ALVAREZ	Doctor	Universidad de Granada. Arquitectura y Tecnología de Computadores
FERNANDO ROJAS RUIZ	Doctor	Universidad de Granada. Arquitectura y Tecnología de Computadores
IGNACIO ROJAS RUIZ	Doctor	Universidad de Granada. Arquitectura y Tecnología de Computadores
SAMUEL FRANCISCO ROMERO GARCÍA	Doctor	Universidad de Granada. Arquitectura y Tecnología de Computadores; Universidad de Granada. Arquitectura y Tecnología de Computadores
EDUARDO ROS VIDAL	Doctor	Universidad de Granada. Arquitectura y Tecnología de Computadores
JOSE MANUEL SOTO HIDALGO	Doctor	Universidad de Córdoba. Arquitectura de Computadores, Electrónica y Tecnología Electrónica; Universidad de Granada. Arquitectura y Tecnología de Computadores
JORGE SÁNCHEZ GARRIDO	Doctor	Universidad de Granada. Arquitectura y Tecnología de Computadores

3. Funded projects (competitive programmes):

In 2022, there are 16 active projects funded through competitive programmes (contracts and projects with companies not included). In what follows, the projects funded in competitive programmes in the last years (from 2014) are listed:

European projects:

1. **Title:** NEUSEQBOT. NEUro cerebellar recurrent network for motor SEQuence learning in neuroroBOTics
   Reference: H2020. MSCA 891774
   Responsible researcher: Eduardo Ros Vidal y Francisco Naveros Arrabal
   Funded by: Unión Europea (UE, H2020. MSCA)
   Participants: Universidad de Granada (España) y Baylor College of Medicine (BCM) (Houston, USA).
   Dates: 11/01/2021 - 10/01/2024
   Budget: 245.732,16 €

2. **Title:** Clock Network Services - Design Study (CLONETS-DS)
   Reference: 951886
   Responsible researcher: Javier Díaz Alonso
   Funded by: 2020-INFRADEV-2019-3
   Participants: 18 international centers and more than 40 researchers (3 at the University of Granada)
   Dates: 01/05/2020 - 1/06/2022
   Budget: 109.375 €

3. **Title:** WPENS: Work Package Early Neutron Source-Demo Oriented Neutron Source
   Reference: 633053
   Responsible researcher: Javier Díaz (UGR), Ángel Ibarra (CIEMAT)
   Funded by: EUROFUSION

Participants: 40+ international centers (3 researchers at the University of Granada)
Dates: 2020

4. **Title:** HBP: Human Brain Project. (SGA3)
   Reference: H2020 SGA3. 945539
   Responsible researcher: Eduardo Ros Vidal
   Funded by: Unión Europea (UE, H2020. RIA).
   Participants: Universidad de Granada (España) y aproximadamente 100 instituciones de investigación internacionales
   Dates: 1-4-2020 to 31-03-2023
   Budget: 937.838 €
   Researchers: 12 in UGR

5. **Title:** FITOPTIVIS- From the cloud to the edge - smart IntegraTion and OPtimization Technologies for highly efficient Image and VIdeo processing Systems
   Reference: H2020-JTIECSEL-2017-783162 y PCI2018-093184
   Responsible researcher: Eduardo Ros Vidal
   Funded by: Unión Europea y Ministerio de Ciencia, Innovación y Universidades.
   Participants: University of Granada (Spain), and 29 researching institutions
   Dates: 01/06/2018 - 31/05/2021
   Budget: 405.875 € (126.000 € nacional)

6. **Title:** ASTERICS: Astronomy ESFRI and Research Infrastructure Cluster
   Reference: H2020-INFRADEV-1-2014-1
   Responsible researcher: Javier Díaz Alonso
   Funded by: European Union, Project ID: 653477
   Participants: University of Granada (Spain)
   Dates: 1/05/2015 to 30/04/2019
   Budget: 191.100 €
   Researchers: 5

7. **Title:** Real-Time ASoC
   Reference: PIOF-GA-2012-332081
   Responsible researcher: Eduardo Ros Vidal
   Funded by: European Union (VII Framework Programme for Research and Innovation). Programme Marie Curie (IOF: International Outgoing Fellowships)
   Participants: University of Granada (Spain) and University of Maryland (USA)
   Dates: 7-05-2013 to 6-05-2016
   Budget: 254.925,90 €
   Researchers: 3

8. **Title:** CEREBSENSING: Cerebellar distributed plasticity towards active sensing and motor control
   Reference: H2020 Marie-Sklodowska Curie IF 2014 - 653019
   Researchers: Eduardo Ros Vidal, Jesús Garrido Alcázar
   Funded by: Unión Europea (UE, H2020 Programa Marco). Programa Marie-Sklodowska Curie 2014
   Participants: University of Granada (Spain)

9. **Title**: FASTDEFORM: Real-time understanding of dexterous deformable object manipulation with bio-inspired architectures.
   Reference: PIEF-GA-2011-301144.
   Responsible researcher: Eduardo Ros Vidal
   Funded by: European Union (UE, IST, VII Framework Programme). Marie Curie Programme (IEF: International European Fellowships)
   Date: desde 15-07-2012 hasta 14-07-2014
   Budget: 168.896,40 €
   Researchers: 2

10. **Title:** TOMSY: TOpology based Motion SYnthesis for dexterous manipulation.

Reference: FP7-270436
Responsible researcher: Eduardo Ros Vidal
Funded by: European Union (UE, IST, VII Framework Programme)
Date: 01/04/2011 – 31/03/2014
Budget: UGR 434.000 Euros. Total: 3.000.000 Euros
Researchers: 14

11. **Title**: REALNET: Realistic Real-time Networks: computation dynamics in the cerebellum.
Reference: FP7-270434
Responsible researcher: Eduardo Ros Vidal
Funded by: Unión Europea (UE, IST, VII Programa Marco)
Date: 01/02/2011 - 31/01/2014
Budget: UGR 255.070 Euros. Total: 2.387.950 Euros
Researchers: 18

National projects:

1. **Title:** Distributed Artificial Intelligent Systems
Reference: PCI2021-121967
Responsible researcher: Javier Díaz Alonso
Funded by: Ministerio de Ciencia e Innovación (MICINN). Proyectos del Plan Nacional 2021
Dates: 01/05/2021 - 30/04/2024
Budget: ???

2. **Title:** Intelligent Motion Control under Industry 4.E
Reference: PCI2021-121925
Responsible researcher: Eduardo Ros Vidal
Funded by: Ministerio de Ciencia e Innovación (MICINN). Proyectos del Plan Nacional 2021
Dates: 01/09/2021 - 31/08/2024
Budget: ???

3. **Title:** Modelado Cerebelar con Impulsos Neuronales Considerando la Degradación por Envejecimiento Durante la Adaptación Motora
Reference: PID2020-113422GA-I00
Responsible researcher: Niceto Rafael Luque Sola
Funded by: Ministerio de Ciencia e Innovación (MICINN). Proyectos del Plan Nacional 2020
Dates: 01/09/2021 - 31/08/2024
Budget: 70.664,00€

4. **Title:** Contribución de la UGR al programa científico del experimento de neutrinos DUNE
Reference: PID2019-104676GB-C32
Responsible researcher: Alberto Guillén Perales, Antonio Bueno Villar (Física Teórica)
Funded by: Ministerio de Ciencia e Innovación (MICINN). Proyectos del Plan Nacional 2019
Dates: 01/06/2020 - 31/05/2023
Budget: 310.970,00€

5. **Title:** BIO-PERCEPTION: Nueva generación de sistemas de visión inteligentes para procesamiento en tiempo real con sensores bio-inspirados
Reference: PID2019-109434RA-I00
Responsible researcher: Francisco Barranco Expósito
Funded by: Ministerio de Ciencia e Innovación (MICINN). Proyectos del Plan Nacional 2019
Dates: 01/06/2020 - 31/05/2023
Budget: 69.454,00 Euros

6. **Title:** INTSENSO: Integración Sensorimotora para control adaptativo mediante aprendizaje en cerebelo y centros nerviosos relacionados. Aplicación en robótica
Reference: MICINN-FEDER-PID2019-109991GB-I00
Responsible researcher: Eduardo Ros Vidal y Jesús A. Garrido Alcázar
Funded by: Ministerio de Ciencia e Innovación (MICINN). Proyectos del Plan Nacional 2019

Dates: 01/06/2020 - 31/05/2023
Budget: 68.002 Euros
Researchers: 8

7. **Title:** An Intelligent Framework to Scrutinise the Social, Behavioural and Emotional Impact of COVID-19 (POSTCOVID-AI)
Reference: SR20-00668
Responsible researcher: Oresti Baños Legrán
Funded by: "La Caixa" Foundation
Dates: 01/01/2021 - 31/12/2022
Budget: 96.000 euros
Researchers: 8

8. **Title:** Nuevos paradigmas de cómputo y arquitecturas heterogéneas paralelas para la mejora en velocidad y energía de tareas de optimización y clasificación en aplicaciones biomedicas
Reference: PGC2018-098813-B-C31
Responsible researcher: Jesús González Peñalver y Miguel Damas Hermoso
Funded by: Ministerio de Ciencia, Innovación y Universidades
Dates: 01/01/2019 - 31/12/2022
Budget: 244.420 euros
Researchers: 12

9. **Title:** AMIGA7: Entornos extremos de galaxias con los precursores de SKA - Desde el diseño del flujo de datos hacia su construcción - Transporte de datos y señales
Reference: RTI2018-096228-B-C32
Responsible researcher: Antonio Javier Díaz Alonso, Manuel Rodríguez Álvarez
Funded by: Ministerio de Ciencia, Innovación y Universidades
Dates: 01/01/2019 - 31/12/2021
Budget: 72.600,00 euros

10. **Title:** Arquitecturas de cómputo y soluciones basadas en aprendizaje máquina avanzadas para problemas complejos en Bioinformática, Biotecnología y Biomedicinas
Reference: RTI2018-101674-B-I00
Responsible researcher: Ignacio Rojas Ruiz, Luis Javier Herrera Maldonado
Funded by: Ministerio de Ciencia, Innovación y Universidades
Dates: 01/01/2019 - 31/03/2021
Budget: 134.310,00 euros

11. **Title:** Física fundamental y astronomía multi-mensajero con telescopios de neutrinos en la UGR
Reference: PGC2018-096663-B-C44
Responsible researcher: Antonio Francisco Díaz García, Sergio Navas Concha (Física Teórica)
Funded by: Ministerio de Ciencia, Innovación y Universidades
Dates: 01/01/2019 - 31/12/2021
Budget: 338.800,00 euros

12. **Title:** Equipamiento para control distribuido, robótica industrial y colaborativa
Reference: EQC2019-005821-P
Responsible researcher: Eduardo Ros Vidal
Funded by: Ministerio de Ciencia, Innovación y Universidades (Proyecto de Infraestructura. Equipamiento científico)
Dates: 01/12/2019 - 31/12/2020
Budget: 267.453,85 euros

13. **Title:** De la nube a los puntos finales tecnologías de integración inteligente y optimización para sistemas eficientes de procesamiento de imágenes y video
Reference: PCI2018-093184
Responsible researcher: Eduardo Ros Vidal
Funded by: Ministerio de Ciencia, Innovación y Universidades
Dates: 01/06/2018 - 1/06/2021

14. **Title:** Estudio de las propiedades de los rayos cósmicos y de los neutrinos en la UGR
Reference: FPA2017-85197-P
Responsible researcher: Alberto Guillén Perales, Antonio Bueno Villar (Física Teórica)
Funded by: Ministerio de Economía, Industria y Competitividad
Dates: 01/01/2018 - 30/09/2020
Budget: 96.800 euros

15. **Title:** Nuevos modelos de cómputo Bioinspirado para entornos masivamente complejos
Reference: TIN2017-85727-C4-2-P
Responsible researcher: Juan Julián Merelo Guervós, Pedro A. Castillo Valdivieso
Funded by: Ministerio de Economía, Industria y Competitividad
Dates: 01/01/2018 - 31/12/2020
Budget: 70.906 euros

16. **Title:** Laboratorio de distribución de tiempo y frecuencia (LABTIF)
Reference: EQC2018-005214-P
Responsible researcher: Javier Díaz Alonso
Funded by: Ministerio de Ciencia, Innovación y Universidades. Ayudas para la adquisición de equipamiento científico-técnico. Subprograma estatal de Infraestructuras de Investigación y equipamiento científico-técnico
Dates: 01/01/2018 – 31/12/2019
Budget: 790.898 euros
Researchers: 7

17. **Title:** CEREBROT: Cerebelo Adaptativo de Integración sensori-motora y su aplicación en Robótica
Reference: TIN2016-81041-R
Responsible researcher: Eduardo Ros Vidal y Mancia Anguita López
Funded by: Ministerio de Economía y Competitividad y Fondos FEDER
Dates: 1/1/2017 - 31/12/2019
Budget: 82.328,40 euros (78.408,00€, 3.920,40€)
Researchers: 8

18. **Title:** Optimización Multi-Objetivo de Altas Prestaciones y Energéticamente Eficiente en Arquitecturas de Computador Heterogéneas. Aplicaciones en Ingeniería Biomédica (ehpMOBE)
Reference: TIN2015-67020-P
Responsible researchers: Julio Ortega Lopera and Jesús González Peñalver
Funded by: Ministerio de Economía y Competitividad and FEDER funds
Dates: 1/1/2016 - 31/12/2018
Budget: 94.864,00 € (79.306,30 is 2016; 3.225,38 in 2017; 12.332,32 in 2018)
Researchers: 14

19. **Title:** Participación de la UGR en ANTARES, KM3NET-ARCA/ORCA y PDG
Reference: FPA2015-65150-C3-3- P
Responsible researchers: Sergio Navas Concha / Antonio F. Díaz García
Funded by: Ministerio de Economía y Competitividad
Dates: 1/1/2016 - 31/12/2018
Budget: 55.000,00 €

20. **Title:** Amiga-6: Gas en el interior y en el entorno de las galaxias. Preparación científica para SKA y contribución al diseño de flujo de datos. Transmisión de Datos y Señales (SaDT).
Reference: AYA2015-65973-C3-2-R
Responsible researcher: Manuel Rodríguez Álvarez.
Funded by: Ministerio de Economía y Competitividad and FEDER-RETOS funds.
Dates: 1/1/2016 - 31/12/2018
Budget: 100.000,00 € (82.600,00 in 2016; 3.400,00 in 2017; 14.000,00 in 2018)
Researchers: 6

21. **Title:** Avances en arquitecturas de cómputo para aprendizaje automático utilizando fuentes heterogéneas: aplicaciones en salud y bienestar
Reference: TIN2015-71873-R
Responsible researcher: Luis Javier Herrera Maldonado e Ignacio Rojas Ruiz
Funded by: Ministerio de Economía y Competitividad and FEDER funds
Dates: 1/1/2016 - 31/12/2018
Budget: 97.100 €
Researchers: 13 (7 of UGR)

22. **Title:** Neurociencia Computacional en ciclos cerrados de percepción-acción (NEUROPACT)
Reference: TIN2013-47069-P
Responsible researcher: Eduardo Ros Vidal
Funded by: Ministerio de Economía y Competitividad
Dates: 1/1/2014 - 31/12/2016
Budget: 112.500 Euros

23. **Title:** Participación de la Universidad de Granada en el experimento AUGER y su futura mejora AUGERPRIME
Reference: FPA2015-70420-C2-2-R
Responsible researcher: Antonio Bueno Villar and Alberto Guillén Perales
Funded by: Ministerio de Economía y Competitividad and FEDER- RETOS funds.
Dates: 1/1/2016 - 31/12/2018
Budget: 140.000 €
Researchers: 4

24. **Title:** INDOTAC: Mini-UAV para uso táctico y en interiores Indoor and Tactical Purpose (Mini UAV).
Reference: COINCIDENTEDN8644-INDOTAC Programme COINCIDENTE (Cooperación en Investigación Científica y Desarrollo en Tecnologías Estratégicas)
Responsible researcher: Samuel Francisco Romero García
Funded by: Advisor(s) General de Armamento y Material
Dates: 1/10/2015 - 30/09/2017
Budget: 315.114,47 euros (UGR)

25. **Title:** Optimización Multiobjetivo de Altas Prestaciones y Aplicaciones en Neuroingeniería y Técnicas para Rehabilitación
Reference: TIN2012-32039
Responsible researcher: Julio Ortega Lopera
Funded by: Ministerio de Economía y Competitividad
Date: 1/1/2013 - 31/12/2015
Budget: 33.631 (2013), 3.771 (2014), 3.501 (2015) euros

