

c v n CURRÍCULUM VÍTAE NORMALIZADO



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**Current professional situation****Employing entity:** Universidad de León**Type of entity:** University**Department:** Ingeniería eléctrica y de sistemas y automática, Escuela de Ingenierías Industrial, Informática y Aeroespacial**Professional category:** Profesor titular de Universidad**Start date:** 20/01/2023**Dedication regime:** Full time**Previous positions and activities**

	Employing entity	Professional category	Start date
1	Centro Integrado de Formación Profesional Virgen del Buen Suceso	Profesora	16/01/2018
2	Universidad de León	Becaria PIRTU	03/10/2014
3	Universidad de León	Desarrolladora C++	07/03/2013
4	Universidad de León	Profesor Asociado	18/01/2012

1 **Employing entity:** Centro Integrado de Formación Profesional Virgen del Buen Suceso
Professional category: Profesora
Start-End date: 16/01/2018 - 25/09/2019

Type of entity: Centro Integrado

2 **Employing entity:** Universidad de León
Professional category: Becaria PIRTU
Start-End date: 03/10/2014 - 30/09/2017

Type of entity: University

3 **Employing entity:** Universidad de León
Professional category: Desarrolladora C++
Start-End date: 07/03/2013 - 03/10/2014

Type of entity: University

4 **Employing entity:** Universidad de León
Professional category: Profesor Asociado
Start-End date: 18/01/2012 - 02/10/2014

Type of entity: University



Education

University education

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

1 University degree: Máster

Name of qualification: Máster Universitario en Formación del Profesorado de Educación Secundaria Obligatoria y Bachillerato, Formación profesional y Enseñanza de Idiomas

Degree awarding entity: Universidad de León

Type of entity: University

Date of qualification: 06/2012

2 University degree: Máster

Name of qualification: Master de Investigación en cibernética

Degree awarding entity: Universidad de León

Type of entity: University

Date of qualification: 06/2011

3 University degree: Higher degree

Name of qualification: Ingeniero en Informática

Degree awarding entity: Universidad de León

Type of entity: University

Date of qualification: 06/2010

Doctorates

Doctorate programme: Programa Oficial de Doctorado en Sistemas Inteligentes en la Ingeniería

Degree awarding entity: Universidad de León

Type of entity: University

Date of degree: 09/2017

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

1 Training title: Natural Language Processing with Classification and Vector Spaces

Awarding entity: Coursera

End date: 03/02/2022

2 Training title: Deep Learning Specialization

Awarding entity: Coursera

End date: 09/2020

3 Training title: Sequence Models

Awarding entity: Coursera

End date: 09/2020



4 Training title: Convolutional Neural Networks

Awarding entity: Coursera

End date: 07/2020

5 Training title: Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization

Awarding entity: Cousera

End date: 06/2020

6 Training title: Neural Networks and Deep learning

Awarding entity: Cousera

End date: 06/2020

7 Training title: Structuring Machine Learning Projects

Awarding entity: Cousera

End date: 06/2020

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

1 Title of course/seminar: CHATGPT: QUÉ ES, CÓMO FUNCIONA Y CÓMO UTILIZARLA EN INVESTIGACIÓN Y DOCENCIA

Organising entity: Universidad de León

Type of entity: University

Duration in hours: 8 hours

Start-End date: 06/03/2023 - 07/03/2023

2 Title of course/seminar: CONSEJOS PARA PUBLICAR TU INVESTIGACIÓN DESDE LA PERSPECTIVA DE UN EDITOR ASOCIADO DE REVISTAS INDEXADAS EN JCR

Organising entity: Universidad de León

Type of entity: University

Duration in hours: 8 hours

Start-End date: 27/02/2023 - 28/02/2023

3 Title of course/seminar: IX. CONSEJOS Y CLAVES PARA RELLENAR LA SOLICITUD DE ACREDITACIÓN A LAS FIGURAS DE PTU Y CU EN EL PROGRAMA ACADEMIA

Organising entity: Universidad de León

Type of entity: University

Duration in hours: 8 hours

Start-End date: 06/10/2022 - 07/10/2022

4 Title of course/seminar: CREACIÓN, REUTILIZACIÓN Y DIFUSIÓN DE CONTENIDOS EN ENTORNOS DIGITALES

Organising entity: Universidad de León

Duration in hours: 2 hours

Start-End date: 15/06/2022 - 15/06/2022

5 Title of course/seminar: Uso de instagram en docencia

Organising entity: Universidad de León

Type of entity: University

Duration in hours: 2 hours

Start-End date: 15/12/2021 - 15/12/2021



- 6** **Title of course/seminar:** Cómo implementar exámenes con cuestionarios moodle
Organising entity: Universidad de León **Type of entity:** University
Faculty, institute or centre: Escuela de formación
Duration in hours: 3 hours
Start-End date: 27/05/2021 - 27/05/2021
- 7** **Title of course/seminar:** Cómo elaborar un proyecto de investigación
Goals of the course/seminar: 1. Qué es investigar 2. El Proyecto de Investigación. Contenido: 2.1.Planteamiento del problema 2.2.Marco teórico 2.3.Desarrollo metodológico 2.4.Conclusiones 3. Difusión. Informe.
Organising entity: Universidad de León **Type of entity:** University
Faculty, institute or centre: Escuela de Formación
Duration in hours: 3 hours
Start-End date: 27/11/2019 - 27/11/2019
- 8** **Title of course/seminar:** Cómo elaborar un proyecto de investigación
Organising entity: Universidad de León **Type of entity:** University
Duration in hours: 3 hours
Start-End date: 27/11/2019 - 27/11/2019
- 9** **Title of course/seminar:** El docente - Tutor dinamizador
Goals of the course/seminar: Características básicas de la acción tutorial. Funciones y competencias del tutor. Estilos de aprendizaje autónomo. Estrategias para la dinamización y seguimiento de la formación on-line. Comunicaciones telemáticas del tutor. Formatos y tendencias del aprendizaje online.
Organising entity: Universidad de León **Type of entity:** University
Faculty, institute or centre: Escuela de formación
Duration in hours: 3 hours
Start-End date: 11/11/2019 - 11/11/2019

Teaching experience

Participation in innovative teaching projects

Project title: VIDEOTUTORIALES Y PÍLDORAS FORMATIVAS SOBRE LA BÚSQUEDA DE INFORMACIÓN CIENTÍFICA EN CIENCIAS DE LA SALUD: TRABAJO COOPERATIVO

Type of participation: Team member

Time of working relationship: For a limited time

Funding entity: Universidad de León

Start-End date: 24/10/2019 - 15/06/2020

Type of entity: University

Duration: 7 months - 22 days



Scientific and technological experience

Scientific or technological activities

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

- 1** **Name of the project:** Strengthening the research capacity of Turkey in innovative business models for the hospitality sector-REMODEL
Entity where project took place: Universidad de León **Type of entity:** University
Funding entity or bodies: PROYECTOS INVESTIGACIÓN UNIÓN EUROPEA
Start-End date: 01/01/2023 - 31/12/2025
- 2** **Name of the project:** Sistema de visión para la predicción de vida de fresas para mecanizado en condiciones severas con clasificadores basados en fusión de señales
Entity where project took place: Universidad de León **Type of entity:** University
City of entity: León, Castilla y León, Spain
Name principal investigator (PI, Co-PI....): Enrique Alegre Gutiérrez
Funding entity or bodies: Ministerio de Ciencia e Innovación. Investigación **Type of entity:** Ministerio
City funding entity: Madrid, Madrid, Comunidad de, Spain
Start-End date: 01/01/2013 - 31/12/2015
- 3** **Name of the project:** Estimación de la edad a partir del rostro para detectar personas con necesidades especiales de asistencia
Entity where project took place: Universidad de León **Type of entity:** University
City of entity: León, Castilla y León, Spain
Name principal investigator (PI, Co-PI....): Enrique Alegre Gutiérrez
Funding entity or bodies: TELEFONICA DE ESPAÑA, S.A.U.
City funding entity: Spain
Start-End date: 25/10/2013 - 25/10/2014
- 4** **Name of the project:** ASASEC (Advisory System Against Sexual Exploitation of Children)
Entity where project took place: Universidad de León **Type of entity:** University
City of entity: León, Castilla y León, Spain
Name principal investigator (PI, Co-PI....): Enrique Alegre Gutiérrez
Funding entity or bodies: Comisión Europea **Type of entity:** Gobierno
City funding entity: Madrid, Madrid, Comunidad de, Spain
Start-End date: 16/10/2012 - 16/10/2014



