

AIR Institute

National Technology Centre

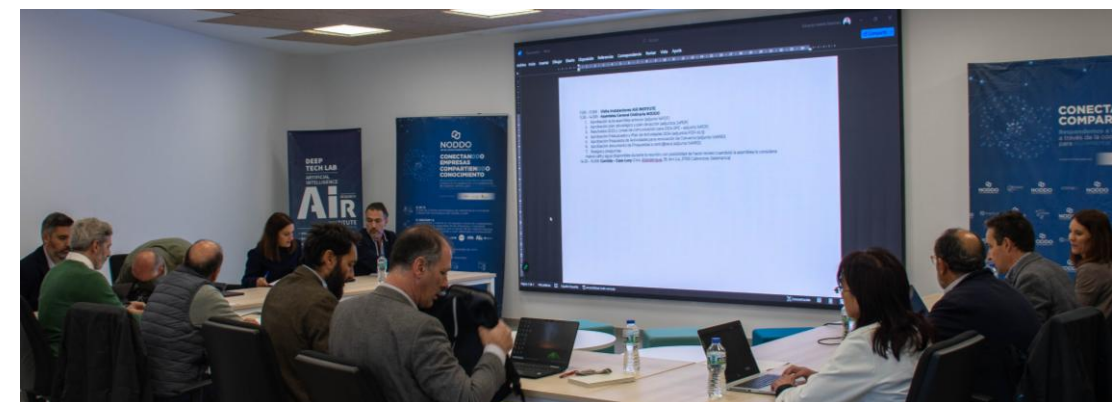
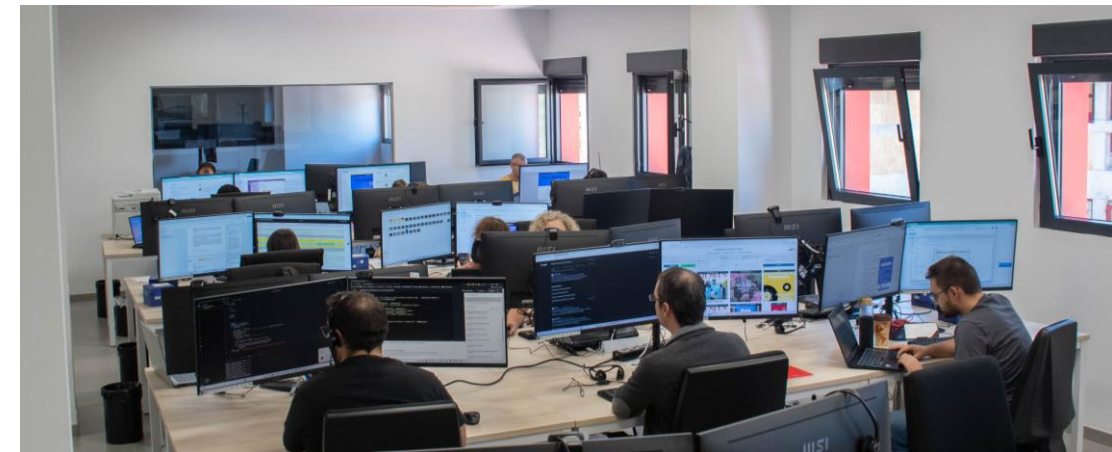
air-institute.com