26. **Title:** AbFS: Sistema de Almacenamiento Paralelo y Muy Masivo para HPC & Cloud Computing
Reference: IPT-2011:1728-430000
Responsible researcher: Antonio F. Díaz García
Funded by: Ministerio de Ciencia e Innovación.
Date: 1/10/2011 - 31/12/2014
Budget: 628.431 euros (UGR: 174.438 euros)

Regional and local (CEI BIOTIC) projects:

1. **Title:** Ayuda al diagnóstico precoz de alzheimer mediante análisis de la actividad cerebral asada en registro EEG de bajo coste (DIPRAL)
Reference: B-TIC-352-UGR20
Responsible researcher: Fernando Rojas Ruiz
Funded by: Proyectos I+D+i Junta de Andalucia 2020.
Dates: 01/01/2022 - 30/06/2023
Budget: 22.800,00 Euros

2. **Title:** Análisis, desarrollo e implementación de un sistema inteligente para la adquisición y procesamiento de señales fisiológicas heterogéneas en aplicaciones de salud cardiovascular y bienestar. ACRÓNIMO: eCARDIO.
   Reference: A-TIC-530-UGR20
   Responsible researcher: Fernando Rojas Ruiz
   Funded by: Proyectos I+D+i Junta de Andalucia 2020.
   Dates: 01/01/2022 - 30/06/2023
   Budget: 25.000,00 Euros

3. **Title:** Integración de Fuentes Heterogéneas de Información Biomédica Utilizando Computación de Altas Prestaciones. Aplicación en Problemas Complejos en Medicina Personalizada y de Precisión.
   Reference: P20_00163
   Responsible researcher: Ignacio Rojas Ruiz
   Funded by: Proyectos I+D+i Junta de Andalucia 2020.
   Dates: 01/01/2021 - 31/03/2023
   Budget: 197.700,00 Euros

4. **Title:** Estudio Holístico del Aprendizaje Cerebelar y su Aplicación en Control Robótico.
   Reference: A-TIC-276-UGR18
   Responsible researcher: Jesús Alberto Garrido Alcázar y Niceto Rafael Luque Sola
   Funded by: Junta Andalucía. Proyectos I+D+i del Programa Operativo FEDER 2018.
   Dates: 1/1/2020 - 1/1/2023
   Budget: 14.900 Euros

5. **Title:** Desarrollo de una multi-plataforma integradora de bases de datos ómicas heterogéneas para el análisis de expresión diferencial de genes. Aplicación en el cáncer de páncreas ACRÓNIMO: MULTI-OMICAS.
   Reference: B-TIC-414-UGR18
   Responsible researcher: Ignacio Rojas Ruiz
   Funded by: Junta Andalucía. Proyectos I+D+i del Programa Operativo FEDER 2018.
   Dates: 1/1/2020 - 31/12/2021
   Budget: 15.200,00 Euros

6. **Title:** Desarrollo de una plataforma inteligente que permita la integración de fuentes de información heterogénea (imágenes, genética y proteómica) para la caracterización y predicción de la virulencia y patogenicidad de pacientes con COVID-19.
   Reference: CV20-64934
   Responsible researcher: Ignacio Rojas Ruiz
   Funded by: Junta Andalucía. Proyectos de investigación sobre SARS-COV-2 y la enfermedad COVID-19.
   Dates: 9/9/2020 - 8/9/2021
   Budget: 81.000,00 Euros

7. **Title:** CEREBIO. Cerebelo y Oliva Inferior en tareas de adaptación sensori-motora
   Reference: J.A. FEDER P18-FR-2378
   Responsible researcher: Eduardo Ros Vidal y Jesús A. Garrido Alcázar
   Funded by: Junta Andalucía. Proyecto Excelencia
   Dates: 01/1/2020 - 31/12/2022
   Budget: 100.500,00 Euros

8. **Title:** MONitoring and InTelligenT analysis of the physical, social and emotional behaviOR of the Spanish population for the characterization and control of COVID-19 (MONITOR-COVID)
   Reference: CV20-29556
   Responsible researcher: Oresti Baños Legrán
   Funded by: Junta de Andalucía
   Dates: 01/10/2020 - 30/09/2021
   Budget: 28.500,00 €

9. **Title:** Plat-EEG: Plataforma de altas prestaciones para la adquisición, extracción y procesamiento inteligente de señales EEG
Reference: TIC-7983
Responsible researcher: Francisco J. Pelayo Valle
Funded by: Junta de Andalucía
Dates: 27/06/2013 - 26/06/2017
Budget: 100.639,38 €

10. **Title:** Visión tridimensional para videoanálisis interactivo y realidad aumentada (VITVIR)
Reference: P11-TIC-8120
Responsible researcher: Antonio Javier Díaz Alonso
Funded by: Junta de Andalucía
Dates: 27/06/2013 al 26/06/2016
Budget: 37.881,00 €

11. **Title:** UAVs: soluciones técnicas aplicadas al empleo táctico
Reference: PIN 14/2014
Responsible researcher: Samuel F. Romero García and David A. Pelta Mochkovsky
Funded by: Centro Mixto UGR/MADOC – Banco Santander
Dates: 15/11/2014 al 16/5/2016
Budget: 10.000 €
Researchers: 16

12. **Title:** Sistemas de cómputo avanzados en aplicaciones del ámbito de biotecnología y bioinformática
Reference: P12-TIC-2082
Responsible researcher: Ignacio Rojas Ruiz
Funded by: Proyectos Motrices y de Innovación- Junta de Andalucía
Dates: 01/01/2013- 31/12/2016
Budget: 212.990 €
Researchers: 9

13. **Title**: Programa de Fortalecimiento Grupos de Investigación
Reference: TIC-117
Responsible researcher: Julio Ortega Lopera
Funded by: Junta de Andalucía and FEDER funds
Dates: 1/01/2015 – 30/06/2015
Budget: 25.000,00 €

14. **Title:** Proyecto de Iniciación a la Investigación e Innovación en Secundaria en Andalucía: PIIISA (proyecto individual "Iniciación a la investigación en redes sociales")
Reference: FCT-13-6018
Responsible researcher: Ana Isabel García López
Funded by: Junta de Andalucía, UGR, FECYT and CSIC
Budget: 56900 €
Date: 01/09/2013 - 30/08/2014
Participants: 450 students, 177 researchers, 31 coordinators IES

15. **Title:** Motion-based Vision Systems for UAVs
Reference: PYR-2014-4
Responsible researcher: Francisco Barranco Expósito
Funded by: CEI BioTic GRANADA
Entidades participantes: University of granada, University of Maryland (EEUU)
Date: 01/04/2014 – 31/12/2014
Budget: 3000 €
Número de Researchers: 1

4. Papers in international journals (only Q1 and Q2 in JCR impact factor)

The papers published by members of the group, since 2010, in international journals with JCR impact factor, and included in Q1 and Q2 quartiles, are listed below. Among the corresponding 257 papers, 172 papers are Q1 while 85 are Q2, demonstrate the relevance of the researching work accomplished by the group.

1. Baños, R.; Gil, C.; Reca, J.; Ortega, J.:"A Pareto-based Memetic Algorithm for Optimization of Looped Water Distribution Systems". GENO: Engineering Optimization, Vol. 42, No.3, pp.223-240. March, 2010. (Q2)
2. Ortiz, A.; Ortega, J.; Díaz, A.F.; Prieto, A.:"Network Interfaces for Programmable NICs and Multicore Platforms". Computer Networks, 54, pp.357-376, 2010. (Q2)
3. Urquiza, J.M.; Rojas, I.; Pomares, H.; Herrera, L.J.; Ortega, J.; Prieto, A.:"Method for prediction of protein-protein interactions in yeast using genomics/proteomics information and feature selection". Neurocomputing, 74, pp. 2683-2690. 2011. (Q2)
4. Calvo, J.C.; Ortega, J.; Anguita, M.: PITAGORAS-PSP: Including domain knowledge in a multi-objective approach for protein structure prediction". Neurocomputing 74, pp.2675-2682, doi:10.1016/j.neucom.2011.04.003, 2011. (Q2)
5. Díaz, A.F.; Anguita, M.; Camacho, H.E.; Nieto, E.; Ortega, J.: "Two-level Hash/Table approach for metadata management in distributed file systems". The Journal of Supercomputing, Vol. 64, 1, pp. 144-155, April 2013 (DOI: 10.1007/s11227-012-0801-y). (Q2)
6. Baños, R.; Ortega, J.; Gil, C.; Fernández, A.; Toro, F. de: "A Simulated Annealing-based parallel multi-objective approach to vehicle routing problems with time Windows". Expert Systems with Applications, Vol. 40, Issue 5, Pages 1696-1707, April 2013. (DOI: 10.1016/j.eswa.2012.09.012). (Q1)
7. Baños, R.; Ortega, J.; Gil, C.; Márquez, A. L.; Toro, F. de: "A hybrid meta-heuristic for multi-objective vehicle routing problems with time windows". Computers & Industrial Engineering, Vol. 65, Issue 2, pp. 286-296. June, 2013 (Q2)
8. Ortiz, A.; Ortega, J.; Díaz, A.F.; Anguita, M.: "Leveraging bandwidth improvements to Web servers through enhanced network interfaces". The Journal of Supercomputing, Vol. 65, Issue 3, pp.1020-1036. September, 2013 (D.O.I.: 10.1007/s11227-012-0841-3). (Q2)
9. Hoz, E. de la; Hoz, E. de la; Ortiz, A.; Ortega, J.; Martínez-Álvarez, A.: "Feature selection by multi-objective optimization:application to network anomaly detection by hierarchical self-organizing maps". Knowledge-Based Systems, Vol.71, pp.322-338, 2014. (Q1)
10. Hoz, E. M. de la; Hoz, E. de la; Ortiz, A.; Ortega, J.; Prieto, B.:"PCA filtering and Probabilistic SOM for Network Intrusion Detection". Neurocomputing, 2014. (Q2)
11. Kimovski, D.; Ortega, J.; Ortiz, A.; Baños, R.: "Parallel alternatives for evolutionary multi-objective optimization in unsupervised feature selection". Expert Systems with Applications Vol.42 (9), pp.4239-4252, 2015. (Q1)
12. Baños, R.; Ortega, J.; Gil, C.; Montoya, M.D.G.: "Analysis of OpenMP and MPI implementations of Meta-heuristics for Vehicle Routing Problems". Applied Soft Computing, 43, pp.262-275, 2016. (Q1)
13. Prieto, A.; Prieto, B.; Martinez-Ortigosa, E.; Ros, E.; Pelayo, F.J.; Ortega, J.; Rojas, I.: "Neural networks: An overview of early research, current frameworks and new challenges". Neurocomputing, 2016. (Q1)
14. Morillas, Christian A.; Romero, Samuel F.; Martínez, Antonio; Pelayo, Francisco J.; Ros, Eduardo; Fernández, Eduardo: "A Design Framework to Model Retinas". BioSystems 87: 156-163. 2007. (Q2)
15. Lopez-Gordo, M.A.; Prieto, A.; Pelayo, F.; Morillas, C.: "Customized stimulation enhances performance of independent binary SSVEP-BCIs". Clinical Neurophysiology 122(1): 128-133. 2011. (Q1)
16. Ureña, R.; Morillas, C.; Pelayo, F.J.: "Real-time bio-inspired contrast enhancement on GPU". Neurocomputing 121: 40-52. 2013. (Q1)

17. Chacón-López, H.; Pelayo, F.J.; López-Justicia, M.D.; Morillas, C.; Ureña, R.; Chacón-Medina, A.; Pino, B.: “Visual training and emotional state of people with retinitis pigmentosa”. Journal of Rehabilitation Research & Development 50 (8): 1157-1168. 2013. (Q2)

18. Martínez-Cañada, P; Morillas, C.; Pino, B; Ros, E.; Pelayo, F.: “A Computational Framework for Realistic Retina Modeling”. International Journal of Neural Systems (Aceptado para su publicación). 2016. (Q1)

19. Gonzalo Ruiz García; Hagras, Hani; HECTOR POMARES CINTAS; IGNACIO ROJAS RUIZ; Bustince, Humberto. “Join and Meet operations for Type-2 Fuzzy Sets with Non-Convex Secondary Memberships”. IEEE Transactions on Fuzzy Systems. 2016. (Q1)

20. A. Guillén; L.J. Herrera; H. Pomares; I. Rojas; F.J. Liegana. “Decision Support System to Determine Intention to Use Mobile Payment Systems on Social Networks: A Methodological Analysis”. International Journal of Intelligent Systems. 31 - 2, pp. 153 - 172. 2016. (Q1)

21. FRANCISCO MANUEL ORTUÑO GUZMÁN; OLGA VALENZUELA CANSINO; BEATRIZ PRIETO CAMPOS; MARÍA JOSÉ SAEZ LARA; CAROLINA TORRES PERALES; HECTOR POMARES CINTAS; IGNACIO ROJAS RUIZ. “Comparing different machine learning and mathematical regression models to evaluate multiple sequence alignments”. Neurocomputing. 164, pp. 123 - 136. 2015. (Q1)

22. ORESTI BAÑOS LEGRÁN; José Antonio Moral Muñoz; Diaz-reyes, Ignacio; MANUEL ARROYO MORALES; MIGUEL DAMAS HERMOSO; ENRIQUE HERRERA VIEDMA; Seon-hong, Choong; Lee, Sungyong; HECTOR POMARES CINTAS; IGNACIO ROJAS RUIZ; Villalonga, Claudia. “mDurance: A Novel Mobile Health System to Support Trunk Endurance Assessment”. Sensors. 15, pp. 13159 - 13183. 2015. (Q1)

23. ORESTI BAÑOS LEGRÁN; MIGUEL DAMAS HERMOSO; ALBERTO GUILLÉN PERALES; LUIS JAVIER HERRERA MALDONADO; HECTOR POMARES CINTAS; IGNACIO ROJAS RUIZ; Villalonga, Claudia. Multi-sensor Fusion Based on Asymmetric Decision Weighting for Robust Activity Recognition. Neural Processing Letters. 52 - 1, pp. 5 - 26. 2015. (Q2)

24. ORESTI BAÑOS LEGRÁN; Attila-toth, Mate; MIGUEL DAMAS HERMOSO; HECTOR POMARES CINTAS; IGNACIO ROJAS RUIZ. Dealing with the Effects of Sensor Displacement in Wearable Activity Recognition. Sensors. 14 - 6, pp. 9995 - 10023. 2014. (Q1)

25. ALBERTO GUILLÉN PERALES; MARIA ISABEL GARCÍA ARENAS; Van Heeswijk, Mark; Sovilj, Dusan ; Lendasse, Amaury; LUIS JAVIER HERRERA MALDONADO; HECTOR POMARES CINTAS; IGNACIO ROJAS RUIZ. Fast Feature Selection in a GPU Cluster Using the Delta Test. Entropy. 16 - 2, pp. 854 - 869. 2014. (Q2).

26. ORESTI BAÑOS LEGRÁN; Galvez, Juan Manuel; MIGUEL DAMAS HERMOSO; HECTOR POMARES CINTAS; IGNACIO ROJAS RUIZ. Window Size Impact in Human Activity Recognition. Sensors. 14 - 4, pp. 6474 - 6499. 2014. (Q1).

27. FRANCISCO MANUEL ORTUÑO GUZMÁN; OLGA VALENZUELA CANSINO; HECTOR POMARES CINTAS; FERNANDO ROJAS RUIZ; JAVIER PEREZ FLORIDO; JOSÉ MIGUEL URQUIZA ORTIZ; IGNACIO ROJAS RUIZ. Predicting the accuracy of multiple sequence alignment algorithms by using computational intelligent techniques. Nucleic Acids Research. 41 - 1, pp. 1 - 10. 2013. (Q1).

28. ANA BELÉN CARA CARMONA; Wagner, Christian; Hagras, Hani; HECTOR POMARES CINTAS; IGNACIO ROJAS RUIZ. Multiobjective Optimization and Comparison of Nonsingleton Type-1 and Singleton Interval Type-2 Fuzzy Logic Systems. IEEE Transactions on Fuzzy Systems. 21 - 3, pp. 459 - 476. 2013. (Q1)

29. ANA BELÉN CARA CARMONA; LUIS JAVIER HERRERA MALDONADO; HECTOR POMARES CINTAS; IGNACIO ROJAS RUIZ. New Online Self-Evolving Neuro Fuzzy controller based on the TaSe-NF model. Information Sciences. 220, pp. 226 - 243. 2013. (Q1)

30. JAVIER PEREZ FLORIDO; HECTOR POMARES CINTAS; IGNACIO ROJAS RUIZ; ALBERTO GUILLÉN PERALES; FRANCISCO MANUEL ORTUÑO GUZMÁN; Urquiza, Jose. An effective, practical and low computational cost framework for the integration of heterogeneous data to predict functional associations between proteins by means of Artificial Neural Networks. Neurocomputing. 121, pp. 64 - 78. 2013. (Q2).