- 5** **Name of the project:** Valoración automática de la calidad de semen fresco y criopreservado de verraco mediante segmentación, análisis y clasificación de imagen digital

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

City of entity: León, Castilla y León, Spain

Name principal investigator (PI, Co-PI....): Enrique Alegre Gutiérrez

Funding entity or bodies:

Ministerio de Ciencia e Innovación

Type of entity: Ministerio

City funding entity: Madrid, Madrid, Comunidad de, Spain

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

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

- 1** **Name of the project:** Clasificación de acrosomas en cabezas de espermatozoides como íntegros y dañados en función de su textura y forma

Degree of contribution: Researcher

Name principal investigator (PI, Co-PI....): Enrique Alegre Gutiérrez

Funding entity or bodies:

MICROPTIC, S.L.

City funding entity: Spain

Start date: 22/04/2013

Duration: 3 years

- 2** **Name of the project:** Detección de gotas proximales en colas de espermatozoides de verraco mediante procesamiento digital de imágenes. (Proximal drops detection in boar spermatozoon tails through digital image processing)

Degree of contribution: Researcher

Name principal investigator (PI, Co-PI....): Enrique Alegre Gutierrez

Funding entity or bodies:

MICROPTIC, S.L.

City funding entity: Spain

Start date: 01/10/2010

Duration: 1 year - 10 months - 31 days

Results

Industrial and intellectual property

- 1** **Title registered industrial property:** Aplicación Web como sistema de enseñanza y seguimiento online, adaptada por el cuerpo docente a las necesidades del alumnado del segundo ciclo de Educación Infantil

Inventors/authors/obtainers: Marta Carballo Cabezas; José Alberto Benítez Andrades; Héctor Alaiz Moretón; María Teresa García Ordás; Raquel Leirós Rodríguez; Isaías García Rodríguez; Carmen Benavides Cuéllar

Entity holder of rights: FUNDACION GENERAL DE LA UNIVERSIDAD DE LEON Y DE LA EMPRESA

Nº of application: Le-71-21

Country of inscription: Spain, Castilla y León

Conferral date: 28/06/2021

- 2 Title registered industrial property:** Aplicación Web como sistema de enseñanza de seguimiento online, adaptada por el cuerpo docente a las necesidades del alumnado del segundo ciclo de Educación infantil
Inventors/authors/obtainers: Marta Carballo Cabezas; Jose Alberto Benítez Andrades; Héctor Alaiz Moretón; María Teresa García Ordás; Raquel Leirós Rodríguez; Isaías García Rodríguez; María del Carmen Benavides Cuéllar
Entity holder of rights: Universidad de León
Nº of application: LE-71-21
Country of inscription: Spain, Castilla y León
Date of register: 26/05/2021
- 3 Title registered industrial property:** Sistema y procedimiento para determinar el desgaste en plaquitas de corte utilizadas en operaciones de fresado
Inventors/authors/obtainers: Enrique Alegre; María Teresa García Ordás; Víctor González Castro; Rocio Alaiz Rodríguez
Entity holder of rights: Universidad de León
Nº of application: ES 2 608 469
Country of inscription: Spain
Date of register: 11/04/2017
Conferral date: 30/01/2018
Companies: MICROPTIC, S.L.
- 4 Title registered industrial property:** Sistema y procedimiento para determinar el desgaste en plaquitas de corte utilizadas en operaciones de fresado mediante clasificación de descriptores de forma en imágenes digitales.
Inventors/authors/obtainers: Enrique Alegre; Víctor González Castro; Rocio Alaiz Rodríguez; María Teresa García Ordás; Eduardo Fidalgo
Entity holder of rights: Universidad de León
Nº of application: P201730426
Country of inscription: Spain
Date of register: 10/10/2017
- 5 Title registered industrial property:** Procedimiento y sistema de visión artificial para la descripción y clasificación de espermatozoides según el estado de su acrosoma
Inventors/authors/obtainers: Enrique Alegre; Oscar García-Olalla Olivera; Laura Fernández Robles; María Teresa García Ordás; Víctor González Castro; Eduardo Fidalgo
Entity holder of rights: Universidad de León
Nº of application: ES 2 536 575
Country of inscription: Spain
Date of register: 20/11/2014
Conferral date: 29/02/2016
Companies: MICROPTIC, S.L.
- 6 Title registered industrial property:** Procedimiento de visión artificial para la detección de espermatozoides con colas en ovillo
Inventors/authors/obtainers: Enrique Alegre; Diego García Ordás; María Teresa García Ordás; Oscar García-Olalla Olivera; Laura Fernández Robles; Víctor González Castro
Entity holder of rights: Universidad de León
Nº of application: ES 2 422 178
Country of inscription: Spain
Date of register: 06/03/2012
Conferral date: 27/11/2014
Companies: MICROPTIC, S.L.

- 7 Title registered industrial property:** Procedimiento de visión artificial para la detección de gotas citoplasmáticas proximales en espermatozoides
Inventors/authors/obtainers: Enrique Alegre; Eduardo Fidalgo; Víctor González Castro; Diego García Ordás; Oscar García-Olalla Olivera; María Teresa García Ordás; Laura Fernández Robles
Entity holder of rights: Universidad de León
Nº of application: ES 2 465 740
Country of inscription: Spain
Date of register: 24/09/2013
Conferral date: 30/09/2014
Companies: MICROPTIC, S.L.
- 8 Title registered industrial property:** Procedimiento y sistema para la estimación de proporción de espermatozoides presentes en una muestra que pertenecen a una clase determinada
Inventors/authors/obtainers: Enrique Alegre; Víctor González Castro; Rocio Alaiz Rodríguez; Oscar García-Olalla Olivera; Diego García Ordás; Manuel Castejón Limas; Laura Fernández Robles; María Teresa García Ordás
Entity holder of rights: Universidad de León
Nº of application: ES 2 536 575
Country of inscription: Spain
Date of register: 2014
Companies: MICROPTIC, S.L.
- 9 Title registered industrial property:** Clasificación de espermatozoides en función del estado de su acrosoma utilizando técnicas de visión artificial.
Inventors/authors/obtainers: Víctor González Castro; Enrique Alegre Gutiérrez; Diego García Ordás; Oscar García-Olalla Olivera; María Teresa García Ordás; Laura Fernández Robles; Manuel Castejón Limas
Entity holder of rights: Universidad de León
Nº of application: LE-188-11
Country of inscription: Spain, Castilla y León
Date of register: 18/11/2011
- 10 Title registered industrial property:** Reconocimiento de cabezas de espermatozoide con colas de látigo utilizando técnicas de visión artificial.
Inventors/authors/obtainers: Diego García Ordás; Enrique Alegre Gutiérrez; María Teresa García Ordás; Oscar García-Olalla Olivera; Laura Fernández Robles; Víctor González Castro; Eduardo Fidalgo Fernández
Entity holder of rights: Universidad de León
Nº of application: LE-189-11
Country of inscription: Spain, Castilla y León
Date of register: 18/11/2011
- 11 Title registered industrial property:** Reconocimiento de gotas distales en colas de espermatozoide utilizando técnicas de visión artificial.
Inventors/authors/obtainers: Eduardo Fidalgo Fernández; Enrique Alegre Gutiérrez; Víctor González Castro; Diego García Ordás; Oscar García-Olalla Olivera; María Teresa García Ordás; Laura Fernández Robles
Entity holder of rights: Universidad de León
Nº of application: LE-186-11
Country of inscription: Spain, Castilla y León
Date of register: 18/11/2011



12 Title registered industrial property: Reconocimiento de gotas proximales en colas de espermatozoide utilizando técnicas de visión artificial.