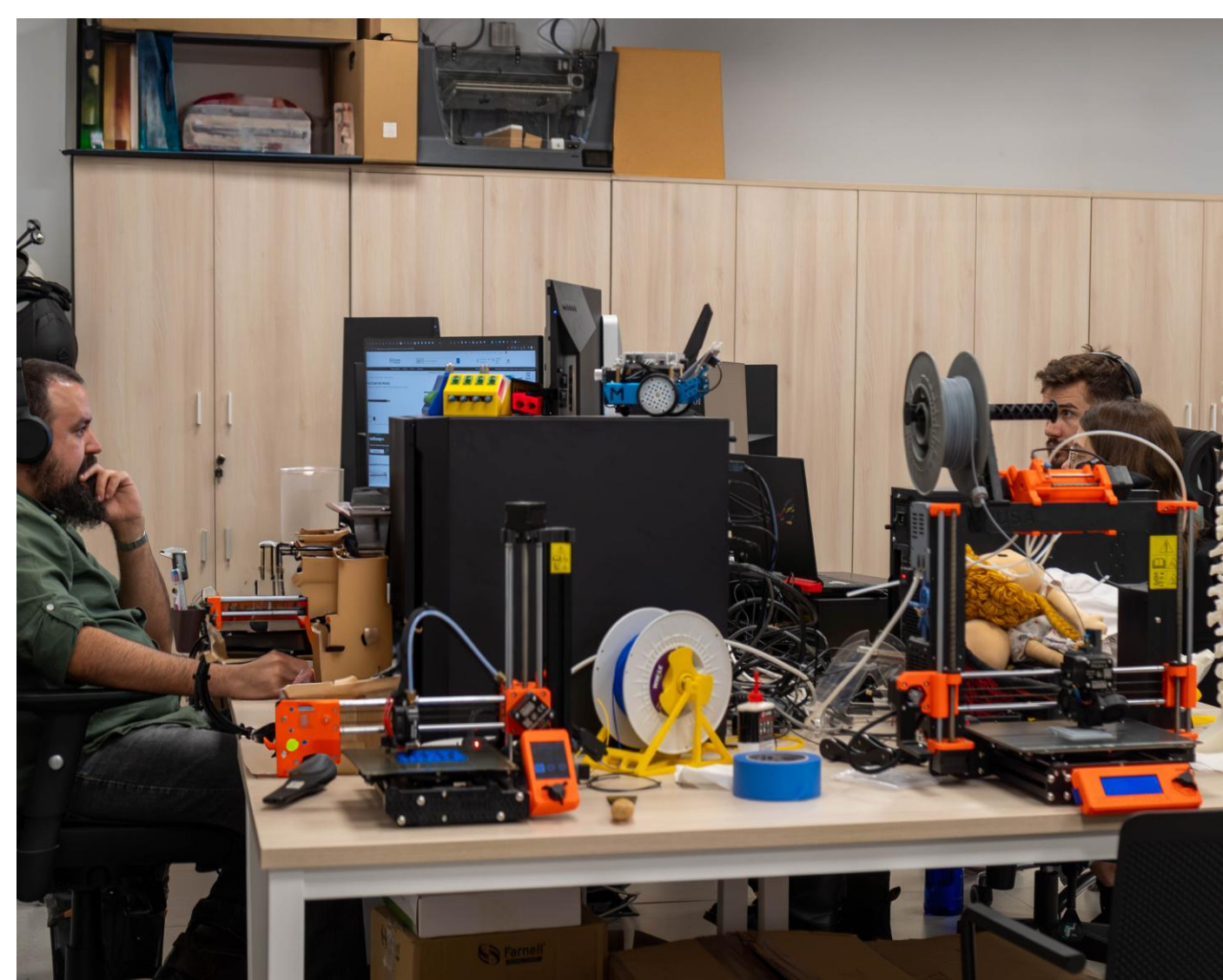
Air
INSTITUTE

AIR Institute

The **AIR Institute** is a private non-profit research organization, aimed at the promotion and development of scientific research in the field of computer science and artificial intelligence.