31. FRANCISCO MANUEL ORTUÑO GUZMÁN; OLGA VALENZUELA CANSINO; FERNANDO ROJAS RUIZ; HECTOR POMARES CINTAS; JAVIER PEREZ FLORIDO; JOSÉ MIGUEL URQUIZA ORTIZ; IGNACIO ROJAS

RUIZ. Optimizing multiple sequence alignments using a genetic algorithm based on three objectives: structural information, non-gaps percentage and totally conserved columns. Bioinformatics (Oxford. Print). 29 - 17, pp. 2112 -2121. 2013. (Q1).

32. HECTOR POMARES CINTAS; IGNACIO ROJAS RUIZ; Awad, M; OLGA VALENZUELA CANSINO. An enhanced clustering function approximation technique for a radial basis function neural network. Mathematical and Computer Modelling. 55, pp. 286 - 302. 2012. (Q1).

33. ORESTI BAÑOS LEGRÁN; MIGUEL DAMAS HERMOSO; HECTOR POMARES CINTAS; ALBERTO PRIETO ESPINOSA; IGNACIO ROJAS RUIZ. Daily living activity recognition based on statistical feature quality group selection. Expert Systems with Applications. 39, pp. 8013 - 8021. 2012. (Q1).

34. ORESTI BAÑOS LEGRÁN; MIGUEL DAMAS HERMOSO; HECTOR POMARES CINTAS; IGNACIO ROJAS RUIZ. On the Use of Sensor Fusion to Reduce the Impact of Rotational and Additive Noise in Human Activity Recognition. Sensors. 12 - 6, pp. 8039 - 8054. 2012. (Q1).

35. JAVIER PEREZ FLORIDO; HECTOR POMARES CINTAS; IGNACIO ROJAS RUIZ; JOSÉ MIGUEL URQUIZA ORTIZ; MIGUEL ANGEL LOPEZ GORDO. A deterministic model selection scheme for incremental RBFNN construction in time series forecasting. Neural Computing & Applications. 21 - 3, pp. 595 - 610. 2012. (Q2).

36. GINÉS RUBIO FLORES; HECTOR POMARES CINTAS; IGNACIO ROJAS RUIZ; LUIS JAVIER HERRERA MALDONADO. A HEURISTIC METHOD FOR PARAMETER SELECTION IN LS-SVM: APPLICATION TO TIME SERIES PREDICTION. International Journal of Forecasting. 27, pp. 725 - 739. 2011. (Q2).

37. Luis Javier Herrera, Héctor Pomares, Ignacio Rojas, Alberto Guillén, Olga Valenzuela: The TaSe-NF model for function approximation problems: Approaching local and global modelling. Fuzzy Sets and Systems 171(1): 1-21 (2011). Índice De Impacto: 2.138, 8 de 203, (Q1)

38. ANA BELÉN CARA CARMONA; HECTOR POMARES CINTAS; IGNACIO ROJAS RUIZ. A NEW METHODOLOGY FOR THE ONLINE ADAPTATION OF FUZZY SELF-STRUCTURING CONTROLLERS. IEEE Transactions on Fuzzy Systems. 19 - 3, pp. 449 - 464. 2011. (Q1).

39. LUIS JAVIER HERRERA MALDONADO; HECTOR POMARES CINTAS; IGNACIO ROJAS RUIZ; ALBERTO GUILLÉN PERALES; GINÉS RUBIO FLORES; JOSÉ MIGUEL URQUIZA ORTIZ. GLOBAL AND LOCAL MODELLING IN RBF NETWORKS. Neurocomputing. 74 - 16, pp. 2594 - 2602. 2011. (Q2).

40. JAVIER PEREZ FLORIDO; HECTOR POMARES CINTAS; IGNACIO ROJAS RUIZ. GENERATING BALANCED LEARNING AND TEST SETS FOR FUNCTION APPROXIMATION PROBLEMS. International Journal of Neural Systems. 21 - 3, pp. 247 - 263. 2011. (Q1).

41. MARÍA DEL MAR PÉREZ GÓMEZ; RAZVAN IONUT GHINEA; LUIS JAVIER HERRERA MALDONADO; ANA-MARIA-ANDREEA IONESCU; HECTOR POMARES CINTAS; ROSA PULGAR ENCINAS; Paravina, Rade D.Dental ceramics: A CIEDE2000 acceptability thresholds for lightness, chroma and hue differences. Journal of Dentistry. 39 - S2, pp. e37 - e44. 2011. (Q1).

42. Botella, G; Meyer-Baese, U.; García A.; Rodríguez-Álvarez, M. “Quantitazion analysis and enhancement of a vlsi gradient-based motion estimation architecture”. Digital Signal Processing, vol 22 (2012), pp 1174-1187. ISSN: 1051-2004. DOI: 10.1016/j.dsp.2012.05.013. (Q1).

43. González, J.; Pomares, H.; Damas, M.; García-Sánchez, P.; Rodríguez-Álvarez, M. “The use of video-gaming devices as a motivation for learning embedded systems programming”. IEEE Transactions on Education Vol. 56, nº 2, Mayo de 2013, pp. 199-207. ISSN 0018-9359. DOI: 10.1109/TE.2012.2208194. (Q2)

44. García-Sánchez, P.; Romero, G.; González, Mora, García Arenas, Castillo, Fernandes, Merelo Guervós: “Studying the effect of population size in distributed evolutionary algorithms on heterogeneous clusters”. Appl. Soft Comput. 38: 530-547, 2016 (Q1)

45. García-Sánchez, P.; González, J.; Mora, A.; Prieto A.; “Deploying intelligent e-health services in a mobile Gateway”. Expert Syst. Appl. 40(4): 1231-1239, 2013 (Q1)

46. García-Sánchez, P.; González, J.; Castillo, P.A.; García Arenas, M.; Merelo Guervós, J.J; “Service oriented evolutionary algorithms”. Soft Comput. 17(6): 1059-1075, 2013 (Q2)

47. Rojas, Ignacio; Joya, Gonzalo; Cabestany, Joan: Special issue on advances in computational intelligence and machine learning (IWANN 2013) SOFT COMPUTING Volumen: 19 Número: 9 Páginas: 2403-2405 Dates de publicación: SEP 2015 (Q2).

48. Rojas, Ignacio; Cabestany, Joan; Catala, Andreu: “Advances in Artificial Neural Networks and Computational Intelligence Special”. (IWANN 2013). NEURAL PROCESSING LETTERS Volumen: 42 Número: 1 Número especial: SI Páginas: 1-3 Dates de publicación: AUG 2015 (Q2)

49. Ortuno, Francisco M.; Rojas, Ignacio; Andrade-Navarro, Miguel A.; Fontaine, Jean-Fred: “Using cited references to improve the retrieval of related biomedical documents “. BMC BIOINFORMATICS Volumen: 14 Número de artículo: 113 Dates de publicación: MAR 27 2013 (Q1)

50. Rojas, Ignacio; Moncusi, Joan Cabestany I.; Joya, Gonzalo: “Advances in computational intelligence”. SOFT COMPUTING Volumen: 17 Número: 2 Páginas: 195-197 Dates de publicación: FEB 2013, (Q2)

51. Valenzuela, O.; Jaramillo, D.; Rojas, I.; et ál. “Intelligent decision-making systems for the diagnosis of Alzheimer's disease using MR images” INTERNATIONAL JOURNAL OF PSYCHOPHYSIOLOGY Volumen: 85 Número: 3 Número especial: SI Páginas: 392-392 Dates de publicación: SEP 2012, (Q2)

52. Herrera, Luis J.; Pulgar, Rosa; Santana, Janiley; et ál.: “Prediction of color change after tooth bleaching using fuzzy logic for Vita Classical shades identification” APPLIED OPTICS Volumen: 49 Número: 3 Páginas: 422-429 Dates de publicación: JAN 20 2010, (Q2)

53. Rivera, A. J.; Rojas, I.; Ortega, J.; et al: “A new hybrid methodology for cooperative-coevolutionary optimization of radial basis function networks “. SOFT COMPUTING Volumen: 11 Número: 7 Páginas: 655-668 Dates de publicación: MAY 2007, (Q2)

54. Jesús González, Ignacio Rojas, Héctor Pomares, Luis Javier Herrera, Alberto Guillén, José M. Palomares, Fernando Rojas: Improving the accuracy while preserving the interpretability of fuzzy function approximators by means of multi-objective evolutionary algorithms. Int. J. Approx. Reasoning 44(1): 32-44 (2007). Índice De Impacto: 1.220, 38 de 93, (Q2)

55. Olga Valenzuela, Ignacio Rojas, Fernando Rojas, Héctor Pomares, Luis Javier Herrera, Alberto Guillén, Luisa Marquez, Miguel Pasadas: Hybridization of intelligent techniques and ARIMA models for time series prediction. Fuzzy Sets and Systems 159(7): 821-845 (2008). Índice De Impacto: 1.833, 13 de 175, (Q1)

56. Razvan Ghinea, María M. Pérez, Luis J. Herrera, María José Rivas, Ana Yebra, and Rade D. Paravina. Color difference thresholds in dental ceramics. Journal of Dentistry, 38:57–64, 2010. Índice De Impacto: 2.000, 16 de 64, (Q1)

57. Ginés Rubio, Luis Javier Herrera, Héctor Pomares, Ignacio Rojas, Alberto Guillén: Design of specific-to-problem kernels and use of kernel weighted K-nearest neighbours for time series modelling. Neurocomputing 73(10-12): 1965-1975 (2010). Índice De Impacto: 1.440, 47 de 103, (Q2)

58. Alberto Guillén, Luis Javier Herrera, Ginés Rubio, Héctor Pomares, Amaury Lendasse, Ignacio Rojas: New method for instance or prototype selection using mutual information in time series prediction. Neurocomputing 73(10-12): 2030-2038 (2010). Índice De Impacto: 1.440, 47 de 103, (Q2)

59. Francisco J. Liébana-Cabanillas, R. Nogueras, Luis Javier Herrera, Alberto Guillén: Analysing user trust in electronic banking using data mining methods. Expert Syst. Appl. 40(14): 5439-5447 (2013). Índice De Impacto: 1.854, 13 de 79, (Q1)

60. Luis Javier Herrera, Carlos M. Fernandes, Antonio Miguel Mora, Daria Migotina, Rogerio Largo, Alberto Guillén, Agostinho C. Rosa: Combination of Heterogeneous EEG Feature Extraction Methods and stacked Sequential Learning for Sleep Stage Classification. Int. J. Neural Syst. 23(3) (2013). Índice De Impacto: 6.056, 3 de 121, (Q1)

61. Victoria Lafuente, Luis Javier Herrera, María del Mar Pérez, Jesús Val, Ignacio Negueruela: Firmness prediction in Prunus persica ‘Calrico’ peaches by Visible/short wave near infrared spectroscopy and acoustic measurements using optimized linear and non-linear chemometric models, Journal of the Science of Food and Agriculture, Vol, 95, issue 10, pp 2033-2040, doi: 10.1002/jsfa.6916. 2015 (Q1)

62. Ho, DK, Ghinea, R, Herrera, LJ, Angelov, N, Paravina, RD, Color Range and Color Distribution of Healthy Human Gingiva: a Prospective Clinical Study, Scientific Reports, vol 5, 2015. (Q1)

63. Liebana-Cabanillas, F.; Herrera, L. J.; Guillen, A. Variable selection for payment in social networks: Introducing the Hy-index, Computers in Human Behavior, Volume: 56, pp. 45-55, 2016. (Q1)

64. Perez, Maria del Mar, Ghinea, R, Rivas, M YeJ,bra, A, Ionescu, AM, Paravina, RD, Herrera, LJ, Development of a customized whiteness index for dentistry based on CIELAB color space, Dental Materials, Vol: 32, N 3, pp 461-467. 2016. (Q1)

65. R.A.Norman, B.A.Greger, P.House, S.F.Romero, F.Pelayo, E: Fernández. : "Toward the development of a cortically based visual neuroprosthesis". Journal of Neural Engineering. ISSN 1741-2560 (Print), ISSN 1741-2552 (Online). Vol. 6 (2009) 035001 (8pp). (Q1)

66. Miguel Ángel López Gordo; Daniel Sanchez Morillo; Francisco Pelayo Valle. Dry EEG Electrodes. Sensors. 14, pp. 12847 - 12870. Basel (Switzerland): MDPI, 01/07/2014. Available on-line at: <http://www.mdpi.com/journal/sensors>. ISSN 1424-8220. (Q1)

67. Miguel Angel Lopez Gordo; M. D. Grima Murcia; Pablo Padilla; F. Pelayo; E. Fernandez.: "Asynchronous Detection of Trials onset from Raw EEG signals". International Journal of Neural Systems. (United States of America): 30/04/2016. Available on-line at: <http://www.worldscientific.com/action/doSearch?PubIdSpan=10.1142%2FS012906571450035X>. ISSN 0129-0657. (Q1)

68. Miguel Lopez Gordo; Francisco Pelayo; Eduardo Fernandez; Pablo Padilla.: "Phase-shift keying of EEG signals: Application to detect attention in multitalker scenarios". Signal Processing. 117, pp. 165 - 173. Elsevier, 21/05/2015. (Q1)

69. Miguel Angel Lopez Gordo; Francisco Jose Pelayo Valle.: "A Binary Phase-Shift Keying Receiver For The Detection Of Attention To Human Speech". International Journal of Neural Systems. 23 - 4, pp. 1350016-1 - 1350016-12. 2013. (Q1)

70. Miguel Angel Lopez Gordo; Francisco Jose Pelayo Valle; Alberto Prieto Espinosa; Fernandez-Jover, Eduardo: "An Auditory Brain-Computer Interface with Accuracy Prediction". International Journal of Neural Systems. 22, pp. 1250009 - 1250022. 2012. (Q1)

71. Miguel Angel Lopez Gordo; Fernandez, Eduardo; Samuel Francisco Romero García; Francisco Jose Pelayo Valle; Alberto Prieto Espinosa. "An auditory brain-computer interface evoked by natural speech". Journal of Neural Engineering. pp. 036013 - 036013. 2012. (Q1)

72. Miguel Angel Lopez Gordo; Héctor Pomares Cintas; Francisco Jose Pelayo Valle; José Miguel Urquiza Ortiz; Javier Perez Florido. Evidences Of Cognitive Effects Over Auditory Steady-State Responses By Means Of Artificial Neural Networks And Its Use In Brain-Computer Interfaces. Neurocomputing. 72 - 16-18, pp. 3617 - 3623. 2009. (Q2)

73. Miguel Angel Lopez Gordo; Francisco Pelayo Valle; Eduardo Madrid; Alberto Prieto. Statistical Characterization of Steady-State Visual Evoked Potentials and Their Use in Brain–Computer Interfaces. Neural Processing Letters. 29- 3, 2009. (Q2)

74. R. Rodriguez-Gomez, E. J. Fernandez-Sanchez, J. Diaz, E. Ros, "Codebook hardware implementation on FPGA for background subtraction," Journal of Real-Time Image Processing, 10 (1), pp. 43-57, 2015. DOI: 10.1007/s11554-012-0249-6 (Q1)

75. F. Barranco, M. Tomasi, M. Vanegas, J. Díaz, S. Granados, E. Ros, "Hierarchical architecture for motion and depth estimations based on color cues," Journal of Real-Time Image Processing, vol 10 (2), pp. 435-452, 2015. DOI: 10.1007/s11554-012-0294-1 (Q1)

76. F. Barranco, J. Diaz, B. Pino and E. Ros. "Real-Time Visual Saliency Architecture for FPGA with Top-Down Attention Modulation", IEEE Transactions on Industrial Informatics, vol 10 (3), pp. 1726-1735, 2014, DOI: http://dx.doi.org/10.1109/TII.2014.2319581 (Q1)

77. EJ Fernandez-Sanchez, L. Rubio, J Diaz, E Ros, "Background subtraction model based on color and depth cues", Machine Vision and Applications, Volume 25, Issue 5, pp 1211-1225, 2014. DOI: 10.1007/s00138-013-0562-5 (Q2)

78. EJ Fernandez-Sanchez, J Diaz, E Ros, "Background Subtraction Based on Color and Depth Using Active Sensors, "Sensors vol. 13 (7), pp. 8895-8915, 2013. DOI: http://dx.doi.org/10.3390/s130708895 (Q1)

79. S. Granados, F. Barranco, S. Mota, J. Díaz, E. Ros, "On-chip semidense representation map for dense visual features driven by attention processes," Journal of Real-Time Image Processing, 2013; DOI:10.1007/s11554-012-0320-3 (Q1).