Inventors/authors/obtainers: Eduardo Fidalgo Gutiérrez; Enrique Alegre Gutierrez; Victor González Castro; Diego García Ordás; Oscar García-Olalla Olivera; María Teresa García Ordás; Laura Fernández Robles

Entity holder of rights: Universidad de León

Nº of application: LE-186-11

Country of inscription: Spain, Castilla y León

Date of register: 18/11/2011

Scientific and technological activities

Scientific production

Publications, scientific and technical documents

1 Diego Narciandi-Rodríguez; Jose Aveleira-Mata; María-Teresa García-Ordás; Javier Alfonso-Cendón; Carmen Benavides; Héctor Alaiz-Moretón. A cybersecurity review in IoT 5G networks. Internet of Things. 30, NetherlandsElsevier, 03/2025. ISSN 2542-6605

DOI: 10.1016/j.iot.2024.101478

Type of production: Scientific paper

Position of signature: 3

Total no. authors: 6

Impact source: JCR

Impact index in year of publication: 6

Relevant publication: Yes

Format: Scientific and technical document or report

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

Corresponding author: No

Category: COMPUTER SCIENCE, INFORMATION SYSTEMS

Journal in the top 25%: Yes

2 Sergio Rubio-Martín; María Teresa García-Ordás; Antonio Serrano-García; Clara Margarita Franch-Pato; Arturo Crespo-Álvaro; José Alberto Benítez-Andrades. Classification of psychiatry clinical notes by diagnosis: a deep learning and machine learning approach. PeerJ Computer Science. (United Kingdom): 02/2025.

Type of production: Scientific paper

Position of signature: 2

Total no. authors: 6

Impact source: WOS (JCR)

Impact index in year of publication: 2.5

Relevant results: Q2

Relevant publication: Yes

Corresponding author: No

Category: COMPUTER SCIENCE, THEORY & METHODS

Journal in the top 25%: No

3 Martín Bayón-Gutiérrez; Natalia Prieto-Fernández; María-Teresa García-Ordás; José Alberto Benítez-Andrades; Héctor Alaiz-Moretón; Giorgio Grisetti. CAD2SLAM: Adaptive Projection Between CAD Blueprints and SLAM Maps. IEEE Robotics and Automation Letters. 10, pp. 1529 - 1536. USAIEEE, 2025. Available on-line at: <<https://doi.org/10.1109/LRA.2024.3522838>>. ISSN 2377-3766

DOI: 10.1109/LRA.2024.3522838

Type of production: Scientific paper

Position of signature: 3

Total no. authors: 6

Impact source: WOS(JCR)

Impact index in year of publication: 4.6

Position of publication: 12

Relevant publication: Yes

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

Corresponding author: No

Category: ROBOTICS

No. of journals in the cat.: 46

- 4** María Teresa García-Ordás; Jose Aveleira-Mata; Isaías García-Rodríguez; José Luis Casteleiro-Roca; Martín Bayón-Gutiérrez; Héctor Alaiz-Moretón. Influence of autoencoder latent space on classifying IoT CoAP attacks. Logic Journal Of The Igpl. 03/09/2024.

Type of production: Scientific paper

Corresponding author: No

- 5** Álvaro Michelena; María Teresa García-Ordás; José Aveleira-Mata; David-Yeregui Marcos del Blanco; Míriam Timiraos-Díaz; Francisco Zayas-Gato; Esteban Jove; José-Luis Casteleiro-Roca; Héctor Quintián; Héctor Alaiz-Moretón; José-Luis Calvo-Rolle. Beta Hebbian Learning for intrusion detection in networks with MQTT Protocols for IoT devices. Logic Journal of the IGPL. 32 - 2, 20/03/2024.

Type of production: Scientific paper

Corresponding author: No

- 6** María Teresa García-Ordás; José Alberto Benítez-Andrades; José Aveleira Mata; José-Manuel Alija-Pérez; Carmen Benavides. Determining the severity of Parkinson's disease in patients using a multi task neural network. Multimedia Tools and Applications. 2024.

Type of production: Scientific paper

Corresponding author: No

- 7** María-Teresa García-Ordás; Martín Bayón-Gutiérrez; Natalia Prieto-Fernández; José Alberto Benítez-Andrades. Enhancing ASD detection accuracy: a combined approach of machine learning and deep learning models with natural language processing. Health Information Science and Systems. 14, SPRINGER, 2024.

Type of production: Scientific paper

Corresponding author: No

- 8** Martín Bayón-Gutiérrez; María Teresa García-Ordás; Héctor Alaiz-Moretón; Jose Aveleira-Mata; Sergio Rubio-Martín; José Alberto Benítez-Andrades. TEDNet: Twin Encoder Decoder Neural Network for 2D Camera and LiDAR Road Detection. Logic Journal of the IGPL. Oxford University Press, 2024.

Type of production: Scientific paper

Corresponding author: No

- 9** Santiago Valbuena-Rubio; María-Teresa García-Ordás; Oscar García-Olalla Olivera; Héctor Alaiz-Moretón; María-Inmaculada González-Alonso; José-Alberto Benítez-Andrades. Survival and grade of the glioma prediction using transfer learning. PeerJ Computer Science. 9, 09/12/2023.

Type of production: Scientific paper

Corresponding author: No

- 10** Daniel Fernández-Alonso; Javier Fernández-Lozano; María Teresa García-Ordás. Convolutional neural networks for accurate identification of mining remains from UAV-derived images. Applied Intelligence. 04/11/2023.

Type of production: Scientific paper

Corresponding author: Yes



- 11** Pilar Marqués-Sánchez; María Cristina Martínez-Fernández; José Alberto Benítez-Andrades; Enedina Quiroga-Sánchez; María-Teresa García-Ordás; Natalia Arias-Ramos. Adolescent Relational Behaviour and the Obesity Pandemic: A descriptive study applying social network analysis and machine learning techniques. Plos One. 18, PUBLIC LIBRARY SCIENCE, 15/08/2023.
Type of production: Scientific paper
Corresponding author: No
- 12** María-Teresa García-Ordás; José-Alberto Benítez-Andrades; Héctor Alaiz-Moretón; Isaías García-Rodríguez. Multispecies bird sound recognition using a fully convolutional neural network. Applied Intelligence. SPRINGER, 07/07/2023.
Type of production: Scientific paper
Corresponding author: No
- 13** María-Teresa García-Ordás; Martín Bayón-Gutiérrez; Carmen Benavides; José Aveleira-Mata; José-Alberto Benítez-Andrades. Heart disease risk prediction using deep learning techniques with feature augmentation. Multimedia Tools and Applications. 14/03/2023.
Type of production: Scientific paper
Format: Journal
Corresponding author: No
- 14** Iván de Paz Centeno; María Teresa García Ordás; Oscar García-Olalla; Carlos Girón Casares; Héctor Alaiz Moretón. A Granularity Invariant Method for the Classification of Energy Production Time Series in Photovoltaic Plants. IEEE Access. 11, pp. 16923 - 16933. IEEE, 2023.
Type of production: Scientific paper
Format: Journal
Corresponding author: No
- 15** Ángel Delgado-Panadero; José Alberto Benítez-Andrades; María-Teresa García-Ordás. A generalized decision tree ensemble based on the NeuralNetworks architecture: Distributed Gradient Boosting Forest (DGBF).Applied Intelligence. 2023.
Type of production: Scientific paper
Corresponding author: No
- 16** María Teresa García-Ordás; Héctor Alaiz-Moretón; José-Luis Casteleiro-Roca; Esteban Jove; José Alberto Benítez-Andrades; Esteban Jove; José Alberto Benítez-Andrades; Isaías García-Rodríguez; Isaías García-Rodríguez. Clustering Techniques Selection for a Hybrid Regression Model: A Case Study Based on a Solar Thermal System. Cybernetics and Systems. 54 - 3, pp. 286 - 305. Taylor&Francis, 2023.
Type of production: Scientific paper
Format: Journal
Corresponding author: No
- 17** María Teresa García Ordás; Héctor Alaiz-Moretón; José-Luis Casteleiro-Roca; Esteban Jove; José-Alberto Benítez-Andrades; Isaías García-Rodríguez; Héctor Quintián; José-Luis Calvo-Rolle. Clustering Techniques Selection for a Hybrid Regression Model: A Case Study Based on a Solar Thermal System. Cybernetics and Systems. 54, Castilla y León(Spain): 2023.
Type of production: Scientific paper
Format: Journal
Corresponding author: No
- 18** Jose Alberto Benitez Andrades; María Teresa García Ordás; Mayra Russo Ahmad Sakor; Luis Daniel Fernandes Rotger; María Esther Vidal. Empowering Machine Learning Models with Contextual Knowledge for Enhancing the Detection of Eating Disorders in Social Media Posts. Semantic Web. 14, pp. 873 - 892. IOS PRESS, 2023.
Type of production: Scientific paper
Format: Journal
Corresponding author: No