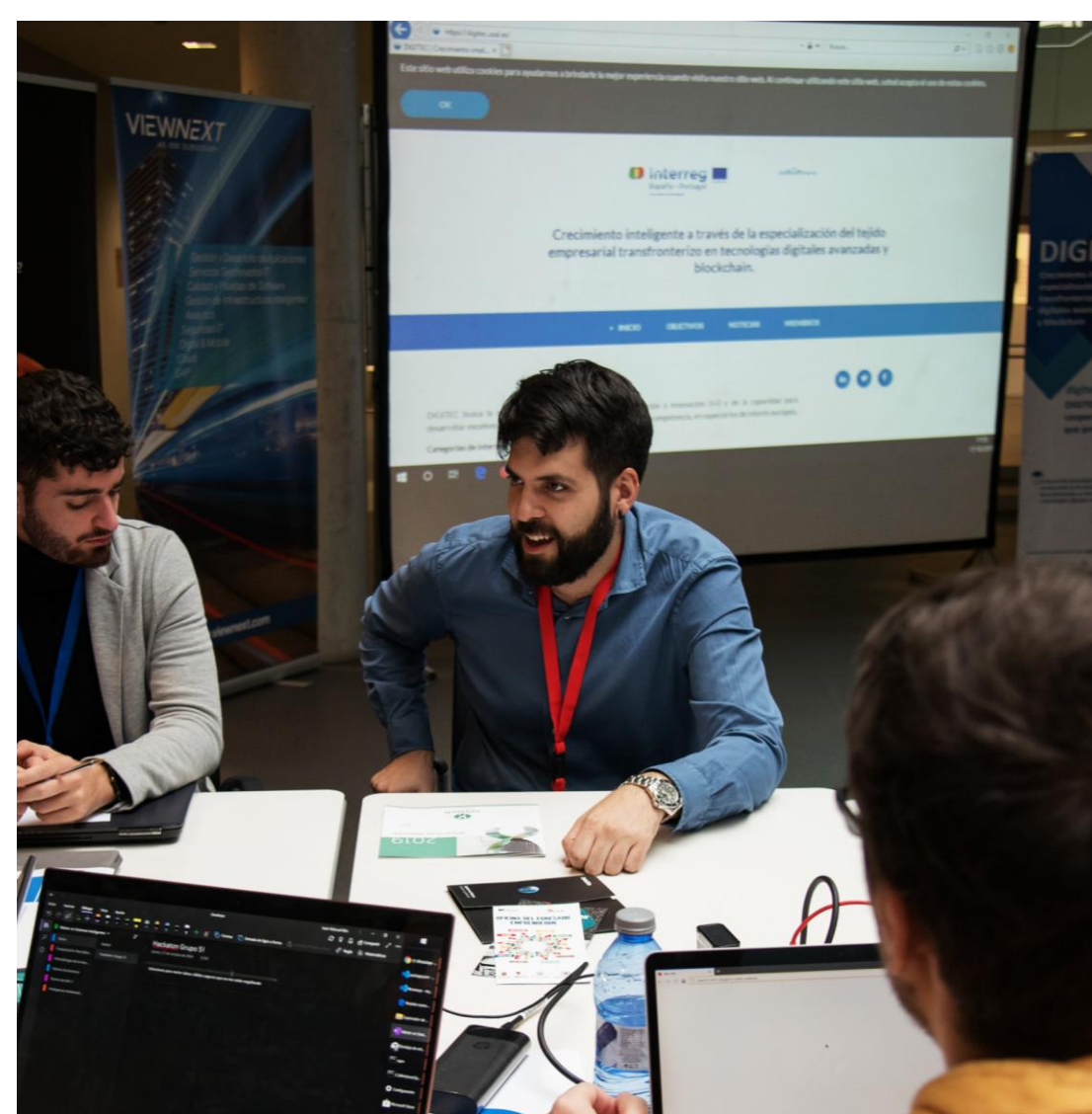
The AIR Institute comprises a multidisciplinary team of researchers who work to promote innovation in the field of information technology, computer science, artificial intelligence and information and communication technologies (ICT).





Infrastructure and resources

Internet of Things and Artificial Intelligence Center in Salamanca, with more than 820 m² equipped with cutting-edge technology and sustainable energy systems.



Human resources

More than 100 highly qualified professionals working on national and international projects.

OUR OBJECTIVES



Create an information society through the development of intelligent systems and advances in the field of computer science.



Promote and develop scientific research in the field of computer science and artificial intelligence.



Promote talent attraction and retention activities, within the ecosystem of technological actors in the geographical area of the institute.

VENUES



AIR Institute – Salamanca

Av. Santiago Madrigal 39, 37003,
Salamanca (Spain)

Phone: +34 614 193 783



AIR Institute - Valladolid

Parque Científico Universidad de Valladolid,
Edificio PCUVa, Módulo 117-118
Campus Miguel Delibes, Paseo de Belén 9ª,
47011, Valladolid (Spain)

Phone: +34 983 642 099



AIR Institute - Zamora

HUB de Innovación Tecnológico La Aldehuela.
Centro de Especialización en Espacio de Datos
Inteligente. Carr. de la Aldehuela, 23, planta 1,
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AIR Institute - Carbajosa de la Sagrada

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Sagrada, 37188, Salamanca (Spain)

Phone: +34 614 193 783

RESEARCH LINES

- Artificial intelligence
- Bioinformatics
- Computational creativity
- Cybersecurity
- E-health
- Energy
- Fintech
- Intelligent distributed systems
- Internet of things
- Robotics
- Smart cities
- Social computing
- Technology enhanced learning
- Blockchain
- Cybersecurity
- Deep learning
- Deep tech
- Natural language processing