80. F. Barranco, M. Tomasi, J. Díaz, M. Vanegas, E. Ros, "Pipelined architecture for real-time cost-optimized extraction of visual primitives based on FPGAs," Digital Signal Processing, Vol. 23 (2), pp. 675-688, 2013. DOI: 10.1016/j.dsp.2012.09.017 (Q2)

81. F Barranco, J Díaz, B Pino, E Ros, "A multi-resolution approach for massively-parallel hardware-friendly optical flow estimation," Journal of Visual Communication and Image Representation, Vol. 23 (8), pp. 1272-1283, 2012. DOI: 10.1016/j.jvcir.2012.09.004 (Q2)

82. F. Barranco, J. Diaz, A. Gibaldi, S. Sabatini, E. Ros, "Vector Disparity Sensor with Vergence Control for Active Vision Systems," Sensors Vol. 12 (2), pp. 1771-1799, 2012. DOI: 10.3390/s120201771 (Q1)

83. M. Tomasi, M. Vanegas, F. Barranco, J. Díaz, E. Ros, "Real-Time Architecture for a Robust Multi-Scale Stereo Engine on FPGA," IEEE Transactions on Very Large Scale Integration (VLSI) Systems, Vol. 20 (12), pp. 2208-2219, 2012. DOI: 10.1109/tvlsi.2011.2172007 (Q1)

84. R. Rodriguez-Gomez, E. Fernandez-Sanchez, J. Diaz and E. Ros, "FPGA implementation for real-time background subtraction based on Horprasert model." Sensors, vol. 12, pp. 585-611, 2012, DOI: 10.3390/s120100585 (Q1)

85. K. Pauwels, M. Tomasi, J. Díaz, E. Ros, M. M. Van Hulle, "A Comparison of FPGA and GPU for Real-Time Phase-based Optical Flow, Stereo, and Local Image Features IEEE Trans. on Computers, Vol. 61 (7), pp. 999-1012, 2012, DOI: 10.1109/TC.2011.120 (Q1)

86. M. Tomasi, M. Vanegas, F. Barranco, J. Díaz, and E. Ros. Massive parallel-hardware architecture for multi-scale stereo, optical flow, and image structure computation. IEEE Transactions on Circuits and Systems for Video Technology, Vol 22, (2), pp. 282-294, 2012. (Q1)

87. F. Barranco, M. Tomasi, J. Diaz, M. Vanegas, E. Ros, "Parallel Architecture for Hierarchical Optical Flow Estimation Based on FPGA," IEEE Transactions on Very Large Scale Integration (VLSI) Systems, Vol. 20 (6), pp. 1058-1067, 2012, DOI: 10.1109/TVLSI.2011.2145423 (Q2)

88. J. Ralli, J. Díaz, S. Kalkan, N. Krüger, E. Ros, Disparity disambiguation by fusion of signal- and symbolic-level information. Machine Vision and Applications, 23(1), 65-77, 2012. DOI: 10.1007/s00138-010-0266-z.(Q2)

89. J. Ralli, J. Díaz, E. Ros, "Spatial and temporal constraints in variational correspondence methods," Machine Vision and Applications, pp. 1-13, 2011. DOI: 10.1007/s00138-011-0360-x. (Q2)

90. P. Guzmán, J. Díaz, J. Ralli, R. Agís, E. Ros, Low-cost sensor to detect overtaking based on optical-flow, Machine Vision and Applications, pp. 1-13, 2011 DOI: 10.1007/s00138-011-0392-2 (Q2)

91. M. Tomasi, M. Vanegas, F. Barranco, J. Díaz and E. Ros, "High-performance optical flow architecture based on a multi-scale, multi-orientation phase-based model, IEEE Transactions on Circuits and Systems for Video Technology, Vol. 20 (11), 2010, pp. 1797 - 1807. DOI: 10.1109/TCSVT.2010.2087590. (Q1)

92. P. Guzmán, J. Díaz, R. Agís, E. Ros, "Optical Flow in a Smart Sensor Based on Hybrid Analog-Digital Architecture." Sensors 10, no. 4, pp. 2975-2994, 2010, DO: DOI = 10.3390/s100402975. (Q1)

93. S. P. Sabatini, G. Gastaldi, F. Solari, K. Pauwels, M. M. Van Hulle, J. Diaz, E. Ros, N. Pugeault, N. Kruger, A compact harmonic code for early vision based on anisotropic frequency channels, Computer Vision and Image Understanding, Volume 114, Issue 6, June 2010, pp. 681-699, DOI: 10.1016/j.cviu.2010.03.008. (Q2)

94. R. Baños, C. Gil, B. Paechter, J. Ortega: "Parallelization of Population-based Multi-Objective Metaheuristics: An Empirical Study". Applied Mathematical Modelling, 30/7 (2006) 578-592 (Q2).

95. M. Palomares, J. González, E. Ros, A. Prieto, General Logarithmic Image Processing, IEEE Transactions on Image Processing, 15(11), pp. 3602-3608, 2006. (Q1)

96. E. Ros, R. Carrillo, E. M. Ortigosa, B. Barbour, R. Agís, Event-driven simulation scheme for spiking neural networks using look-up tables to characterize neuronal dynamics, Neural Computation, 18(12), pp. 2959-2993, 2006. (Q1)

97. E. Ros, E.M. Ortigosa, R. Agís, M. Arnold, R. Carrillo, Real time computing platform for spiking neurons (RT-Spike), IEEE Transactions on Neural Networks. 17(4), pp. 1050-1063, 2006 (Q1)

98. R. R. Carrillo, E. Ros, B. Barbour, C. Boucheny, O. Coenen. Event-driven simulation of neural population synchronization facilitated by electrical coupling. Biosystems, 87, 275–280, 2007. (Q2)

99. R. R. Carrillo, E. Ros, C. Boucheny, O. J.-M. D. Coenen, A real-time spiking cerebellum model for learning robot control, Biosystems, 94, pp. 18-27, 2008. (Q2)

100. R. R. Carrillo, E. Ros, S. Tolu, T. Nieus, E. D'Angelo, Event-driven simulation of cerebellar granule cells, Biosystems, 94, pp. 10-17, 2008. (Q2)

101. E. D'Angelo, S.K.E. Koekkoek, P. Lombardo, S. Solinas, E. Ros, J. Garrido, M. Schonewille, C.I. De Zeeuw, Timing in the Cerebelllum: Oscillations and Resonance in the Granular Layer, Neuroscience 162, 805–815, 2009. (Q2)

102. N. R. Luque, J. A. Garrido, R.R. Carrillo, O.J. –M.D. Coenen, E. Ros, Cerebellar Input Configuration Toward Object Model Abstraction in Manipulation Tasks, IEEE Transactions on Neural Networks, 22(8): 1321-1328, 2011. (Q1)

103. N. R. Luque, J.A. Garrido, R.R. Carrillo, O. J. M. D. Coenen, E. Ros, Cerebellar-like corrective-model abstraction engine for robot movement control. IEEE Transaction on systems, man, and cybernetics – Part B. 41(5), 1299-1312, 2011. DOI: 10.1109/TSMCB.2011.2138693. (Q1)

104. N.R. Luque, J.A. Garrido, R.R. Carrillo, S. Tolu, E. Ros, Adaptive Cerebellar spiking model embedded in the control loop: context switching. International Journal of Neural Systems, 21(5): 385-401, 2011. DOI: 10.1142/S0129065711002900. (Q1)

105. N. R. Luque, J. A. Garrido, J. Ralli, J. J. Laredo, E. Ros, From sensors to spikes: Evolving receptive fields to enhance sensorimotor information in a robot-arm. International Journal of Neural Systems. 22(4), 1250013, 2012. DOI: 10.1142/S012906571250013X. (Q1)

106. S. Tolu, M. Vanegas, N. R. Luque, J. A. Garrido, E. Ros, Bio-inspired adaptive feedback error learning architecture for motor control. Biological Cybernetics, 106(8-9), 507-522, 2012. (Q1)

107. S. Tolu, M. Vanegas, J.A. Garrido, N. R. Luque, E. Ros, Adaptive and Predictive Control of a Simulated Robot Arm, International Journal of Neural Systems, 23(3), 1350010, 2013. DOI: 10.1142/S012906571350010X. (Q1)

108. J.A. Garrido, E. Ros and E. D'Angelo, Spike timing regulation on the millisecond scale by distributed synaptic plasticity at the cerebellum input stage: a simulation study. Frontiers in Computational Neuroscience. 7, 64. 2013. doi: 10.3389/fncom.2013.00064, (Q1)

109. L. L. Bologna, J. Pinoteau, J.B. Passot, J. A. Garrido, J. Vogel, E. Ros Vidal and A. Arleo, A closed-loop neurobotic system for fine touch sensing, Journal of Neural Engineering, 10, 2013. 046019 (16pp). doi:10.1088/1741-2560/10/4/046019. (Q1)

110. J. A Garrido Alcazar, N. R. Luque, E. D'Angelo, E. Ros, Distributed cerebellar plasticity implements adaptable gain control in a manipulation task: a closed-loop robotic simulation. Frontiers in Neural Circuits. 7, 159, 1-20, 2013. doi: 10.3389/fncir.2013.00159, (Q2)

111. N. R. Luque, J.A. Garrido, R.R. Carrillo, E. D'Angelo, E. Ros, Fast convergence of learning requires plasticity between inferior olive and deep cerebellar nuclei in a manipulation task: a closed-loop robotic simulation. Frontiers in Computational Neuroscience, Vol 8, Article 97, 1-16, 2014. DOI: 10.3389/fncom.2014.00097. (Q2)

112. C. Casellato, A. Antonietti, J. A. Garrido, R. R. Carrillo, N. R. Luque, E. Ros, A. Pedrocchi, E. D'Angelo, Adaptive Robotic Control Driven by a Versatile Spiking Cerebellar Network. PLOS ONE, 9(11), e112265, 2014. (Q1)

113. F. Naveros, N. R. Luque, J. A. Garrido, R.R. Carrillo, M. Anguita, E. Ros, A spiking neural simulator integrating event-driven and time-driven computation schemes using parallel CPU-GPU co-processing. A case study. IEEE Transactions on Neural Networks and Learning Systems, 26(7), 1567 – 1574, 2015. (Q1)

114. K. Pauwels, L. Rubio, E. Ros, Real-time Pose Detection and Tracking of Hundreds of Objects. IEEE Transactions on Circuits and Systems for Video Technology. 2015. (Q1)

115. N. R. Luque, J. A. Garrido, F. Naveros, R. R Carrillo, E. D'Angelo, E. Ros, Distributed Cerebellar Motor Learning: A Spike-Timing-Dependent Plasticity Model, Frontiers in computational neuroscience, 10:17, 2016. DOI: 10.3389/fncom.2016.00017. (Q1)

116. C. Richter, S. Jentzsch, R. Hostettler, J. A Garrido, E. Ros, A.C. Knoll, F. Röhrbein, P. van der Smagt, J. Conradt, Scalability in Neural Control of Musculoskeletal Robots. IEEE Robotics and Automation Magazine. (Accepted. In press) 2016. (Q1)

117. F.J. Estévez, P. Glösekötter, J. González: "DARAL: A Dynamic and Adaptive Routing Algorithm for Wireless Sensor Networks". Sensors, 2016. (Q1).

118. J. Minguillón Campos, M.A. Lopez Gordo and F.J. Pelayo Valle, "Stress Assessment by Prefrontal Relative Gamma", Frontiers in Computational Neuroscience, vol.10 , 1-9, 2016. (Q2)

119. F.J. Liebana Cabanillas, L.J. Herrera Maldonado and A. Guillén Perales, "Variable selection for payment in social networks: Introducing the Hy-index", Computers in Human Behavior, vol.56 , 45-55, 2016. (Q1)

120. A. Guillén Perales "Variable selection for payment in social networks: Introducing the Hy-index", Computers in Human Behavior, vol.53, 45-55, 2016. . (Q1)

121. A. Prieto Espinosa, B. Prieto Campos, E. Martínez Ortigosa, E. Ros Vidal, F.J. Pelayo Valle, J. Ortega Lopera and I. Rojas, "Neural networks: An overview of early research, current frameworks and new challenges", Neurocomputing , 242-268, 2016. (Q1)

122. C. Villalonga, M. Razzaq, W. Khan, H. Pomares, I. Rojas, S. Lee and O. Baños, "Ontology-Based High-Level Context Inference for Human Behavior Identification", Sensors, vol.16 , 1-26, 2016. (Q1)

123. J.A. Garrido Alcázar, N.R. Luque Sola, S. Tolu and E. D'angelo, "Oscillation-Driven Spike-Timing Dependent Plasticity Allows Multiple Overlapping Pattern Recognition in Inhibitory Interneuron Networks", International Journal of Neural Systems, vol.26 , -, 2016. (Q1)

124. J.A. Garrido Alcázar and E. Ros Vidal, "Scalability in Neural Control of Musculoskeletal Robots", IEEE Robotics and Automation Magazine, 2016. (Q1)

125. J.A. Garrido Alcázar, N.R. Luque Sola, F. Naveros Arrabal and E. Ros Vidal, "Spiking Neural Network With Distributed Plasticity Reproduces Cerebellar Learning in Eye Blink Conditioning Paradigms.", IEEE Transactions on Biomedical Engineering, vol.63 , 210-219, 2016. (Q1)

126. E. Alameda Hernandez, F. Gil-Montoya, M.J. Mercado Vargas, G. Botella Juan and F. Manzano-Agugliaro, "Higher-order statistics for power systems: Effects of the sampling frequency on ergodicity", Applied Mathematical Modelling, vol.50, 6924-6933, 2016. (Q1)

127. I. Rojas "Identification of gene expression profiling associated with erlotinib-related skin toxicity in pancreatic adenocarcinoma patients", Toxicology and applied pharmacology, vol.311, 113-116, 2016. (Q1)

128. O. Caba Pérez, A. Irigoyen, C. Jiménez Luna, M. Benavides, F.M. Ortuño Guzmán, J. Gallego, I. Rojas, C. Guillen-Ponce, C. Torres Perales, E. Aranda and J.C. Prados Salazar, "Identification of gene expression profiling associated with erlotinib-related skin toxicity in pancreatic adenocarcinoma patients.", Toxicology and Applied Pharmacology, vol.311 , 113-116, 2016. (Q1)

129. G. Ruiz García, H. Hagras, H. Pomares, I. Rojas and H. Bustince , "Join and Meet operations for Type-2 Fuzzy Sets with Non-Convex Secondary Memberships", IEEE Transactions on Fuzzy Systems, vol.24, 1000-1008, 2016. (Q1)

130. .A. Km3net Collaboration, S. Navas Concha and A.F. Diaz Garcia, "Letter of intent for KM3NeT 2.0", Journal of Physics G: Nuclear and Particle Physics, vol.43, 1-130, 2016. (Q2)

131. J.A. Garrido Alcázar, N.R. Luque Sola and E. Ros Vidal, "Modeling the Cerebellar Microcircuit: New Strategies for a Long-Standing Issue.", Frontiers In Cellular Neuroscience, vol.10, 2016. (Q1)

132. F.J. Estévez, P. Glösekötter and J. González, "DARAL: A Dynamic and Adaptive Routing Algorithm for Wireless Sensor Networks", Sensors, vol.16, 2016. (Q1)

133. A. Guillén Perales, L.J. Herrera Maldonado, H. Pomares, I. Rojas and F.J. Liebana Cabanillas, "Decision Support System to Determine Intention to Use Mobile Payment Systems on Social Networks: A Methodological Analysis", International Journal of Intelligent Systems, vol.31, 153-172, 2016. (Q1)

134. J. Minguillón Campos, M.A. Lopez Gordo and F.J. Pelayo Valle, "Detection of Attention in Multi-Talker Scenarios: a Fuzzy Approach", Expert Systems With Applications, vol.64, 261-268, 2016. (Q1)