- 19** Iván de Paz Centeno; María-Teresa García-Ordás; Oscar García-Olalla; Héctor Alaiz-Moretón. Imputation of Missing Measurements in PV Production Data within Constrained Environments. Expert Systems with Applications (ESWA). 217, Elsevier, 2023.
Type of production: Scientific paper
Corresponding author: No
- 20** José Alberto Benítez-Andrades; María Teresa García-Ordás; María Álvarez-González; Raquel Leirós-Rodríguez; Ana F López Rodríguez. Detection of the most influential variables for preventing postpartum urinary incontinence using machine learning techniques. Digital Health. SAGE, 05/07/2022.
Type of production: Scientific paper
Format: Journal
Corresponding author: Yes
- 21** José Alberto Benítez-Andrades; Álvaro González-Jiménez; Álvaro López-Brea; José Aveleira-Mata; José-Manuel Alija-Pérez; María Teresa García-Ordás. Detecting racism and xenophobia using deep learning models on Twitter data: CNN, LSTM and BERT. PeerJ Computer Science. 8, PEERJ INC, 01/03/2022.
Type of production: Scientific paper
Format: Journal
Corresponding author: No
- 22** Ángel Delgado Panadero; Beatriz Hernández Lorca; María Teresa García Ordás; José Alberto Benítez Andrades. Implementing local-explainability in Gradient Boosting Trees: Feature Contribution. Information Science. 589, pp. 199 - 212. Elsevier, 04/01/2022.
Type of production: Scientific paper
Format: Journal
Corresponding author: Yes
- 23** José Alberto Benítez Andrades; José Manuel Alija-Pérez; María Esther Vidal; Rafael Pastor-Vargas; María Teresa García-Ordás. Traditional Machine Learning Models and Bidirectional Encoder Representations From Transformer (BERT)-Based Automatic Classification of Tweets About Eating Disorders: Algorithm Development and Validation Study. JMIR Medical Informatics. 10, 2022.
Type of production: Scientific paper
Format: Journal
Corresponding author: No
- 24** Iván De Paz Centeno; María-Teresa García Ordás; Oscar García-Olalla Olivera; Javier Arenas; Héctor Alaiz Moretón. M-SRPCNN: A Fully Convolutional Neural Network Approach for Handling Super Resolution Reconstruction on Monthly Energy Consumption Environments. Energies. 14 - 16, MDPI, 05/08/2021.
Type of production: Scientific paper
Format: Journal
- 25** María Teresa García Ordás; Héctor Alaiz Moretón; José Alberto Benítez Andrades; Isaías García Rodríguez; Oscar García-Olalla Olivera; Carmen Benavides. Sentiment analysis in non-fixed length audios using a Fully Convolutional Neural Network. Biomedical Signal Processing and Control. 28/06/2021.
Type of production: Scientific paper
Format: Journal
Corresponding author: No
- 26** Francisco José Aguayo-Canela; Héctor Alaiz Moretón; María Teresa García-Ordas; José Alberto Benítez Andrades; Carmen Benavides; Isaías García Rodríguez. Enriched multi-agent middleware for building rule-based distributed security solutions for IoT environments. Journal of Supercomputing. Springer, 05/04/2021.
Type of production: Scientific paper
Format: Journal
Corresponding author: No
- 27** Francisco José Aguayo-Canela; Héctor Alaiz-Moretón; María Teresa García-Ordás; José Alberto Benítez-Andrades; Carmen Benavides; Paulo Novais; Isaías García-Rodríguez. Middleware-based multi-agent development environment for building and testing distributed intelligent systems. Cluster Computing. Springer, 25/03/2021.
Type of production: Scientific paper
Format: Journal
Corresponding author: No

- 28** María Teresa García Ordás; Carmen Benavides; José Alberto Benítez Andrades; Héctor Alaiz Moretón; Isaías García Rodríguez. Diabetes detection using deep learning techniques with oversampling and feature augmentation. Computer methods and programs in biomedicine. 202, Elsevier, 15/02/2021.

Type of production: Scientific paper **Format:** Journal

Corresponding author: No
- 29** Nahúm Cueto López; María Teresa García Ordás; Facundo Vitelli Storelli; Pablo Fernández Navarro; Camilo Palazuelos; Rocío Alaiz Rodríguez. Evaluation of Feature Selection Techniques for Breast Cancer Risk Prediction. International Journal of environmental research and public health. MDPI, 2021.

Type of production: Scientific paper **Format:** Journal

Corresponding author: Yes
- 30** José Aveleira Mata; Ángel Luis Muñoz Castañeda; María Teresa García Ordás; Carmen Benavides Cuéllar; José Alberto Benítez Andrades; Héctor Alaiz Moretón. Prototipo de IDS para detección de intrusiones con modelos de machine learning en sistemas IoT de la industria 4.0. DYNA. 96, 2021.

Type of production: Scientific paper
- 31** María Teresa García Ordás; Natalia Arias; Carmen Benavides; Oscar García-Olalla; José Alberto Benítez Andrades. Evaluation of Country Dietary Habits Using Machine Learning Techniques in Relation to Deaths from COVID-19. Healthcare. 8 - 4, pp. 371. MDPI, 29/09/2020.

Type of production: Scientific paper **Format:** Journal

Corresponding author: No
- 32** José Alberto Benítez Andrades; Natalia Arias; María-Teresa García Ordás; Marta Martínez Martínez; Isaías García Rodríguez. Feasibility of Social-Network-Based eHealth Intervention on the Improvement of Healthy Habits among Children. Sensors. 20, MDPI, 04/03/2020.

Type of production: Scientific paper **Format:** Journal

Corresponding author: No
- 33** María Teresa García Ordás; Jose Alberto Benítez Andrades; Isaías García Rodríguez; Carmen Benavides; Héctor Alaiz Moretón. Detecting Respiratory Pathologies Using Convolutional Neural Networks and Variational Autoencoders for Unbalancing Data. Sensors. 20 - 4, MDPI, 22/02/2020.

Type of production: Scientific paper **Format:** Journal

Corresponding author: Yes
- 34** Nahúm Cueto López; María Teresa García Ordás; Verónica Dávila Batista; Víctor Moreno; Nuria Aragonés; Rocío Alaiz Rodríguez. A comparative study on feature selection for a risk prediction model for colorectal cancer. Computer Methods and programs in biomedicine. Elsevier, 08/2019.

Type of production: Scientific paper **Format:** Journal
- 35** María Teresa García Ordás; Enrique Alegre Gutiérrez; Rocío Aláiz Rodríguez; Víctor González Castro. Tool wear monitoring using an online, automatic and low cost system based on local texture. Mechanical Systems and Signal processing. Elsevier, 10/2018.