AIR Institute Deep Tech Lab

Private research organization, aimed at the promotion and development of scientific research in the field of computer science and artificial intelligence

[READ MORE](#)

[WORK OPPORTUNITIES](#)

Member of:



Research Center powered by:



Coordinating:



PROJECTS

NOUS

FARMS4CLIMATE

DIGIS3

AIR-GENOMICS

AIR INSTITUTE ZAMORA

EL JAP

QUANTUM SHIELD

AIR SCITY

SALAMANCA TECH

SALUS

ALARAD

IA4BIRDS

CENTR@TEC

BioTeCare

dAIEDGE

CERTIFY

SHOPHIA

WeForming

GILL

CIBERIA

ARTOURIX

SMURF

SOIL

ARCADE

ROCCA

NOUS

NOUS will develop the architecture of a European cloud service that enables the use of computational and data storage resources from peripheral devices, as well as supercomputers, through the HPC (High-Performance Computing) network, and quantum computers.

[AIR Coordinator]

Total budget: €8,428,875.00 - Center budget: €596,750.00

January, 2024 - December, 2026



nous-project.eu

FARMS4CLIMATE

Smart governance and operational models for agroecological carbon farming.

[AIR Coordinator]

Funding: PRIMA Foundation (Call 2021 Section 1 Farming IA).

04/2022 – 03/2025



FARMS 4 CLIMATE

www.farms4climate.eu



DIGIS3

DIGIS3, Intelligent, Sustainable and Cohesive Digitalisation, is one of the 12 European Digital Innovation Hubs (EDIH) approved by the European Commission as a benchmark in digital innovation.

[AIR Coordinator]

Funding: Co-funded by the European Union (under grant agreement No 101083898, DIGITAL-2021-EDIH-INITIAL-01)

01/2023 – 12/2025



digis3.eu/en



AIR-GENOMICS

The aim of the project 'Explainable Artificial Intelligence for the Next Generation Sequencing (AIR-GENOMICS)' is to facilitate the performance of genomic analyses in the clinical setting based on artificial intelligence in the various phases of the NGS data analysis pipeline.

Funding body:

Instituto de Competitividad Empresarial de la Junta de Castilla y León (ICE) y el Fondo Europeo de Desarrollo Regional (FEDER)

October 2021 - June 2023



airgenomics.air-institute.com

Center of Specialization in Intelligent Data Space in Zamora

An essential outcome of the project is the creation of a laboratory in Zamora dedicated to data spaces and intelligent data management platforms. This center will facilitate the creation and experimentation with both commercial and open-source platforms for the storage, analysis, and processing of large volumes of data, crucial for training AI models.

Funding: 900,000.00€

September, 2024 - December, 2027



dataspace.air-institute.com/en

EL JAP

The Eljap! project aims to promote the technological ecosystem of Castilla y León by promoting an environment of excellence in the field of digital technology and especially everything related to video game development and animation.

October, 2023 - June, 2027



eljap.es

QUANTUM SHIELD

Quantum Shield emerges as the pioneering solution to protect smart manufacturing environments from the most advanced threats. This innovative project combines the best of post-quantum cryptography, quantum key distribution and quantum machine learning (QML) to address the challenges of the quantum era and generative artificial intelligence.

Funding: 471.220,01 €

June, 2024 - September, 2026



quantumshield.air-institute.com

AIR SCITY

The main objective of the AIR SCITY project is to research, develop and test an intelligent platform for efficient micro-territory management using innovative models and algorithms (to be researched and evaluated within the scope of this project) to improve the management of infrastructures, logistics, services, etc. both in normal situations and in exceptional conditions: disasters, epidemics, etc.

Funding:

Amount approved: 282.576,60 €.

Grant awarded: 266.527,50 €.

The logo for Air-Scity, featuring the word "Air" in a large, bold, black sans-serif font, followed by a hyphen and the word "Scity" in a smaller, teal-colored sans-serif font.

airscity.air-institute.com

SALAMANCA TECH

Tech is an initiative that seeks to promote innovation and technological development in the city of Salamanca. Its mission is to turn Salamanca into a benchmark in innovation, combining the pillars of science, sustainability, entrepreneurship, technology, logistics and health.