135. M.D.M. Pérez Gómez, R.I. Ghinea, M.J. Rivas Bravo, A.M. Yebra Rodríguez, A. Ionescu and L.J. Herrera Maldonado, "Development of customized whitenees index for dentistry based on CIELAB color space", Dental Materials, vol.32 , 461-467, 2016. (Q1)

136. N.R. Luque Sola, J.A. Garrido Alcázar, F. Naveros Arrabal, R.R. Carrillo Sanchez and E. Ros Vidal, "Distributed Cerebellar Motor Learning: A Spike-Timing-Dependent Plasticity Model", Frontiers in Computational Neuroscience, vol.10, 2016. (Q2)

137. J.A. Garrido Alcázar, N.R. Luque Sola and E. Ros Vidal, "Distributed Circuit Plasticity: New Clues for the Cerebellar Mechanisms of Learning", Cerebellum, vol.15, 139-151, 2016. (Q2)

138. S. Al-Baddai, A. Neubauer, A.M. Tomé, V. Vigneron, D. Salas González, J.M. Gorriz Saez, C. Garcia Puntonet and E. Lang-, "Functional biomedical images of Alzheimer¿s disease. A green¿s function-based empirical mode decomposition study", Current Alzheimer Research, vol.13, 695-707, 2016. (Q2)

139. P. Martínez-Cañada, C.A. Morillas Gutiérrez, M.B.D. Pino Prieto, E. Ros Vidal and F.J. Pelayo Valle, "A computational framework for realistic retina modeling", International Journal of Neural Systems, vol.26 , 1-18, 2016. (Q1)

140. F. Barranco Expósito, C. Fermuller, Y. Aloimonos and T. Delbruck, "A Dataset for Visual Navigation with Neuromorphic Methods", Frontiers in Neuroscience, vol.10, 2016. (Q2)

141. R. Garcia, R. Becerra, C. Velázquez, F. Rojas Ruiz, G. Joya-Caparros, C. Torres and G. Demera, "An assessment of wavelet based differentiation of noisy electro-oculographic records", International Journal of Psychophysiology, vol.108 , 170-170, 2016. (Q2)

142. R. Baños Navarro, J. Ortega Lopera, C. Gil-Montoya, F.J. De Toro Negro and M.D. Gil-Montoya, "Analysis of OpenMP and MPI implementations of meta-heuristics for vehicle routing problems", Applied Soft Computing, vol.43 , 262-275, 2016. (Q1)

143. M.A. Lopez Gordo, P. Padilla De La Torre and F.J. Pelayo Valle, "Asynchronous Detection of Trials Onset from Raw EEG Signals", International Journal of Neural Systems, vol.26, 2016. (Q1)

144. J. Minguillón Campos, M.A. Lopez Gordo and F.J. Pelayo Valle, "Trends in EEG-BCI for daily-life: Requirements for artifact removal", Biomedical Signal Processing and Control, vol.31, 407-418, 2017. (Q2)

145. C. Villalonga, H. Pomares, I. Rojas and O. Baños, "MIMU-Wear: Ontology-based sensor selection for real-world wearable activity recognition", Neurocomputing, vol.250, 76-100, 2017. (Q1)

146. E.A. Antares Collaboration, S. Navas Concha and A.F. Diaz Garcia. "Multi-messenger Observations of a Binary Neutron Star Merger", The Astrophysical Journal Letters, vol.848, 1-59, 2017. (Q1)

147. J.J. Escobar Pérez, J. Ortega Lopera, J. González, M. Damas and A.F. Diaz Garcia, "Parallel high-dimensional multi-objective feature selection for EEG classification with dynamic workload balancing on CPU-GPU architectures", Cluster Computing, vol.20, 1881-1897, 2017. (Q2)

148. C. Fermuller, F. Wang, Y. Yang, K. Zampogiannis, Y. Zhang, F. Barranco Expósito and M. Pfeiffer, "Prediction of manipulation actions", International Journal of Computer Vision, 2017. (Q1)

149. E.A. Antares Collaboration, S. Navas Concha and A.F. Diaz Garcia, "Search for High-energy Neutrinos from Binary Neutron Star Merger GW170817 with ANTARES, IceCube, and the Pierre Auger Observatory", The Astrophysical Journal Letters, vol.850, 1-18, 2017. (Q1)

150. F.J. Estévez-Ortiz, J. González, P. Glösekötter, O. Valenzuela Cansino and I. Rojas, "Statistical Analysis of the Main Configuration Parameters of the Network Dynamic and Adaptive Radio Protocol (DARP)", Sensors, vol.17 , 1502-, 2017. (Q1)

151. F. Naveros Arrabal, J.A. Garrido Alcázar, R.R. Carrillo Sanchez, E. Ros Vidal and N.R. Luque Sola, "Event-and Time-Driven Techniques Using Parallel CPU-GPU Co-processing for Spiking Neural Networks", Frontiers In Neuroinformatics, vol.11 , 2017. (Q1)

152. P. Martínez-Cañada, C.A. Morillas Gutiérrez, H.E. Plesser, S.F. Romero García and F.J. Pelayo Valle, "Genetic algorithm for optimization of models of the early stages in the visual system", Neurocomputing, vol.250 , 101-108, 2017. (Q1)

153. R. Hernández Palacios, A.F. Diaz Garcia, M. Anguita Lopez, J. Ortega Lopera and C. Rodríguez-Quintana, "High-throughput multi-multicast transfers in data center networks", Journal of Supercomputing, vol.73 , 152-163, 2017. (Q2)

154. J. Valenzuela Valdés, M.A. Lopez Gordo, P. Padilla De La Torre and J. Minguillón Campos, "Human Neuro-Activity for Securing Body Area Networks: Application of Brain-Computer Interfaces to People-Centric Internet of Things", IEEE Communications Magazine, vol.55, 62-67, 2017. (Q1)

155. E.A. Km3net Collaboration, S. Navas Concha and A.F. Diaz Garcia, "Intrinsic limits on resolutions in muon- and electron-neutrino charged-current events in the KM3NeT/ORCA detector", Journal of High Energy Physics, vol.1705, 1-29, 2017. (Q1)

156. F.J. Estévez-Ortiz, J.M. Castillo-Secilla, J. González, J. Olivares-Bueno and P. Glösekötter, "mDARAL: A Multi-Radio Version for the DARAL Routing Algorithm", Sensors, vol.17 , 324-340, 2017. (Q1)

157. P. Martínez-Cañada and E. Ros Vidal, "Connecting Artificial Brains to Robots in a Comprehensive Simulation Framework: The Neurorobotics Platform", Frontiers in Neurorobotics, vol.11, -, 2017. (Q2)

158. R. Hernández Palacios, C. Rodríguez-Quintana, A.F. Diaz Garcia, M. Anguita Lopez and J. Ortega Lopera, "Evaluation of redundant data storage in clusters based on multi-multicast and local storage", Journal of Supercomputing, vol.73 , 576-590, 2017. (Q2)

159. E. Castillo Morales, A. Lloris Ruiz, D.P. Morales Santos, L. Parrilla Roure, A. García Ríos and G. Botella Juan, "A new area-efficient BCD-digit multiplier", Digital Signal Processing, vol.62 , 1-10, 2017. (Q2)

160. M. Saval-Calvo, L. Medina-Valdés, J.M. Castillo-Secilla, S. Cuenca-Asensi, A. Martínez Álvarez and J. Villagra, "A Review of the Bayesian Occupancy Filter", Sensors, vol.17 , 344-362, 2017. (Q1)

161. P. Martin Smith, J. Ortega Lopera, J. Asensio-Cubero, J.Q. Gan and A. Ortiz-García, "A supervised filter method for multi-objective feature selection in EEG classification based on multi-resolution analysis for BCI", Neurocomputing , 45-56, 2017. (Q2)

162. E.A. Antares Collaboration, S. Navas Concha and A.F. Diaz Garcia, "All-sky search for high-energy neutrinos from gravitational wave event GW170104 with the Antares neutrino telescope", European Physical Journal C, Particles And Fields (Print), vol.77 , 1-7, 2017. (Q1)

163. E.A. Antares Collaboration, S. Navas Concha and A.F. Diaz Garcia, "An Algorithm for the Reconstruction of Neutrino-induced Showers in the ANTARES Neutrino Telescope", The Astronomical Journal, vol.154, 1-9, 2017. (Q2)

164. O. Baños, H. Hermens, C. Nugent and H. Pomares, "Smart Sensing Technologies for Personalised e-Coaching", Sensors, vol.18 , 1-4, 2018. (Q1)

165. Bang, J., Hur, T., Kim, D., Huynh-The, T., Lee, J., Banos, O., Kim, J.-I., Lee, S. “Adaptive Data Boosting Technique for Robust Personalized Speech Emotion in Emotionally-Imbalanced Small-Sample Environments”. Sensors, vol. 18, no. 11, pp. 1-21, 2018. (Q1)

166. Banos, O., Nugent, C. “M-Coaching: Towards the Next Generation of Mobile-Driven Healthcare Support Services”. Computer, vol. 51, no. 8, pp. 14-17, 2018. (Q1)

167. Banos, O., Nugent, C. “E-Coaching for Health”. Computer, vol. 51, no. 3, pp. 12-15, 2018. (Q1)

168. Hussain, J., Ul-Hassan, A., Ali, R., Afzal, M., Hussain, S., Bang, J., Banos, O., Lee, S. “Model-Based Adaptive User Interface based on Context and User Experience Evaluation. Journal on Multimodal User Interfaces”, vol. 12, no. 1, pp. 1-16, 2018. (Q2)

169. Siddiqi, M. H., Ali, M., Abdelrahman Eldib, M. E., Khan, A., Banos, O., Khan, A. M., Lee, S., Choo, H. “Evaluating Real-life Performance of the State-of-the-art in Facial Expression Recognition using a Novel YouTube-based Datasets”. Multimedia Tools and Applications, vol. 77, no. 1, pp. 917-937, 2018. (Q2)

170. E.A. Antares Collaboration, S. Navas Concha and A.F. Diaz Garcia, "The search for high-energy neutrinos coincident with fast radio bursts with the ANTARES neutrino telescope", Monthly Notices of the Royal Astronomical Society, vol.482, 184-193, 2018. (Q1)

171. E.A. Antares Collaboration, S. Navas Concha and A.F. Diaz Garcia, "The Search for Neutrinos from TXS 0506+056 with the ANTARES Telescope", The Astrophysical Journal Letters, vol.863, 1-6, 2018. (Q2)

172. A. Romero, J. González, R. Picos, M.J. Deen and J.A. Jimenez Tejada, "Evolutionary parameter extraction for an organic TFT compact model including contact effects", Organic electronics, vol.61, 242-253, 2018. (Q1)

173. E.A. Antares Collaboration, S. Navas Concha and A.F. Diaz Garcia, "Long-term monitoring of the ANTARES optical module efficiencies using 40K decays in sea water", European Physical Journal C, Particles And Fields (Print), vol.78 , 1-8, 2018. (Q1)

174. J.J. Escobar Pérez, J. Ortega Lopera, A.F. Diaz Garcia, J. González and M. Damas, "A Power-Performance Perspective to Multiobjective Electroencephalogram Feature Selection on Heterogeneous Parallel Platforms", Journal of Computational Biology, vol.25 , 2018. (Q2)

175. E.A. Antares Collaboration, S. Navas Concha and A.F. Diaz Garcia, "All-flavor Search for a Diffuse Flux of Cosmic Neutrinos with Nine Years of ANTARES Data", The Astrophysical Journal Letters, vol.853, 1-5, 2018. (Q1)

176. Luis Gutierrez-Rivas, Jose; Lopez-Jimenez, Jose; Ros, Eduardo; Diaz, Javier. "White Rabbit HSR: A Seamless Subnanosecond Redundant Timing System With Low-Latency Data Capabilities for the Smart Grid", IEEE TRANSACTIONS ON INDUSTRIAL INFORMATICS 14 8 3486 3494 2018. (Q1)

177. Ramos, Francisco; Luis Gutierrez-Rivas, Jose; Lopez-Jimenez, Jose; Caracuel, Benito; Diaz, Javier. "Accurate Timing Networks for Dependable Smart Grid Applications", IEEE TRANSACTIONS ON INDUSTRIAL INFORMATICS 14 5 2076 2084 2018. (Q1)

178. Pablo Martínez-Cañada, Milad Hobbi Mobarhan, Geir Halnes, Marianne Fyhn, Christian Morillas, Francisco Pelayo, Gaute T. Einevoll: "Biophysical network modeling of the dLGN circuit: Effects of cortical feedback on spatial response properties of relay cells". PLOS Computational Biology 14(1): e1005930. 2018. (Q1)

179. J. Minguillon, E. Perez, M. Lopez-Gordo, F. Pelayo, y M. Sanchez-Carrion: "Portable System for Real-Time Detection of Stress Level". Sensors, vol. 18, n.º 8, p. 2504, 15 páginas. Agosto, 2018. (Q2)

180. Antonio Irigoyen, Cristina Jimenez-Luna, Manuel Benavides, Octavio Caba, Javier Gallego, Francisco Manuel Ortuño, Carmen Guillen-Ponce, Ignacio Rojas, Enrique Aranda, Carolina Torres, Jose Prados. "Integrative multi-platform meta-analysis of gene expression profiles in pancreatic ductal …", PLOS ONE Vol.13, N.4, APR 4 2018. (Q2)

181. Gálvez JM, Castillo D, Herrera LJ, San Román B., Valenzuela O., Ortuño FM., Rojas I. "Multiclass classification for skin cancer profiling based on the integration of heterogeneous gene expression series", PLOS ONE 13(5), MAY 11, 2018. (Q2)

182. Valenzuela O., Jiang X., Carrillo A., Rojas I. "Multi-Objective Genetic Algorithms to find Most Relevant Volumes of the Brain related to Alzheimer's …" INTERNATIONAL JOURNAL OF NEURAL SYSTEMS, 28 APRIL 2018. (Q1)

183. R.R. Carrillo, F. Naveros, E. Ros & N.R. Luque. A Metric for Evaluating Neural Input Representation in Supervised Learning Networks. Front. Neurosci., 12. pp. 923. 2018. (Q2)

184. P. Martínez-Cañada, C. Morillas, F. Pelayo: "A Neuronal Network Model of the Primate Visual System: Color Mechanisms in the Retina, LGN and V1". International Journal of Neural Systems. ISSN: 0129-0657, Vol. 29, Issue 2, 1850036 (2019), 22, 2019. (Q1)

185. Ruiz-Garcia G., Hagras Hani, Pomares H., Rojas Ruiz, I. "Toward a Fuzzy Logic System Based on General Forms of Interval Type-2 Fuzzy Sets". IEEE Transactions on Fuzzy Systems, 27, 12, 2381-2395, 2019. (Q1)

186. Miguel Jiménez-López, Felipe Torres-González, José Luís Gutiérrez-Rivas, Manuel Rodríguez-Álvarez, Javier Díaz. "A Fully Programmable White-Rabbit node for the SKA Telescope PPS Distribution System". IEEE Transactions on Instrumentation and Measurement, Vol. 68, nº 2, pp. 632-641, 2019. (Q1)

187. Abadía, I., Naveros, F., Garrido, J. A., Ros, E., & Luque, N. R. "On Robot Compliance: A Cerebellar Control Approach". IEEE transactions on cybernetics. (in press), 2019. (Q1)

188. D. Castillo , J.M. Galvez, L.J. Herrera, F. Rojas, O. Valenzuela, O. Caba, J. Prados, I. Rojas. "Leukemia multiclass assessment and classification from Microarray and RNA-seq technologies integration at gene expression level". PLOS ONE 14(2), 2019. (Q1)

189. Bailon, C., Damas, M., Pomares, H., Sanabria, D., Perakakis, P., Goicoechea, C., Banos, O. “Smartphone-Based Platform for Affect Monitoring through Flexibly Managed Experience Sampling Methods”. Sensors, vol. 19, no. 3430, pp. 1-23, 2019. (Q1)

190. Escobar, J.J., Ortega, J., Díaz, A.F. et al. Time-energy analysis of multilevel parallelism in heterogeneous clusters: the case of EEG classification in BCI tasks. J Supercomput 75(7). 3397–3425. 2019. (Q2)

191. González, J., Ortega, J., Damas, M., Martín-Smith, P., & Gan, J. A new multi-objective wrapper method for feature selection - Accuracy and stability analysis for BCI. Neurocomputing, 333, 407-418. 2019. (Q1)

192. M. Jiménez-López, J. M. Machado-Cano, M. Rodríguez-Álvarez, M. Stephan, G. Giavitto, D. Berge, and J. Díaz "Optimized framegrabber for the Cherenkov telescope array," Journal of Astronomical Telescopes, Instruments, and Systems 5(1), 014001. 2019. (Q2)

193. N.R. Luque, F. Naveros, R.R. Carrillo, E. Ros & A. Arleo. Spike burst-pause dynamics of Purkinje cells regulate sensorimotor adaptation. PLoS Comput. Biol. 2019. (Q1)

194. García-Sánchez, P., Ortega, J., González, J., Castillo, P., Guervós, J.J. Distributed multi-objective evolutionary optimization using island-based selective operator application. Appl. Soft Comput., 85. Num. 105757. 2019. (Q1)

195. M. Marín, F.J. Esteban, H. Ramírez-Rodrigo, E. Ros, M.J. Sáez-Lara. An integrative methodology based on protein-protein interaction networks for identification and functional annotation of disease-relevant genes applied to channelopathies. BMC Bioinformatics, 20:565. 2019. (Q1)

196. Galvez JM, Castillo D, Herrera LJ, Valenzuela O, Caba O, Prados JC, Ortuno FM, Rojas I. “Towards Improving Skin Cancer Diagnosis …” IEEE Journal of Biomedical and Health Informatics, 2019. (Q1)

197. Lopez-Jiménez, José; Gutiérrez-Rivas, Jose Luis; Marín-López, Emilio; Rodríguez-Álvarez, Manuel; Díaz, Javier. “Time as a Service Based on White Rabbit for Finance Applications”. IEEE Communications Magazine, 2020. (Q1)

198. F. Girela-López, J. López-Jiménez, M. Jiménez-López, R. Rodríguez, E. Ros and J. Díaz, "IEEE 1588 High Accuracy Default Profile: Applications and Challenges," in IEEE Access, vol. 8, pp. 45211-45220, 2020. (Q1).