Type of production: Scientific paper **Format:** Journal

Corresponding author: Yes
- 36** María Teresa García Ordás; Enrique Alegre Gutiérrez; Víctor González Castro; Rocío Alaiz Rodríguez. Combining shape and contour features to improve tool wear monitoring in milling processes. International Journal of Production Research. Taylor & Francis, 01/2018.

Type of production: Scientific paper **Format:** Journal

Corresponding author: Yes

- 37** María Teresa García Ordás; Enrique Alegre Gutiérrez; Víctor González Castro; Rocío Alaiz Rodríguez. A computer vision approach to analyse and classify tool wear level in milling processes using shape descriptors and machine learning techniques. International Journal of Advanced Manufacturing Technology. Springer, 12/2016.
Type of production: Scientific paper **Format:** Journal
Corresponding author: Yes
- 38** O. García-Olalla; E. Alegre; J. Barreiro; L. Fernández-Robles; M.T. García-Ordás. Tool Wear Classification Using LBP-based Descriptors Combined with LOSIB-based Enhancers. Procedia Engineering. 132, pp. 950 - 957. 2015. Available on-line at: <<http://www.sciencedirect.com/science/article/pii/S187770581504494X>>. ISSN 1877-7058
Type of production: Scientific paper **Format:** Journal
- 39** M.T. García-Ordás; E. Alegre; V. González-Castro; O. García-Olalla; J. Barreiro; A.I. Fernández-Abia. aZIBO Shape Descriptor for Monitoring Tool Wear in Milling. Procedia Engineering. 132, pp. 958 - 965. 2015. Available on-line at: <<http://www.sciencedirect.com/science/article/pii/S1877705815044951>>. ISSN 1877-7058
Type of production: Scientific paper **Format:** Journal
- 40** Oscar García-Olalla Olivera; Enrique Alegre Gutiérrez; Laura Fernández Robles; María Teresa García Ordás; Diego García Ordás. Adaptive local binary pattern with oriented standard deviation (ALBPS) for texture classification. EURASIP Journal on Image and Video. Springer, 2013.
Type of production: Scientific paper **Format:** Journal
- 41** Patricia Morala Argüello; Joaquín Barreiro; Enrique Alegre; María Teresa García Ordás; Oscar García-Olalla Olivera. Surface roughness prediction from combination of cutting forces, turning vibrations and machining conditions using artificial neural networks. AIP Conference Proceedings. 1431, pp. 510 - 517. AIP Publishing, 07/2012.
Type of production: Scientific paper **Format:** Journal
Corresponding author: No
- 42** Patricia Morala Argüello; Joaquín Barreiro; Enrique Alegre Gutiérrez; María Teresa García Ordás; Oscar García-Olalla Olivera; Daniel González Madruga. Reliability of Monitoring Signals for Estimation of Surface Roughness in Metallic Turned Parts. Advanced Materials Research. Springer, 04/2012.
Type of production: Scientific paper **Format:** Journal
- 43** Víctor González Castro; Enrique Alegre Gutiérrez; Oscar García-Olalla Olivera; Laura Fernández Robles; María Teresa García Ordás. Adaptive Pattern Spectrum Image Description using Euclidean and Geodesic Distance Without Training for Texture Classification. IET Computer Vision. 6 - 6, pp. 581 - 589. IET, 2012.
Type of production: Scientific paper **Format:** Journal
- 44** Enrique Alegre Gutiérrez; Víctor González Castro; Rocío Alaiz Rodríguez; María Teresa García Ordás. Texture and moments based classification of the acrosome integrity of boar spermatozoa images. Computer methods and programs in biomedicine. Elsevier, 2012.
Type of production: Scientific paper **Format:** Journal

Works presented at national or international conferences

- 1** **Title of the work:** Feature importance analysis of meteorological weather for mini eolic electrical power prediction using clustering information
Name of the conference: SOCO 2024
Corresponding author: No
City of event: Salamanca, Spain
Date of event: 09/10/2024
End date: 11/10/2024
Organising entity: Universida de Salamanca **Type of entity:** University

City organizing entity: Salamanca,

María Teresa García-Ordás; Paula Arcano-Bea; Manuel Rubiños; Esteban Jove; Diego Narciandi-Rodríguez; Héctor Alaiz-Moretón.

2 Title of the work: Missing meteorological data imputation for mini eolic electrical power prediction

Name of the conference: HAIS 2024

Corresponding author: No

City of event: Salamanca, Castilla y León, Spain

Date of event: 09/10/2024

End date: 11/10/2024

Organising entity: Universidad de Salamanca

Type of entity: University

City organizing entity: Salamanca, Spain

María-Teresa García-Ordás; Antonio Díaz-Longueira; Álvaro Michelena; Esteban Jove; Martín Bayón-Gutiérrez; Héctor Alaiz-Moretón.

3 Title of the work: Localización en entornos estructurados basada en la detección de esquinas

Name of the conference: XLV Jornadas de automática

Corresponding author: No

City of event: Málaga, Spain

Date of event: 04/09/2024

End date: 06/09/2024

Organising entity: COMITE ESPAÑOL DE AUTOMATICA DE LA IFAC

Martín Bayón-Gutiérrez; Natalia Prieto Fernández; Isaías García-Rodríguez; Carmen Benavides; María-Teresa García-Ordás; José-Alberto Benítez-Andrades.

4 Title of the work: Comparative analysis of intelligent techniques for categorization of the operational status of LiFePo4 batteries

Name of the conference: The 18th International Conference on Hybrid Artificial Intelligence Systems (HAIS 2023)

Corresponding author: No

City of event: Salamanca,

Date of event: 05/09/2023

End date: 07/09/2023

Organising entity: Universidad de Salamanca

City organizing entity: Salamanca, Spain

Antonio Díaz-Longueira; Álvaro Michelena; Miriam Timiraos; Francisco Zayas-Galo; Héctor Quintián; Carmen Benavides-Cuellar; Héctor Alaiz-Moretón; José Luis Calvo-Rolle; María Teresa García-Ordás. "Comparative analysis of intelligent techniques for categorization of the operational status of LiFePo4 batteries".

5 Title of the work: Machine Learning based system for detecting battery state-of-health

Name of the conference: 18th International Conference on Soft Computing Models in Industrial and Environmental Applications

Corresponding author: No

City of event: Salamanca,

Date of event: 05/09/2023

End date: 07/09/2023

Organising entity: Universidad de Salamanca

Álvaro Michelena; Antonio Díaz-Longueira; Miriam Timiraos; Francisco Zayas-Galo; Héctor Quintián; Natalia Prieto-Fernández; Héctor Alaiz-Moretón; José Luis Calvo-Rolle; María Teresa García-Ordás. "Machine Learning based system for detecting battery state-of-health".

- 6** **Title of the work:** One-Class Reconstruction Methods for Categorizing DoS Attacks on CoAP
Name of the conference: The 18th International Conference on Hybrid Artificial Intelligence Systems (HAIS 2023)
Corresponding author: No
City of event: Salamanca, Spain
Date of event: 05/09/2023
End date: 07/09/2023
Organising entity: Universidad de Salamanca
Álvaro Michelena; Antonio Díaz-Longueira; Miriam Timiraos; Esteban Jove; Jose Aveleira-Mata; Isaías García-Rodríguez; María Teresa García-Ordás; José Luis Calvo-Rolle; Héctor Alaiz-Moretón. "One-Class Reconstruction Methods for Categorizing DoS Attacks on CoAP".
- 7** **Title of the work:** AUTOMATIC CLASSIFICATION OF SQUAT EXECUTION BASED ON INERTIAL SENSORS AND MACHINE LEARNING
Name of the conference: IX International Conference on Science, Technology, and Innovation for Society (CITIS 2023)
Corresponding author: No
City of event: Guayaquil, Ecuador
Date of event: 26/07/2023
End date: 28/07/2023
Organising entity: Universidad Politécnica salesiana de Ecuador
Byron Zapata; Fabián Narváez; María-Teresa García-Ordás; Diego Zapata. "AUTOMATIC CLASSIFICATION OF SQUAT EXECUTION BASED ON INERTIAL SENSORS AND MACHINE LEARNING".
- 8** **Title of the work:** Text Classification of Users Claiming to Have ASD Using Traditional Machine Learning Techniques
Name of the conference: Eureka-pro Conference on Responsible Consumption and Production
Date of event: 12/06/2023
Organising entity: Springer
Sergio Rubio-Martín; María Teresa García-Ordás; Martín Bayón-Gutiérrez; Silvia Martínez Villamea; Natalia Arias-Ramos; José Alberto Benítez-Andrades.
- 9** **Title of the work:** Text classification of users claiming to have ASD using traditional machine learning techniques
Name of the conference: EURECA-PRO Conference on Responsible Consumption and Production 2022 (EURECAPRO22)
City of event: León, Spain
Date of event: 19/10/2022
End date: 21/10/2022
Organising entity: Springer Nature EquinOCS
Sergio Rubio-Martín; María-Teresa García-Ordás; Martín Bayón-Gutiérrez; Silvia Martínez-Villamea; Natalia Arias-Ramos; José-Alberto Benítez-Andrades.
- 10** **Title of the work:** Using Super Resolution Perception for Anomaly Detection in Energy Load Profiles
Name of the conference: International Conference on Electrical, Computer and Energy Technologies (ICECET2022)
Corresponding author: No
City of event: Prague, Czech Republic
Date of event: 20/07/2022
End date: 22/07/2022
Iván De-Paz-Centeno; María Teresa García-Ordás; Oscar García-Olalla; Héctor Alaiz-Moretón.

- 11 Title of the work:** Minimum cost Eulerian cycles in road networks
Name of the conference: 17ª Conferencia Ibérica de Sistemas y Tecnologías de Información
Corresponding author: No
City of event: Madrid, Madrid, Comunidad de, Spain
Date of event: 22/06/2022
End date: 25/06/2022
Organising entity: Universidad Complutense de Madrid
Type of entity: University
Martín Bayón-Gutiérrez; Héctor Alaiz-Moretón; Isaías García-Rodríguez; Carmen Benavides; María Teresa García-Ordás; José Alberto Benítez-Andrades. "Minimum cost Eulerian cycles in road networks".
- 12 Title of the work:** BERT model-based approach for detecting racism and xenophobia on Twitter data
Name of the conference: International Conference on Metadata and Semantics Research
Corresponding author: No
Date of event: 29/11/2021
End date: 03/12/2021
Organising entity: FUNDACION GENERAL DE LA UNIVERSIDAD COMPLUTENSE DE MADRID
María Teresa García Ordás; Jose Alberto Benítez András; Álvaro González Jiménez; Álvaro López Brea; Carmen Benavides; Jose Aveleira Mata; Jose Manuel Alija Pérez.
- 13 Title of the work:** Beta Hebbian Learning for Intrusion Detection in Networks of IoT Devices
Name of the conference: International Conference on European Transnational Educational (ICEUTE)
Corresponding author: No
City of event: Bilbao, País Vasco, Spain
Date of event: 22/09/2021
End date: 24/09/2021
Organising entity: Universidad de Deusto
Type of entity: University
City organizing entity: Bilbao, País Vasco, Spain
Álvaro Michelena Grandío; María Teresa García Ordás; David Yeregui Marcos del Blanco; José Aveleira Mata; Francisco Zayas Gato; Esteban Jove; José Luis Casteleiro Roca; Héctor Quintián; Héctor Alaiz Moretón; Jose Luis Calvo Rolle. "International Conference on Computational Intelligence in Security for Information Systems and 12th International Conference on European Transnational Educational (CISIS 2021 and ICEUTE 2021)".
- 14 Title of the work:** Detection of Denial of Service Attacks in an MQTT Environment Using a One-Class Approach
Name of the conference: International Conference on European Transnational Educational (ICEUTE)
Corresponding author: No
City of event: Bilbao, País Vasco, Spain
Date of event: 22/09/2021
End date: 24/09/2021
Organising entity: Universidad de Deusto
Type of entity: University
City organizing entity: Bilbao, País Vasco, Spain
José Aveleira Mata; Esteban Jove; David Yeregui Marcos del Blanco; María Teresa García Ordás; Francisco Zayas Gato; Álvaro Michelena; José Luis Casteleiro Roca; Héctor Quintián; Héctor Alaiz Moretón; Jose Luis Calvo Rolle. "International Conference on Computational Intelligence in Security for Information Systems and 12th International Conference on European Transnational Educational (CISIS 2021 and ICEUTE 2021)".

- 15** **Title of the work:** Intervenciones en red: Sano y Feliz
Name of the conference: VI Summer Course en ARS y VI Workshop de Investigación: ARS y salud. EnRedando en Villafranca del Bierzo
City of event: Villafranca del Bierzo, Castilla y León, Spain
Date of event: 09/07/2021
End date: 10/07/2021
Organising entity: Universidad de León **Type of entity:** University
Enedina Quiroga Sánchez; María Teresa García Ordás; María Cristina Martínez Fernández; Bibiana Trevissón Redondo; Rubén García Fernández. "Intervenciones en red: Sano y Feliz".
- 16** **Title of the work:** BERT Model-Based Approach For Detecting Categories of Tweets in the Field of Eating Disorders (ED)
Name of the conference: Computer Based Medical Systems
Corresponding author: No
Date of event: 07/06/2021
End date: 09/06/2021
Organising entity: Universidade de aveiro **Type of entity:** University
Jose Alberto Benítez Andrades; José Manuel Alija Pérez; Isaías García Rodríguez; Carmen Benavides; Héctor Alaiz Moretón; Rafael Pastor Vargas; María Teresa García Ordás.
- 17** **Title of the work:** Clustering techniques performance analysis for a solar thermal collector hybrid model implementation
Name of the conference: 15th International Conference on Hybrid Artificial Intelligence Systems
City of event: Gijón, Asturias, Principado de, Spain
Date of event: 11/11/2020
End date: 13/11/2020
Organising entity: Universidad de Oviedo **Type of entity:** University
City organizing entity: Gijón,
María Teresa García Ordás; Héctor Alaiz Moretón; Jose Luis Casteleiro Roca; Esteban Jove; Jose Alberto Benítez Andrades; Carmen Benavides Cuéllar; Héctor Quintián; Jose Luis Calvo Rolle.
- 18** **Title of the work:** Comparative of Clustering Techniques for Academic Advice and Performance Measurement
Name of the conference: ICEUTE 2020
Corresponding author: Yes
City of event: Burgos, Spain
Date of event: 18/09/2020
End date: 18/09/2020
María Teresa García-Ordás; José Antonio López-Vázquez; Héctor Alaiz-Moretón; José Luis Casteleiro-Roca; David-Yeregui Marcos del Blanco; Roberto Casado-Vara; José Luis Calvo-Rolle. "Comparative of Clustering Techniques for Academic Advice and Performance Measurement".
- 19** **Title of the work:** Comparative Analysis of Clustering Techniques for a hybrid model implementation
Name of the conference: 15th International Conference on Soft Computing Models in Industrial and Environmental Applications
City of event: Burgos, Castilla y León, Spain
Date of event: 16/09/2020
End date: 18/09/2020
Organising entity: Universidad de Burgos **Type of entity:** University
María Teresa García Ordás; Héctor Alaiz Moretón; Jose Luis Casteleiro Roca; Esteban Jove; Jose Alberto Benítez Andrades; Isaías García Rodríguez; Héctor Quintián; Jose Luis Calvo Rolle.