199. Galindo, S. E., Toharia, P., Robles, O. D., Ros, E., Pastor, L., & Garrido, J. A. “Simulation, visualization and analysis tools for pattern recognition assessment with spiking neuronal networks”. Neurocomputing, 2020. (Q1)

200. Km3net Collaboration, Et Al.; Navas-Concha, S.; Diaz-Garcia, A.F. “gSeaGen: The KM3NeT GENIE-based code for neutrino telescopes”. Computer Physics Communications, 2020. (Q1).

201. León, J.; Escobar-Pérez, JJ; Ortiz-García, A; Ortega-Lopera, J; Martin-Smith, P; Q. Gan, J; González-Peñalver, J; Damas-Hermoso, M. “Deep learning for EEG-based Motor Imagery classification: accuracy-cost trade-off”. PLoS One, 2020. (Q2).

202. Soto-Hidalgo, JM; Sanchez-Fernandez, D; Chamorro-Martínez, J; Martínez-Jiménez, PM. “Color comparison in fuzzy color spaces”. Fuzzy Sets and Systems, 2020. (Q1)

203. Antares Collaboration, Et Al.; Navas-Concha, S; Diaz-Garcia, AF. “Combined search for neutrinos from dark matter self-annihilation in the Galactic Center with ANTARES and IceCube”. Physical Review D, 2020. (Q1).

204. Cama-pinto, D; Damas-Hermoso, M; Holgado-Terriza, JA; Arrabal-Campos, FM; Gómez-Mula, F; MARTINEZ-LAO, JA; Cama-Pinto, A. “Empirical Model of Radio Wave Propagation in the Presence of Vegetation inside Greenhouses Using Regularized Regressions”. Sensors, 2020. (Q1).

205. Herrera-Maldonado, LJ; Todero-peixoto, CJ; Baños-Legrán, O; Carceller, JM; Carrillo, F; Guillén-Perales, A. “Composition Classification of Ultra-High Energy Cosmic Rays”. Entropy, 2020. (Q2).

206. Guillén-Perales, A; Martínez, J; Carceller, JM; Herrera-Maldonado, LJ. “A comparative analysis of machine learning techniques for muon count in UHECR extensive air-showers”. Entropy, 2020. (Q2).

207. Antares Collaboration, Et Al.; Navas-Concha, S; Diaz-Garcia, AF. “Observation of the cosmic ray shadow of the Sun with the ANTARES neutrino telescope”. Physical Review D, 2020. (Q1).

208. Bailon, C; Goicoechea, C; Baños-Legrán, O; Damas-Hermoso, M; Pomares, H; Correa-Torres, Á; Sanabria-Lucena, D; Perakakis, P. “CoVidAffect, real-time monitoring of mood variations following the COVID-19 outbreak in Spain”. Scientific Data, 2020. (Q1).

209. Valenzuela-Cansino, O; Rojas-Ruiz, F; Rojas-Ruiz, I. “Computational Intelligence Methods for Time Series Analysis and Forecasting: Special Issue of IWANN 2017”. Neural Processing Letters, 2020. (Q2).

210. Valenzuela-Cansino, O; Rojas-Ruiz, F; Rojas-Ruiz, I. “Main findings and advances in bioinformatics and biomedical engineering- IWBBIO 2018”. BMC Bioinformatics, 2020. (Q1).

211. Vaquero, MÁ; Pérez, E; Lopez-Gordo, MA; Morillas-Gutiérrez, C. “Virtual Reality as a Portable Alternative to Chromotherapy Rooms for Stress Relief: A Preliminary Study”. Sensors, 2020. (Q1).

212. Molina-Molina, A.; Ruiz Malagón, EJ; Carrillo, F; Roche, LE; Damas-Hermoso, M; Baños-Legrán, O; García-Pinillos, F. “Validation of mDurance, A Wearable Surface Electromyography System for Muscle Activity Assessment”. Frontiers in Physiology, 2020. (Q1).

213. Ye, J; Ogrady, M; Baños-Legrán, O. “Sensor Technology for Smart Homes”. Sensors, 2020. (Q1).

214. Sanchez-garrido, J; Ros-Vidal, E.; Díaz-Alonso, AJ. “Digital Electrical Substation Communications based on Deterministic Time-Sensitive Networking over Ethernet”. IEEE Access, 2020. (Q1).

215. Jimenez-lopez, M; López, J; Rodriguez-Gomez, R; Ros-Vidal, E; Díaz-Alonso, AJ. “10 Gigabit White Rabbit: sub-nanosecond timing and data distribution”. IEEE Access, 2020. (Q1).

216. Girela, FJ; López, J; Jimenez-lopez, M; Rodriguez-Gomez, R; Ros-Vidal, E; Díaz-Alonso, AJ. “IEEE 1588 High Accuracy Default Profile: Applications and Challenges”. IEEE Access, 2020. (Q1).

217. Lopez-Gordo, MA; Kohlmorgen, N.; Morillas-Gutiérrez, CA; Pelayo-Valle, FJ. “Performance prediction at single-action level to a first-person shooter video game”. Virtual Reality, 2020. (Q1).

218. Isern, J; Barranco, F; Deniz, D; Lesonen, J; Hannuksela, J; Carrillo-Sanchez, R. “Reconfigurable cyber-physical system for critical infrastructure protection in smart cities via smart video-surveillance”. Pattern Recognition Letters, 2020. (Q2).

219. Km3net Collaboration, Et Al.; Navas-Concha, S; Diaz-Garcia, AF. “The Control Unit of the KM3NeT Data Acquisition System”. Computer Physics Communications, 2020. (Q1).

220. Antares Collaboration, Et Al.; Navas-Concha, S; Diaz-Garcia, AF. “Search for neutrino counterparts of gravitational-wave events detected by LIGO and Virgo during run O2 with the ANTARES telescope”. European Physical Journal C. Particles and Fields, 2020. (Q1)

221. Ortiz-García, A; Martínez-Murcia, FJ; Luque, JL; Giménez, A; Morales-ortega, R; Ortega-Lopera, J. “Dyslexia diagnosis by EEG temporal and spectral descriptors: an anomaly detection approach”. International Journal of Neural Systems, 2020. (Q1)

222. Km3net Collaboration, Et Al.; Navas-Concha, S; Diaz-Garcia, AF. “Search for dark matter towards the Galactic Centre with 11 years of ANTARES data”. Physics Letters. Section B: Nuclear, Elementary Particle and High-Energy Physics, 2020. (Q1).

223. López, J; Gutiérrez-Rivas, JL; Rodriguez-Alvarez, M; Díaz-Alonso, AJ. “TIME AS A SERVICE BASED ON WHITE RABBIT FOR FINANCE APPLICATIONS”. IEEE Communications Magazine, 2020. (Q1).

224. Fernández-Ares, AJ; García-Sánchez, P; García-Arenas, MI; Mora-García, AM; Castillo-Valdivieso, PA. “Detection and Analysis of Anomalies in People Density and Mobility Through Wireless Smartphone Tracking”. IEEE Access, 2020. (Q1).

225. Antares-collaboration, Et Al.; Navas-Concha, S; Diaz-Garcia, AF. “ANTARES and IceCube Combined Search for Neutrino Point-like and Extended Sources in the Southern Sky”. The Astrophysical Journal, 2020. (Q1).

226. Romero, A; González-Peñalver, J; Deen, MJ; Jimenez-Tejada, JA. “Versatile model for the contact region of organic thin-film transistors”. Organic electronics, 2020. (Q2).

227. Garcia-Puntonet, C. et al. “Granger Causality-based Information Fusion Applied to Electrical Measurements from Power Transformers”. Information Fusion, 2020. (Q1).

228. Km3net Collaboration, Et Al.; Navas-Concha, S; Diaz-Garcia, AF. “Dependence of atmospheric muon flux on seawater depth measured with the first KM3NeT detection units“. European Physical Journal C. Particles and Fields, 2020. (Q1)

229. González-Redondo, Á.; Naveros, F.; Ros, E.; Garrido, JA. “A Basal Ganglia Computational Model to Explain the Paradoxical Sensorial Improvement in the Presence of Huntington’s Disease”. International Journal of Neural Systems, 30(10), 2020. (Q1).

230. Marín, M.; Sáez-Lara, MJ; Ros, E.; Garrido, JA. “Optimization of Efficient Neuron Models With Realistic Firing Dynamics. The Case of the Cerebellar Granule Cell”. Frontiers in Cellular Neuroscience, 14, 2020. (Q2).

231. F. Naveros, NR Luque, E. Ros, A. Arleo. "VOR Adaptation on a Humanoid iCub Robot using a Spiking Cerebellar Model.", IEEE T Cybernetics, 50(11) pp 4744-57, 2020. (Q1)

232. J. Sanchez-Garrido, A. Jurado, M. Jiménez-López, A. Balzer, H. Prokoph, M. Stephan, D. Berge, M. Rodríguez, J. Díaz, "A White Rabbit-synchronized accurate time-stamping solution for the small-sized cameras of the Cherenkov Telescope Array.," in IEEE Transactions on Instrumentation and Measurement, 2020 (Q1).

233. Moreno S., et al. “Attenuating treatment-related toxicity in women recently diagnosed with breast cancer via a tailored physical exercise program: Protocol of the ATOPE trial”. Physical Therapy, 2021. (Q1).

234. Romero A., Jimenez-Tejada JA., González-Peñalver J., Deen M.JK. “Unified Electrical Model for the Contact Regions of Staggered Thin Film Transistors”. Organic Electronics vol. 92, 2021 (Q2).

235. Antares Collaboration, Et Al.; Navas-Concha, S.; Diaz-Garcia, A.F. ”Antares Upper Limits on the Multi-Tev Neutrino Emission from the Grbs Detected by Iacts”. Journal of Cosmology and Astroparticle Physics, 2021 (Q1).

236. Km3Net Collaboration, Et Al.; Navas-Concha, S.; Diaz-Garcia, A.F. ”Sensitivity to Light Sterile Neutrino Mixing Parameters with Km3Net/Orca”. Journal of High Energy Physics, 2021 (Q1).

237. Antares Collaboration, Et Al.; Navas-Concha, S.; Diaz-Garcia, A.F. ”Search for Neutrinos from the Tidal Disruption Events At2019Dsg and At2019Fdr with the Antares Telescope”. Astrophysical Journal, 2021 (Q1).

238. Antares Collaboration, Et Al.; Navas-Concha, S.; Diaz-Garcia, A.F. ”Antares Search for Point Sources of Neutrinos Using Astrophysical Catalogs: a Likelihood Analysis”. Astrophysical Journal, 2021 (Q1).

239. Km3Net Collaboration, Et Al.; Navas-Concha, S.; Diaz-Garcia, A.F. ”The Km3Net Potential for the next Core-Collapse Supernova Observation with Neutrinos”. European Physical Journal C. Particles and Fields vol. 81 num. 445, 2021 (Q1).

240. Barranco F., Fermuller C., Aloimonos Y., Ros-Vidal E. “Joint Direct Estimation of 3D Geometry and 3D Motion Using Spatio Temporal Gradients”. Pattern Recognition vol. 113 num. 107759, 2021 (Q1).

241. Pérez E., Lopez-Gordo M.A., Morillas-Gutiérrez C.A., Vaquero M.A., Pelayo-Valle F.J. “A Review of Automated Techniques for Assisting the Early Detection of Alzheimer’s Disease with a Focus on Eeg”. Journal of Alzheimers Disease vol. 80, 2021 (Q2).

242. Pérez E., Lopez-Gordo M.A., Morillas-Gutiérrez C.A., “Eeg-Based Multi-Level Stress Classification with and Without Smoothing Filter”. Biomedical Signal Processing and Control vol. 69, 2021 (Q2).

243. Gorriz-Saez J.M., et Al., Garcia-Puntonet, C. ”Statistical Agnostic Mapping: a Framework in Neuroimaging Based on Concentration Inequalities”. Information Fusion vol. 66, 2021 (Q1).

244. Pérez E., Vaquero M.A., Lopez-Gordo M.A., Morillas-Gutiérrez C.A., “Quantitative Assessment of Stress Through Eeg During a Virtual Reality Stress-Relax Session”. Frontiers in Computational Neuroscience vol. 15, 2021 (Q2).

245. Vaquero M.A., Pérez E., Lopez-Gordo M.A., Morillas-Gutiérrez C.A., “Virtual Reality Customized 360-Degree Experiences for Stress Relief”. Sensors vol. 21, 2021 (Q2).

246. Aquino D.A., Ortiz-García A., Ortega-Lopera J., León J., Formoso M.A., Q John, Escobar-Pérez J.J. “Optimization of Deep Architectures for Eeg Signal Classification: An Automl Approach Using Evolutionary Algorithms”. Sensors vol. 21, 2021 (Q2).

247. Savran-Kiziltepe R., Q John, Escobar-Pérez J.J. “A Novel Keyframe Extraction Method for Video Classification Using Deep Neural Networks”. Neural Computing and Applications, 2021 (Q1).

248. González-Peñalver J., Ortega-Lopera J., Escobar-Pérez J.J, Damas-Hermoso M. “González-Peñalver, Jesús / Ortega-Lopera, Julio / Escobar-Pérez, Juan José / Damas-Hermoso, Miguel”. Neurocomputing vol. 463, 2021 (Q1).

249. Baños-Legrán O., Calatroni A., Damas-Hermoso M., Pomares H., Roggen D., Rojas-Ruiz I., Villalonga C. “Opportunistic Activity Recognition in Iot Sensor Ecosystems Via Multimodal Transfer Learning”. Neural Processing Letters, 2021 (Q2).

250. Antares Collaboration, Et Al.; Navas-Concha, S.; Diaz-Garcia, A.F. “Measurement of the atmospheric nu_e and nu_mu energy spectra with the ANTARES neutrino telescope”. Physics Letters. Section B: Nuclear, Elementary Particle and High-Energy Physics, 2021. (Q1).

251. Km3n3t Collaboration, Et Al.; Navas-Concha, S.; Diaz-Garcia, A.F. “Architecture and performance of the KM3NeT front-end firmware”. Journal of Astronomical Telescopes, Instruments, and Systems, 2021. (Q2).

252. Antares Collaboration, Et Al.; Navas-Concha, S.; Diaz-Garcia, A.F. ”Monte Carlo simulations for the ANTARES underwater neutrino telescope”. Journal of Cosmology and Astroparticle Physics, 2021 (Q1).

253. Gutierrez, L.; Rabbani, K.; Ajayi, O.; Kahsay, S.; Rafferty, J.; Castro, L.; Baños-Legrán, O. “Internet of Things for Mental Health: Open Issues in Data Acquisition, Self-Organization, Service Level Agreement, and Identity Management”. International Journal of Environmental Research and Public Health, 2021 (Q2).