- 20** **Title of the work:** Comparative of clustering techniques for academic advice and performance measurement
Name of the conference: 11th International Conference on European Transnational Educational
City of event: Burgos, Castilla y León, Spain
Date of event: 16/09/2020
End date: 18/09/2020
Organising entity: Universidad de Burgos **Type of entity:** University
María Teresa García Ordás; Jose Antonio López Vázquez; Héctor Alaiz Moretón; Jose Luis Casteleiro Roca; David Yeregui Marcos-Blanco; Roberto Casado Vara; Jose Luis Calvo Rolle.
- 21** **Title of the work:** Analyzing IoT-based botnet malware activity with distributed low interaction honeypots
Name of the conference: 8th World Conference on Information Systems and technologies
Corresponding author: No
City of event: Budva, Montenegro
Date of event: 07/04/2020
End date: 10/04/2020
Organising entity: AISTI
Sergio Vidal González; Isaías García Rodríguez; Héctor Aláiz Moretón; Carmen Benavides Cuéllar; Jose Alberto Benítez Andrades; María Teresa García Ordás; Paulo Novais.
- 22** **Title of the work:** Assessing Feature Selection Techniques for a Colorectal Cancer Prediction Model
Name of the conference: International Joint Conference SOCO'17-CISIS'17-ICEUTE'17
Corresponding author: No
City of event: León, Castilla y León, Spain
Date of event: 06/09/2017
End date: 08/09/2017
Organising entity: Universidad de León **Type of entity:** University
Nahúm Cueto López; Rocío Alaiz Rodríguez; María Teresa García Ordás; Carmen González Donquiles; Vicente Martín.
- 23** **Title of the work:** An evaluation of Cascade Object Detector and Support Vector Machine methods for people detection using a RGB-Depth camera located in a zenithal position
Name of the conference: Jornadas de Automática
City of event: Bilbao, País Vasco, Spain
Date of event: 2015
Eduardo López de Celis; Oscar García-Olalla Olivera; María Teresa García Ordás; Enrique Alegre.
- 24** **Title of the work:** How to find an image despite it has been modified
Name of the conference: Jornadas nacionales de investigación en Ciberseguridad.
City of event: León, Castilla y León, Spain
Date of event: 2015
Diego García Ordás; Laura Fernández Robles; María Teresa García Ordás; Oscar García-Olalla Olivera; Enrique Alegre.
- 25** **Title of the work:** Tool wear classification using LBP-based descriptors combined with LOSIB-based enhancers
Name of the conference: 6th Manufacturing Engineering Society International Conference
City of event: Barcelona, Cataluña, Spain
Date of event: 2015
Oscar García-Olalla Olivera; Enrique Alegre Gutiérrez; Joaquín Barreiro; Laura Fernández Robles; María Teresa García Ordás.



- 26 Title of the work:** Tracking and counting people from a zenithal view using RGD-D images and Kalman filter.
Name of the conference: Jornadas de Automática
City of event: Bilbao, País Vasco, Spain
Date of event: 2015
Paula Álvarez Álvarez; María Teresa García Ordás; Eduardo Fidalgo; Enrique Alegre.
- 27 Title of the work:** aZIBO shape descriptor for monitoring tool wear in milling
Name of the conference: 6th Manufacturing Engineering Society International Conference
City of event: Barcelona, Cataluña, Spain
Date of event: 2015
María Teresa García Ordás; Enrique Alegre; Víctor González Castro; Oscar García-Olalla Olivera; Joaquín Barreiro; Ana Isabel Fernández Abia.
- 28 Title of the work:** Tool wear classification using texture descriptors based on Local Binary Pattern
Name of the conference: Jornadas de automática
City of event: Valencia, Comunitat Valenciana, Spain
Date of event: 2014
Oscar García-Olalla Olivera; Enrique Alegre Gutiérrez; Joaquín Barreiro; Laura Fernández Robles; María Teresa García Ordás.
- 29 Title of the work:** Tool wear monitoring in milling using aZIBO shape descriptor
Name of the conference: Jornadas de automática
City of event: Valencia, Comunitat Valenciana, Spain
Date of event: 2014
María Teresa García Ordás; Enrique Alegre; Joaquín Barreiro; Diego García Ordás; Víctor González Castro.
- 30 Title of the work:** aZIBO. A new descriptor based in shape moments and rotational invariant features
Name of the conference: International Conference on pattern Recognition (ICPR)
City of event: Estocolmo, Stockholm, Sweden
Date of event: 2014
María Teresa García Ordás; Enrique Alegre Gutiérrez; Víctor González Castro; Diego García Ordás.
- 31 Title of the work:** Automatic tampering detection in spliced images with different compression levels
Name of the conference: 6th Iberian Conference on Pattern Recognition and Image Analysis (IbPRIA)
City of event: Funchal, Região Autónoma da Madeira, Portugal
Date of event: 2013
Diego García Ordás; Laura Fernández Robles; Enrique Alegre; María Teresa García Ordás; Oscar García-Olalla Olivera.
- 32 Title of the work:** Combining SURF with global texture descriptors for classifying boar sperm
Name of the conference: Jornadas de automática
City of event: Terrasa, Cataluña, Spain
Date of event: 2013
Laura Fernández Robles; Enrique Alegre; María Teresa García Ordás; Oscar García-Olalla Olivera; Diego García Ordás; Eduardo Fidalgo.
- 33 Title of the work:** Comparison of different Local Binary Pattern variants for material recognition using KTH-TIPS 2a dataset
Name of the conference: Jornadas de Automática

City of event: Terrasa, Cataluña, Spain

Date of event: 2013

Oscar García-Olalla Olivera; María Teresa García Ordás; Laura Fernández Robles; Diego García Ordás; Enrique Alegre.

34 Title of the work: Evaluation of Different Metrics for Shape Based Image Retrieval Using a New Contour Points Descriptor

Name of the conference: International Conference on Similarity Search and Applications (SISAP)

City of event: A Coruña, Galicia, Spain

Date of event: 2013

María Teresa García Ordás; Enrique Alegre; Oscar García-Olalla Olivera; Diego García Ordás. "Similarity Search and Applications, SPRINGER VERLAG GMBH & CO.KG".

35 Title of the work: Evaluation of LBP Variants Using Several Metrics and kNN Classifiers

Name of the conference: International Conference on Similarity Search and Applications

City of event: A Coruña, Galicia, Spain

Date of event: 2013

Oscar García-Olalla Olivera; Enrique Alegre; María Teresa García Ordás; Laura Fernández Robles. "Similarity Search and Applications, SPRINGER VERLAG GMBH & CO.KG".

36 Title of the work: Evaluation of shape and color descriptors by using bag of Word techniques with one vs all classification

Name of the conference: Jornadas de Automática

City of event: Terrasa, Cataluña, Spain

Date of event: 2013

Eduardo Fidalgo; Laura Fernández Robles; María Teresa García Ordás; Oscar García-Olalla Olivera; Enrique Alegre.

37 Title of the work: Robustness to rotation in perceptual hashing methods via dominant orientation

Name of the conference: Jornadas de Automática

City of event: Terrasa, Cataluña, Spain

Date of event: 2013

Diego García Ordás; Enrique Alegre; María Teresa García Ordás; Oscar García-Olalla Olivera; Laura Fernández Robles.

38 Title of the work: Rotation Invariant Contour Points Descriptor Histogram for shape based image retrieval

Name of the conference: Jornadas de Automática

City of event: Terrasa, Cataluña, Spain

Date of event: 2013

María Teresa García Ordás; Oscar García-Olalla Olivera; Laura Fernández Robles; Diego García Ordás; Enrique Alegre.

39 Title of the work: Boar spermatozoa classification using local invariant features and bag of words

Name of the conference: Jornadas de Automática

City of event: Vigo, Galicia, Spain

Date of event: 2012

María Teresa García Ordás; Laura Fernández Robles; Oscar García-Olalla Olivera; Diego García Ordás; Enrique Alegre.

40 Title of the work: Curvelet-Based Texture Description to Classify Intact and Damaged Boar Spermatozoa

Name of the conference: 9th International Conference, ICIAR

City of event: Aveiro, Portugal

**Date of event:** 2012

Victor González Castro; Enrique Alegre; Oscar García-Olalla Olivera; Diego García Ordás; María Teresa García Ordás; Laura Fernández Robles. "Image Analysis and Recognition, 7325, 448-455 SPRINGER VERLAG GMBH & CO.KG".

- 41 Title of the work:** Evaluation of segmentation methods applied to intact and damaged boar spermatozoon heads

Name of the conference: Jornadas de Automática

City of event: Vigo, Galicia, Spain

Date of event: 2012

Eduardo Fidalgo; Javier de Pedro; Laura Fernández Robles; María Teresa García Ordás; Enrique Alegre.

- 42 Title of the work:** SVM approach to classify boar acrosome integrity of a multi-features SURF description

Name of the conference: Jornadas de Automática

City of event: Vigo, Galicia, Spain

Date of event: 2012

Laura Fernández Robles; Oscar García-Olalla Olivera; María Teresa García Ordás; Diego García Ordás; Enrique Alegre.

- 43 Title of the work:** Vitality assessment of boar sperm using N Concentric Squares resized and Local binary pattern in gray scale images

Name of the conference: Jornadas de Automática

City of event: Vigo, Galicia, Spain

Date of event: 2012

Oscar García-Olalla Olivera; María Teresa García Ordás; Diego García Ordás; Laura Fernández Robles; Enrique Alegre.

- 44 Title of the work:** Vitality assessment of boar sperm using an adaptive LBP based on oriented deviation

Name of the conference: Asian Conference in Computer Vision Workshop

City of event: Daejeon, Republic of Korea

Date of event: 2012

Oscar García-Olalla Olivera; Enrique Alegre; Laura Fernández Robles; María Teresa García Ordás.

- 45 Title of the work:** A local invariant features approach for classifying acrosome integrity in boar spermatozoa

Name of the conference: III ECCOMAS thematic conference on computational vision and medical image processing (VIPIMAGE)

City of event: Olhao, Portugal

Date of event: 2011

Enrique Alegre; María Teresa García Ordás; Oscar García-Olalla Olivera; Víctor González Castro; Laura Fernández Robles. "Computational Vision and Medical Image Processing, 199-203, TAYLOR & FRANCIS GROUP, LLC".

- 46 Title of the work:** Acrosome evaluation of spermatozoa cells using SIFT and classical texture Descriptors

Name of the conference: Jornadas de automática

City of event: Sevilla, Andalucía, Spain

Date of event: 2011

Laura Fernández Robles; María Teresa García Ordás; Diego García Ordás; Oscar García-Olalla Olivera; Enrique Alegre.

- 47 Title of the work:** Adaptative filters evaluation for sharpness enhancement and noise removal

Name of the conference: Jornadas de automática

City of event: Sevilla, Andalucía, Spain



Date of event: 2011

Oscar García-Olalla Olivera; Diego García Ordás; María Teresa García Ordás; Laura Fernández Robles; Enrique Alegre.

48 Title of the work: Material surface characterization using Laws descriptors

Name of the conference: DAAAM International Symposium

City of event: Viena, Austria

Date of event: 2011

Sir Alexci Suarez Castrillón; Joaquín Barreiro; Enrique Alegre; María Teresa García Ordás; Oscar García-Olalla Olivera.

49 Title of the work: Surface roughness prediction from combination of cutting forces, turning vibrations and machining conditions using artificial neural networks

Name of the conference: IV Manufacturing Engineering Society International Congress (CSIF-MESIC)

City of event: Cadiz,

Date of event: 2011

Patricia Morala Argüello; Joaquín Barreiro; Enrique Alegre; María Teresa García Ordás; Oscar García-Olalla Olivera; Daniel González Madruga.

50 Title of the work: Video segmentation combining depth maps and intensity images

Name of the conference: Jornadas de automática

City of event: Sevilla, Andalucía, Spain

Date of event: 2011

Diego García Ordás; Oscar García-Olalla Olivera; Laura Fernández Robles; María Teresa García Ordás; Enrique Alegre.

51 Title of the work: Vitality assessment of boar sperm using NCSR texture descriptor in digital images

Name of the conference: Iberian Conference on Pattern Recognition and Image Analysis (IbPRIA)

City of event: Las Palmas de Gran Canaria, Canarias, Spain

Date of event: 2011

Enrique Alegre; María Teresa García Ordás; Víctor González Castro; S. Karthikeyan.

52 Title of the work: Words recognition using methods of word shape coding

Name of the conference: Jornadas de automática

City of event: Sevilla, Andalucía, Spain

Date of event: 2011

María Teresa García Ordás; Laura Fernández Robles; Oscar García-Olalla Olivera; Diego García Ordás; Enrique Alegre.

53 Title of the work: Adaptative texture description for semen vitality assessment

Name of the conference: Seminario Internacional de Procesamiento y Análisis de Imágenes Médicas (International seminar of medical images processing and analysis) (SIPAIM)

City of event: Bogota, Colombia

Date of event: 2010

Víctor González Castro; Enrique Alegre; Sir Alexci Suárez Castrillón; Oscar García-Olalla Olivera; María Teresa García Ordás.

54 Title of the work: Evaluation of mother Wavelet functions with statistical texture descriptors to classify boar sperm acrosome

Name of the conference: Seminario Internacional de Procesamiento y Análisis de Imágenes Médicas (International seminar of medical images processing and analysis) (SIPAIM)

City of event: Bogota, Colombia



Date of event: 2010

Enrique Alegre; Maribel González; Víctor González Castro; Tomás Alonso; Oscar García-Olalla Olivera; María Teresa García Ordás.

R&D management and participation in scientific committees

Scientific, technical and/or assessment committees

- 1** **Committee title:** CCSCS'2020: Citizen-Centric Smart Cities Services
Primary (UNESCO code): 120304 - Artificial intelligence
Secondary (UNESCO code): 120317 - Informatics
Affiliation entity: University of Minho **Type of entity:** University
City affiliation entity: Braga, Norte, Portugal
Start-End date: 22/06/2020 - 23/06/2020
- 2** **Committee title:** Editora del special issue "Artificial Intelligence in Public Health" de la revista International Journal of Enviroment Research and Public Health
Primary (UNESCO code): 120304 - Artificial intelligence
Affiliation entity: MDPI **Type of entity:** Editorial
Start date: 06/2020
- 3** **Committee title:** Reviewer Board en la revista Information
Primary (UNESCO code): 120304 - Artificial intelligence
Affiliation entity: MDPI **Type of entity:** Editorial
Start date: 06/2020
- 4** **Committee title:** Reviewer Board en la revista International Journal of Enviroment Research and Public Health
Primary (UNESCO code): 120304 - Artificial intelligence
Affiliation entity: MDPI **Type of entity:** Editorial
Start date: 06/2020

Organization of R&D activities

Title of the activity: Organizadora del XVII simposio CEA de control inteligente
Type of activity: Simposio
City convening entity: León, Spain
Start-End date: 27/06/2022 - 29/06/2022



Other achievements

Obtained grants and scholarships

Name of the grant: Ayudas para Financiar la Contratación Predoctoral de Personal Investigador

Aims: Pre-doctoral

Awarding entity: Junta de Castilla y León

Type of entity: Organismo Público

Conferral date: 03/10/2014

Duration: 2 years - 11 months - 27 days

End date: 30/09/2017

Entity where activity was carried out: Universidad de León

Faculty, institute or centre: Escuela de Ingenierías Industrial e Informática

Scientific societies and professional associations

Name of the society: Comité Español de Automática

Affiliation entity: Comité Español de Automática

City affiliation entity: Barcelona, Cataluña, Spain

Start date: 2011

Prizes, mentions and distinctions

- 1** **Description:** Mención especial TECNALIA por ser una de las mejores tesis con temáticas relacionadas con necesidades empresariales.

Awarding entity: TECNALIA CORPORACION TECNOLOGICA A I E

City awarding entity: San Sebastián, Spain

Conferral date: 27/06/2018

- 2** **Description:** DOCTOR ULE-TCUE

Awarding entity: Universidad de León

Type of entity: University

City awarding entity: León, Castilla y León, Spain

Conferral date: 10/07/2017