254. Antares Collaboration, Et Al.; Navas-Concha, S.; Diaz-Garcia, A.F. “Constraining the contribution of Gamma-Ray Bursts to the high-energy diffuse neutrino flux with 10 yr of ANTARES data”. Monthly Notices of the Royal Astronomical Society, 2021 (Q1).

255. Marín M., C. Cruz N., Martínez-Ortigosa E., Saez-Lara M.J., Garrido J.A., R-Carrillo R. “On the Use of a Multimodal Optimizer for Fitting Neuron Models. Application to the Cerebellar Granule Cell”. Frontiers in Neuroinformatics, 2021 (Q1).

256. C. Cruz N., Marín M., López-Redondo J., Martínez-Ortigosa E., Martínez-Ortigosa P. “A Comparative Study of Stochastic Optimizers for Fitting Neuron Models. Application to the Cerebellar Granule Cell”. Informatica, 2021 (Q1).

257. I. Abadía, F. Naveros, JA. Garrido, E. Ros, N.R. Luque. "On robot compliance. A cerebellar control approach". IEEE T Cybernetics, (in press) (Q1).

5. PhD Dissertations presented (since 2006)

In what follows, the 88 PhD dissertations presented and/or advised by members of the group are listed:

1. Title: Optimización Multi-Objetivo de Arquitecturas de Aprendizaje Profundo para el Procesamiento de Señales EEG en Plataformas de Cómputo Heterogéneas
   Author: Diego Ariel Aquino Britez
   Department: Arquitectura y Tecnología de Computadores (UGR)
   Presentation date: 2022-05-27
   Advisor(s): Andrés Ortiz García, Juan José Escobar Pérez

2. Title: ATOPE+: Supporting Personalized Exercise Interventions in Breast Cancer Care Using Mobile Technologies and Machine Learning
   Author: Salvador Moreno Gutiérrez
   Department: Arquitectura y Tecnología de Computadores (UGR)
   Presentation date: 2022-05-06
   Advisor(s): Miguel Damas Hermoso, Oresti Baños Legrán

3. Title: Técnicas Bio-Inspiradas para la Generación Procedural de Historias en Literatura y Videojuegos de Mundo Abierto
   Author: Rubén Héctor García Ortega
   Department: Arquitectura y Tecnología de Computadores (UGR)
   Presentation date: 2022-05-04

Advisor(s): Juan Julián Merelo Guervós, Pablo García Sánchez

4. Title: Uncovering the Relationship Between Mood and Sport Performance Using Context-Aware Mobile Sensing
   Author: Carlos Bailón Romacho
   Department: Arquitectura y Tecnología de Computadores (UGR)
   Presentation date: 2022-02-23
   Advisor(s): Miguel Damas Hermoso, Oresti Baños Legrán

5. Title: New Approaches to Improve the Performance of Machine Learning and Deep Learning Algorithms in Solving Real-World Problems: Companies' Financial Failure Forecasting
   Author: Huthaifa Aljawazneh
   Department: Arquitectura y Tecnología de Computadores (UGR)
   Presentation date: 2021-12-20
   Advisor(s): Pedro Ángel Castillo Valdivieso, Antonio Miguel Mora García

6. Title: Battery Management of Rechargeable Zinc Air Batteries
   Author: Andre Loechte
   Department: Arquitectura y Tecnología de Computadores (UGR)
   Presentation date: 2021-11-26
   Advisor(s): Ignacio Rojas Ruiz, Peter Glösekötter

7. Title: Sistemas de Sellado Temporal en Redes Sincronizadas de Alta Precisión
   Author: Francisco Jesús Girela López
   Department: Arquitectura y Tecnología de Computadores (UGR)
   Presentation date: 2021-06-30
   Advisor(s): Antonio Javier Díaz Alonso

8. Title: Time Sensitive Networks Based on Ultra-Accurate Synchronization Mechanisms
   Author: Jorge Sánchez Garrido
   Department: Arquitectura y Tecnología de Computadores (UGR)
   Presentation date: 2021-01-27
   Advisor(s): Eduardo Ros Vidal, Antonio Javier Díaz Alonso

9. Title: Mecanismos de Seguridad para Big Data Basados en Circuitos Criptográficos
   Author: Ilia Blokhin
   Department: Arquitectura y Tecnología de Computadores (UGR)
   Presentation date: 2020-09-09
   Advisor(s): Antonio Francisco Díaz García, Julio Ortega Lopera

10. Title: Energy-efficient Parallel and Distributed Multi-objective Feature Selection on Heterogeneous Architectures
    Author: Juan José Escobar Pérez
    Department: Arquitectura y Tecnología de Computadores (UGR)
    Presentation date: 2020-07-10
    Advisor(s): Miguel Damas Hermoso, Jesús González Peñalver
    International mention

11. Title: Integration of heterogeneous gene expression sources in human cancer pathologies, employing high performance computing and machine learning techniques
    Author: Daniel Castillo Secilla
    Department: Arquitectura y Tecnología de Computadores (UGR)
    Presentation date: 2020-03-2
    Advisor(s): Ignacio Rojas Ruiz, Luis Javier Herrera Maldonado
    International mention

12. Title: Developing advanced computing techniques in bioinformatics and biomedical engineering
    Author: Juan Manuel Gálvez Gómez
    Department: Arquitectura y Tecnología de Computadores (UGR)

Presentation date: 2019-06-26
Advisor(s): Ignacio Rojas Ruiz, Francisco Manuel Ortuño Guzmán
International mention

13. Title: Aceleración y Optimización del Consumo Energético de Clasificadores en Cascada para la Detección de Rostros sobre Arquitecturas Asimétricas
Author: Jesús Alberto Corpas Novo
Department: Arquitectura y Tecnología de Computadores (UGR)
Presentation date: 2019-07-15
Advisor(s): Manuel Rodríguez Álvarez, Guillermo Botella Juan

14. Title: Extracción evolutiva de parámetros en modelos compactos de transistores orgánicos de lámina delgada
Author: Adrián Romero Cáceres
Department: Arquitectura y Tecnología de Computadores (UGR), Electrónica y Tecnología de Computadores (UGR)
Presentation date: 2019-11-11
Advisor(s): Jesús González Peñalver, Juan Antonio Jiménez Tejada

15. Title: Desarrollo de Una Plataforma de Seguridad Preventiva (Hw/Sw) para Valorar la Aptitud Psicofísica del Operador en Tiempo Real e Intentar Reducir la Accidentalidad
Author: José Miguel Morales Fernández
Department: Arquitectura y Tecnología de Computadores (UGR)
Presentation date: 2019-12-13
Advisor(s): Samuel Francisco Romero García, Leandro Luigi Di Stasi

16. Title: Distributed control systems based on high accurate timing synchronization
Author: Miguel Jiménez López
Department: Arquitectura y Tecnología de Computadores (UGR),
Presentation date: 2019-02-11
Advisor(s): Antonio Javier Díaz Alonso

17. Title: Mobile Brain-Computer Interface for the Cloud-Computing of Neurophysiological Responses
Author: Jesús Minguillón Campos
Department: Arquitectura y Tecnología de Computadores (UGR),
Presentation date: 2018-11-22
Advisor(s): Francisco José Pelayo Valle, Miguel Ángel López Gordo

18. Title: Dependable systems over synchronous networks
Author: José Luis Gutiérrez Rivas
Department: Arquitectura y Tecnología de Computadores (UGR),
Presentation date: 2018-12-04
Advisor(s): Antonio Javier Díaz Alonso, Eduardo Ros Vidal
International mention

19. Title: Desarrollo de Sistemas Software Industriales Dirigido por Modelos: Aplicación a OPC UA y IEC 61131-3
Author: José Miguel Gutiérrez Guerrero
Department: Lenguajes y Sistemas Informáticos (UGR) / Arquitectura y Tecnología de Computadores (UGR),
Presentation date: 2018-11-16
Advisor(s): Juan Antonio Holgado Terriza, Miguel Damas Hermoso

20. Title: Futuros sistemas embebidos en SmartGrid. Nuevas aportaciones en unidades terminales remotas
Author: Francisco Javier Ramos Peñuela
Department: Arquitectura y Tecnología de Computadores (UGR),
Presentation date: 2018-10-30
Advisor(s): Miguel Damas Hermoso, Héctor Emilio Pomares Cintas

21. Title: Simulation models and tools of the early stages of the visual system
    Author: Pablo Martínez Cañada
    Department: Arquitectura y Tecnología de Computadores (UGR),
    Presentation date: 2018-07-20
    Advisor(s): Francisco José Pelayo Valle, Christian Agustín Morillas Gutiérrez
    International mention

22. Title: Extending the Concepts of Type-2 Fuzzy Logic and Systems
    Author: Gonzalo Ruiz García
    Department: Arquitectura y Tecnología de Computadores (UGR),
    Presentation date: 2017-09-14
    Advisor(s): Ignacio Rojas Ruiz, Héctor Emilio Pomares Cintas
    International mention

23. Title: Simulation of nervous centres in closed-loop of perception-action
    Author: Francisco Naveros Arrabal
    Department: Arquitectura y Tecnología de Computadores (UGR),
    Presentation date: 2017-06-06
    Advisor(s): Eduardo Ros Vidal, Niceto Rafael Luque Sola, Jesús Alberto Garrido Alcázar
    International mention

24. Title: Ontology Engineering and Reasoning to Support Real World Human Behavior Recognition
    Author: Claudia Villalonga Palliser
    Department: Arquitectura y Tecnología de Computadores (UGR)
    Presentation date: 2016-12-16
    Advisor(s): Héctor Emilio Pomares Cintas, Oresti Baños Legrán
    International mention

25. Title: Análisis y Optimización de la Interfaz de Comunicación en Sistemas de Ficheros en Red
    Author: Raúl Hernández Palacios
    Department: Arquitectura y Tecnología de Computadores (UGR)
    Presentation date: 2016-07-18
    Advisor(s): Antonio Francisco Díaz García, Mancia Anguita López

26. Title: High-Performance Scientific Computing on FPGA aboard the Solar Orbiter PHI Instrument
    Author: Juan Pedro Cobos Carrascosa
    Department: Arquitectura y Tecnología de Computadores (UGR) / Instituto Andaluz de Astrofísica (CSIC)
    Presentation date: 2016-02-05
    Advisor(s): Antonio C. López Jiménez and Christian A. Morillas Gutiérrez

27. Title: Portabilidad de Aplicaciones en Astrofísica a la Infraestructura de Computación Grid
    Author: José Ramón Rodón Ortiz
    Department: Arquitectura y Tecnología de Computadores (UGR),
    Presentation date: 2016-01-15
    Advisor(s): Juan Carlos Suárez Yanes, Julio Ortega Lopera

28. Title: Sistemas de Detección de Intrusos con Mapas Authorganizativos Probabilísticos y Optimización Multiobjetivo
    Author: Emiro de la Hoz Franco
    Department: Arquitectura y Tecnología de Computadores (UGR),
    Presentation date: 2016-02-09
    Advisor(s): Andrés Ortiz García, Julio Ortega Lopera

29. Title: DARP: A new routing algorithm for large communication infrastructures
    Author: Francisco José Estévez Ortiz
    Department: Arquitectura y Tecnología de Computadores (UGR),
    Presentation date: 2016-06-20

Advisor(s): Jesús González Peñalver, Peter Glösekötter

30. Title: Mapas Auto-organizativos probabilísticos y análisis en componentes de conexiones para la detección de anomalías en redes de computadores
    Author: Eduardo Miguel de la Hoz Correa
    Department: Arquitectura y Tecnología de Computadores (UGR),
    Presentation date: 2016-06-23
    Advisor(s): Andrés Ortiz García, Julio Ortega Lopera

31. Title: Implementation of models for image processing applications with real-time constraints
    Author: Pablo Guzmán Sánchez
    Department: Arquitectura y Tecnología de Computadores (UGR),
    Presentation date: 2015-04-14
    Advisor(s): Eduardo Ros Vidal, Antonio Javier Díaz Alonso
    International mention

32. Title: Optimización de modelos hidrodinámicos 3D del transporte y mezcla aplicados al conocimiento y predicción de masas de agua continental
    Author: Mario César Acosta Cobos
    Department: Arquitectura y Tecnología de Computadores (UGR),
    Presentation date: 2015-05-28
    Advisor(s): Francisco José Rueda Valdivia, Mancia Anguita López
    International mention

33. Title: Desarrollo de nuevos índices de blancura: aplicaciones en biomateriales dentales
    Author: María José Rivas Bravo
    Department: Departamento de Óptica (UGR) / Arquitectura y Tecnología de Computadores (UGR)
    Presentation date: 2014-07-25
    Advisor(s): Luis Javier Herrera Maldonado, María del Mar Pérez Gómez

34. Title: Development of Advanced Computational Systems for Multiple Sequence Alignments by using Heterogeneous Biological Information
    Author: Francisco Manuel Ortuño Guzmán
    Department: Arquitectura y Tecnología de Computadores (UGR),
    Presentation date: 2014-07-28
    Advisor(s): Ignacio Rojas Ruiz
    International mention

35. Title: Sistemas de visión para el seguimiento de poses 3-D de objetos en tiempo real
    Author: Leonardo Rubio Navarro
    Department: Arquitectura y Tecnología de Computadores (UGR),
    Presentation date: 2014-03-24
    Advisor(s): Mancia Anguita López, Antonio Javier Díaz Alonso, Eduardo Ros Vidal
    International mention

36. Title: Robust Expert Systems for more Flexible Real-World Activity Recognition
    Author: Oresti Baños Legrán
    Department: Arquitectura y Tecnología de Computadores (UGR),
    Presentation date: 2014-04-25
    Advisor(s): Miguel Damas Hermoso, Héctor Emilio Pomares Cintas, Ignacio Rojas Ruiz
    International mention

37. Title: Service Oriented Architecture For Adaptive Evolutionary Algorithms: Implementation and Applications
    Author: Pablo García Sánchez
    Department: Arquitectura y Tecnología de Computadores (UGR),
    Presentation date: 2014-06-16
    Advisor(s): Juan Julián Merelo Guervós, Jesús González Peñalver, Alberto Prieto Espinosa
    International mention

38. Title: Signal processing of magnetic and inertial sensor's signals applied to human body motion monitoring
    Author: Alberto Olivares Vicente
    Department: Arquitectura y Tecnología de Computadores (UGR) / Teoría de la Señal, Telemática y Comunicaciones (UGR)
    Presentation date: 2013-01-30
    Advisor(s): Juan Manuel Górriz Sáez, Gonzalo Olivares Ruiz, Javier Ramírez Pérez de Inestrosa
    International mention

39. Title: Esquemas de control robótico bio-inspirados utilizando estructuras neuronales biológicamente plausibles
    Author: Niceto Rafael Luque Sola
    Department: Arquitectura y Tecnología de Computadores (UGR),
    Presentation date: 2013-05-16
    Advisor(s): Eduardo Ros Vidal, Richard R. Carrillo Sánchez
    International mention

40. Title: Estado emocional y funcionalidad visual de personas con Retinosis Pigmentaria. Repercusión en el entorno familiar
    Authora: Helena Chacón López
    Department: Psicología Evolutiva y de la Educación (UGR),
    Presentation date: 2013-05-27
    Advisor(s): Mª Dolores López Justicia, Francisco J. Pelayo Valle

41. Title: Modelos de visión para tareas de videovigilancia en sistemas empotrados
    Author: Enrique Jaime Fernández Sánchez
    Department: Arquitectura y Tecnología de Computadores (UGR),
    Presentation date: 2013-06-28
    Advisor(s): Eduardo Ros Vidal, Antonio Javier Díaz Alonso
    International mention

42. Title: Applying Real-Time Calculus and HDL Simulation for Network Interfaces Evaluation.
    Author: Godofredo Ramón Garay Álvarez
    Department: Arquitectura y Tecnología de Computadores (UGR),
    Presentation date: 2012-06-01
    Advisor(s): Julio Ortega Lopera, Antonio Francisco Díaz García, Luis Corrales Barrios

43. Title: Estudio estadístico de algoritmos de control inteligente en tiempo real. Aplicación en una plataforma hardware de control de temperatura.
    Author: Rafik Lasri
    Department: Arquitectura y Tecnología de Computadores (UGR),
    Presentation date: 2012-05-04
    Advisor(s): Ignacio Rojas Ruiz, Héctor Emilio Pomares Cintas, Olga Valenzuela Cansinos

44. Title: Análisis Estadístico de distintas técnicas de Inteligencia Artificial en detección de intrusos.
    Author: Hind Tribak
    Department: Arquitectura y Tecnología de Computadores (UGR),
    Presentation date: 2012-02-06
    Advisor(s): Ignacio Rojas Ruiz, Héctor Emilio Pomares Cintas, Olga Valenzuela Cansinos

45. Title: Incremento de la localidad de datos en sistemas de ficheros
    Author: Hugo Eduardo Camacho Cruz
    Department: Arquitectura y Tecnología de Computadores (UGR),
    Presentation date: 2012-07-18
    Advisor(s): Mancia Anguita López, Antonio Francisco Díaz García

46. Title: Bio-inspired motor learning models for robot control.
    Author: Silvia Tolu

Department: Arquitectura y Tecnología de Computadores (UGR),
Presentation date: 2012-03-20
Advisor(s): Eduardo Ros Vidal, Jo-anne Ting , Antonio Cañas Vargas
European mention

47. Title: New Methodologies for the Design of Evolving Fuzzy Systems for Online Intelligent Control
Author: Ana Belén Cara Carmona
Department: Arquitectura y Tecnología de Computadores (UGR),
Presentation date: 2012-03-27
Advisor(s): Ignacio Rojas Ruiz, Héctor Emilio Pomares Cintas, Miguel Damas Hermoso
European mention

48. Title: A parallel multi-objective optimization procedure for protein structure prediction
Author: José Carlos Calvo Tudela
Department: Arquitectura y Tecnología de Computadores (UGR),
Presentation date: 2012-10-15
Advisor(s): Julio Ortega Lopera, Mancia Anguita López

49. Title: Specific-purpose processing architectures for dynamic artificial vision systems
Author: Francisco Barranco Expósito
Department: Arquitectura y Tecnología de Computadores (UGR),
Presentation date: 2012-10-09
Advisor(s): Eduardo Ros Vidal, Antonio Javier Díaz Alonso, María Begoña del Pino Prieto
International mention

50. Title: Sistema para Separación de Señales en Tiempo Real basado en DSP
Author: Juan Carlos Moreno Comba
Department: Arquitectura y Tecnología de Computadores (UGR),
Presentation date: 2012-10-26
Advisor(s): Carlos García Puntonet, Antonio Francisco Díaz García

51. Title: Arquitectura eficiente de condensación de información visual dirigida por procesos atencionales
Author: María Sara Granados Cabeza
Department: Arquitectura y Tecnología de Computadores (UGR),
Presentation date: 2012-12-11
Advisor(s): Antonio Javier Díaz Alonso, María Sonia Mota Fernández, Alberto Prieto Espinosa
International mention

52. Title: Simulation of biological neuronal structures. Design and functional study of the cerebellum
Author: Jesus Alberto Garrido Alcázar
Department: Arquitectura y Tecnología de Computadores (UGR),
Presentation date: 2011-11-17
Advisor(s): Eduardo Ros Vidal, Richard R. Carrillo Sánchez

53. Title: Intelligent systems for function approximation and the integration of heterogeneous biological data
Author: Javier Pérez Florido
Department: Arquitectura y Tecnología de Computadores (UGR),
Presentation date: 2011-10-10
Advisor(s): Ignacio Rojas Ruiz, Héctor Emilio Pomares Cintas
European mention

54. Title: Fusion and Regularisation of Image Information in Variational Correspondence Methods
Author: Jarno Ralli
Department: Arquitectura y Tecnología de Computadores (UGR),
Presentation date: 2011-12-19
Advisor(s): Eduardo Ros Vidal, Antonio Javier Díaz Alonso
European mention

55. Title: Nuevos métodos de predicción de Interacción de Proteína-Proteína utilizando Sistemas Inteligentes en Bases de Datos de Proteómica
    Author: José Miguel Urquiza Ortiz
    Department: Arquitectura y Tecnología de Computadores (UGR),
    Presentation date: 2011-10-14
    Advisor(s): Ignacio Rojas Ruiz, Héctor Emilio Pomares Cintas, Luis Javier Herrera Maldonado
    European mention

56. Title: Análisis, evaluación de prestaciones y mejora de interfaces de red mediante modelos HDL
    Author: Haider, Waseem M.
    Department: Arquitectura y Tecnología de Computadores (UGR),
    Presentation date: 2011-10-27
    Advisor(s): Antonio Díaz García, Julio Ortega Lopera

57. Title: Extracción Eficiente de la Estructura de Escenas Naturales
    Author: José Manuel Palomares Muñoz
    Department: Arquitectura y Tecnología de Computadores (UGR),
    Presentation date: 2011-02-25
    Advisor(s): Jesús González Peñalver, Eduardo Ros Vidal

58. Title: Blanqueamiento dental: Estudio clínico para el desarrollo de métodos estadísticos e inteligentes para la predicción del cambio cromático
    Author: Janiley Santana Díaz
    Department: Departamento de Estomatología (UGR) / Arquitectura y Tecnología de Computadores (UGR)
    Presentation date: 2010-02-05
    Advisor(s): Rosa María Pulgar Encinas, María del Mar Pérez Gómez, Luis Javier Herrera Maldonado

59. Title: Modelos Avanzados de Inteligencia Computacional para Aproximación Funcional y Predicción de Series Temporales en Arquitecturas Paralelas
    Author: Ginés Rubio Flores
    Department: Arquitectura y Tecnología de Computadores (UGR),
    Presentation date: 2010-07-05
    Advisor(s): Héctor Emilio Pomares Cintas, Ignacio Rojas Ruiz, Alberto Guillén Perales

60. Title: Análisis en Componentes de Imágenes Funcionales para la Ayuda al Diagnóstico de la Enfermedad del Alzheimer
    Author: Ignacio Álvarez Illán
    Department: Arquitectura y Tecnología de Computadores (UGR),
    Presentation date: 2010-07-10
    Advisor(s): Juan Manuel Górriz Sáez, Javier Ramírez Pérez de Inestrosa, Carlos García Puntonet

61. Title: Pyramidal Architecture For Stereo Vision and Motion Estimation In Real-Time Fpga-Based devices
    Author: Matteo Tomasi
    Department: Arquitectura y Tecnología de Computadores (UGR),
    Presentation date: 2010-06-15
    Advisor(s): Eduardo Ros Vidal, Antonio Javier Díaz Alonso

62. Title: Procesamiento de Registros Oculares Sacádicos en Pacientes de Ataxia Sca2. Aplicación del Análisis de Componentes Independientes
    Author: Rodolfo Valentín García Bermúdez
    Department: Arquitectura y Tecnología de Computadores (UGR),
    Presentation date: 2010-12-16
    Advisor(s): Fernando José Rojas Ruiz, Jesús González Peñalver, Luis Velázquez Pérez

63. Title: Improving Communications By Using Network Processors
    Author: Pablo Guillermo Cascón Katchadourian

Department: Arquitectura y Tecnología de Computadores (UGR),
Presentation date: 2010-02-17
Advisor(s): Julio Ortega Lopera, Antonio F Díaz
European mention

64. Title: Arquitectura Basada en Tecnología Fpga para la Estimación y Análisis de Información de Flujo Óptico en Tiempo Real
Author: Mauricio de Jesús Vanegas Hernández
Department: Arquitectura y Tecnología de Computadores (UGR),
Presentation date: 2010-07-19
Advisor(s): Eduardo Ros Vidal, Antonio Javier Díaz Alonso

65. Title: Optimización multiobjetivo dinámica y procesamiento paralelo
Author: Mario Cámara Sola
Department: Arquitectura y Tecnología de Computadores (UGR),
Presentation date: 2010-06-22
Advisor(s): Julio Ortega Lopera, Francisco Jesús del Toro Negro
European mention

66. Title: Desarrollo de un modelo bioinformático como herramienta predictiva del comportamiento y trazabilidad de células madre para la diferenciación miocárdica en base a factores de inducción exógenos
Author: Pablo Juan Álvarez Aránega
Department: Arquitectura y Tecnología de Computadores (UGR) / Anatomía y Embriología Humana (UGR)
Presentation date: 2009-07-24
Advisor(s): Alberto Prieto Espinosa, Fernando Rodríguez Serrano, José Carlos Prados

67. Title: Simulación Eficiente de Estructuras Neuronales Basadas en el Sistema Nervioso
Author: Richard R. Carrillo Sánchez
Department: Arquitectura y Tecnología de Computadores (UGR),
Presentation date: 2009-07-20
Advisor(s): Eduardo Ros Vidal, Eva Martínez Ortigosa, Francisco José Pelayo Valle
European mention

68. Title: Nuevos algoritmos de detección de señales basados en un modelo de distribución gaussiana conjunta
Author: Óscar Pernía Fernández
Department: Arquitectura y Tecnología de Computadores (UGR) / Teoría de la Señal, Telemática y Comunicaciones (UGR) / Ingeniería Informática (Universidad de Cádiz)
Presentation date: 2009
Advisor(s): Juan Manuel Górriz Sáez, Ignacio José Turias Domínguez, Carlos García Puntonet

69. Title: Interfaz Bci de altas Prestaciones Basada en la Detección y Procesamiento de la Actividad Cerebral
Author: Miguel Ángel López Gordo
Department: Arquitectura y Tecnología de Computadores (UGR),
Presentation date: 2009-03-26
Advisor(s): Alberto Prieto Espinosa, Francisco José Pelayo Valle

70. Title: Alternativas de Externalización para la Interfaz de Red. Análisis y Optimización Mediante Simulación de Sistema Completo. (Doctorado con Mención Europea)
Author: Andrés Ortiz García
Department: Arquitectura y Tecnología de Computadores (UGR), Universidad de Málaga
Presentation date: 2008-11-11
Advisor(s): Julio Ortega Lopera, Alberto Prieto Espinosa
European mention

71. Title: Aproximación Funcional Mediante Redes de Funciones de Base Radial, Una alternativa para la Predicción en el Proceso de Reducción de Mineral de la Tecnología Caron de Producción de Níquel
    Author: Francisco Fernández Periche
    Department: Arquitectura y Tecnología de Computadores (UGR),
    Presentation date: 2008-01-25
    Advisor(s): Julio Ortega Lopera, Ignacio Rojas Ruiz

72. Title: Estudio Comparativo de la Técnica de Análisis de Componentes Independientes (ICA) Aplicado al Procesamiento Digital de Imágenes Con Ruido.
    Author: Salua Esther Nassabay Pardo
    Department: Arquitectura y Tecnología de Computadores (UGR),
    Presentation date: 2007-03-02
    Advisor(s): Carlos García Puntonet, Rubén Martín Clemente

73. Title: Diseño de Sistemas Inteligentes en Plataformas de Cómputo Paralelas
    Author: Alberto Guillén Perales
    Department: Arquitectura y Tecnología de Computadores (UGR),
    Presentation date: 2007-07-05
    Advisor(s): Ignacio Rojas Ruiz, Jesús González Peñalver, Héctor Emilio Pomares Cintas

74. Title: Sistemas Inteligentes Adaptativos para Aproximación y Predicción Utilizando Arquitecturas Avanzadas
    Author: Luis Javier Herrera Maldonado
    Department: Arquitectura y Tecnología de Computadores (UGR),
    Presentation date: 2007-07-06
    Advisor(s): Ignacio Rojas Ruiz, Héctor Emilio Pomares Cintas

75. Title: Arquitecturas para el Procesamiento de Sistemas Neuronales para el Control de Robots Bioinspirados
    Author: Rodrigo C. Agís Melero
    Department: Arquitectura y Tecnología de Computadores (UGR),
    Presentation date: 2007-10-08
    Advisor(s): Eduardo Ros Vidal, Francisco José Pelayo Valle, Eva Martínez Ortigosa

76. Title: Circuitos Bio-Inspirados para la Evaluación de Movimiento en Tiempo Real y Sus Aplicaciones
    Author: María Sonia Mota Fernández
    Department: Arquitectura y Tecnología de Computadores (UGR),
    Presentation date: 2007-03-09
    Advisor(s): Eduardo Ros Vidal, Francisco José Pelayo Valle

77. Title: Implementación en Hardware Reconfigurable de un Modelo de Flujo Óptico Robusto
    Author: Guillermo Botella Juan
    Department: Arquitectura y Tecnología de Computadores (UGR),
    Presentation date: 2007-07-13
    Advisor(s): Eduardo Ros Vidal, Manuel Rodríguez Álvarez, Antonio García Ríos

78. Title: Desarrollo y Evaluación de Ayudas Optoelectrónicas para Pacientes de Baja Visión
    Author: María Dolores Peláez Coca
    Department: Arquitectura y Tecnología de Computadores (UGR) / Universidad de Murcia
    Presentation date: 2007-07-16
    Advisor(s): Fernando Vargas Martín, Eduardo Ros Vidal

79. Title: Development Of a High Accuracy Analogue-To-Digital Converter System: Application In Data Logging Units For Formula-1 Vehicles
    Author: Carlos Castro Serrato
    Department: Arquitectura y Tecnología de Computadores (UGR) / Infineon Technologies Ag, Munich
    Presentation date: 2006-05-02
    Advisor(s): Ignacio Rojas Ruiz, Pedro Ángel Castillo Valdivieso, Alberto Prieto Espinosa

80. Title: Automatic Generation Of Bioinspired Vision Systems Using Reconfigurable Hardware
    Author: Antonio Martínez Álvarez
    Department: Arquitectura y Tecnología de Computadores (UGR),
    Presentation date: 2006-05-03
    Advisor(s): Francisco José Pelayo Valle, Leonardo Reyneri

81. Title: Hardware/Software Environment For Visual Prosthetics Research
    Author: Samuel Francisco Romero García
    Department: Arquitectura y Tecnología de Computadores (UGR),
    Presentation date: 2006-11-03
    Advisor(s): Francisco José Pelayo Valle, Eduardo Fernández Jover

82. Title: Study and Characterization With Scanning Probe Methods Of Employable Nano-Materials In New Architectures For Molecular Memories
    Author: Manuela Alba Bueno
    Department: Arquitectura y Tecnología de Computadores (UGR) / Infineon Technologies Ag, Munich
    Presentation date: 2006-05-05
    Advisor(s): Karl Goser , Ignacio Rojas Ruiz, Alberto Prieto Espinosa

83. Title: Desarrollo de Sistemas Inteligentes para Clasificación y Diagnóstico de Problemas en Medicina
    Author: Suhail Odeh
    Department: Arquitectura y Tecnología de Computadores (UGR),
    Presentation date: 2006-07-07
    Advisor(s): Eduardo Ros Vidal, Ignacio Rojas Ruiz

84. Title: Nuevos Avances en detección de Actividad de Voz Mediante Estadísticos de Alto Orden y Estrategias de Optimización
    Author: Juan Manuel Górriz Sáez
    Department: Arquitectura y Tecnología de Computadores (UGR) / Teoría de la Señal, Telemática y Comunicaciones (UGR),
    Presentation date: 2006-07-13
    Advisor(s): Carlos García Puntonet, Javier Ramírez Pérez de Inestrosa

85. Title: ICA Incompleto paralelo: Una Nueva Herramienta para el Análisis de Datos Fmri
    Author: Ingo Rudolf Keck
    Department: Arquitectura y Tecnología de Computadores (UGR),
    Presentation date: 2006-07-13
    Advisor(s): Carlos García Puntonet

86. Title: Aplicación de la Factorización Matricial al Análisis de Datos ExperimentAles Con Microarrays
    Author: Kurt Stadlthanner
    Department: Arquitectura y Tecnología de Computadores (UGR),
    Presentation date: 2006-07-14
    Advisor(s): Carlos García Puntonet

87. Title: Sistema de Visión Bio-Inspirado Multi-Modal. Arquitectura de Procesamiento de Movimiento y Visión Estéreo de altas Prestaciones.
    Author: Antonio Javier Díaz Alonso
    Department: Arquitectura y Tecnología de Computadores (UGR),
    Presentation date: 2006-07-21
    Advisor(s): Eduardo Ros Vidal, Alberto Prieto Espinosa

88. Title: Modelos y Herramientas para Sistemas de Rehabilitación Visual
    Author: Christian Agustín Morillas Gutiérrez
    Department: Arquitectura y Tecnología de Computadores (UGR),
    Presentation date: 2006-09-28
    Advisor(s): Francisco José Pelayo Valle, Alberto Prieto Espinosa

6. Patents and contracts:

The list of patents obtained by members of the group are provided in the link:
https://atc.ugr.es/investigacion/grupos/casip/patentes

In the link https://tic117.ugr.es/ it can be found more information related with the group CASIP.