June, 2024 - September, 2026

SALAMANCA TECH



salamancatech.es

SALUS

The main objective of project SALUS is to improve knowledge and provision of services in Long- Term Care for elder and dependent people by means of highly interdisciplinary research. The areas involved include Digital Twins to represent of patients in LTC, sociology and gerontology to research on the specific needs, patient profiles and regulation in LTC, both formal and informal.

Funding: State Plan for Scientific and Technical Research and Innovation 2021-2023 / NextGenerationEU / PRTR.

October, 2022 - September, 2025



salus.air-institute.com



IA4BIRDS

Explainable AI platform for the prediction and protection of birds in wind farm sites.

Funding: PRTR 2021

09/2022 – 08/2025



ia4birds.air-institute.com



CENTR@TEC

Advanced Innovation Services
for SMEs.

Funding: Instituto para la
Competitividad Empresarial
(ICE)

10/2024 – 03/2027



centratec4.air-institute.com



BioTeCare

The BioTeCare Project aims to position Castilla y León as a national and international reference in life sciences and digital health innovation. Additionally, the project significantly contributes to the thematic priorities of the RIS3, addressing a key area such as data technologies in the health and social care sector.

Funding: Instituto para la Competitividad Empresarial (ICE)

01/2025 – 12/2026



dAIEDGE

The dAIEDGE Network of Excellence (NoE) seeks to strengthen and support the development of a dynamic European cutting-edge AI ecosystem under the umbrella of the European Lighthouse for AI and to sustain the development of advanced AI.

Funding: HORIZON-CL4-2022-
HUMAN-02-02

01/2023 – 12/2026



daiedge.eu

CERTIFY

Active security for IoT
connected devices lifecycles.

Funding: Horizon 2020
(HORIZON-CL3-2021-CS-01-
02, RIA – Research and
Innovation action), SERI
(Switzerland).

10/2022 – 09/2025



certify-project.eu



SHOPHIA

Advanced in-store federated-learning architecture to improve the customer experience in retail.

Total budget: 994 850.28 €

AIR Institute budget: 394 670.28 €

Funding: State Plan for Scientific and Technical Research and Innovation 2021-2023 / NextGenerationEU / PRTR.

10/2022 – 09/2025



shophia.air-institute.com



WeForming

Buildings as Efficient Interoperable
Formers of Clean Energy Ecosystems.

Funding: Horizon 2020 (HORIZON-CL5-2022-D4-02-04, IA – Innovation action).

10/2023 – 09/2026



weforming.eu



GILL

GILL the largest network of Living Labs (LL), will develop a pan-European collaboration and learning hub based on the LL principles to become the open innovation framework for all European actors for open gendered innovation.

Funding: HORIZON-WIDERA-2022-ERA-01

01/2023 – 12/2025



CIBERIA

Digitalisation and cross-border resilience through the promotion of a cyber-secure CENCYL area.

Funding: Interreg VI-A España-Portugal (POCTEP) 2021-2027

07/2023 – 06/2026



ciberia.usal.es

Interreg



Cofinanciado por
la Unión Europea
Cofinanciado pela
União Europeia

España - Portugal

ARTOURIX

Alert and monitoRing for TOURism
business Intelligence eXplained,
fuentes BOLD y Linked IoT Data
ambientales.

Funding: State Plan for Scientific and
Technical Research and Innovation
2021-2023 / NextGenerationEU /
PRTR.

09/2023 – 08/2026



SMURF

Sustainable Management models
and value chains for small Forests.

Funding: Horizon 2020 (HORIZON-CL6-2023-CircBio-01-12, RIA – Research and Innovation action).

01/2024 – 12/2027



smurfproject.eu/



SOIL

Manage an effective, agile, transdisciplinary, diffuse, open and fair one-stop shop structure to coordinate, support, expand and promote the network of 100 Soil Health Living Labs and Lighthouses (SHLL/LH) funded under the framework of the Soil Deal Mission and ensure its co-created user-centred, harmonized, reliable, impactful, replicable and sustainable leadership of the transition to healthy soils.

Cascade funding: Horizon 2020 (HORIZON-MISS-2022-SOIL-01-08, HORIZON-FPA HORIZON Framework Partnerships)

01/2024 – 12/2028

SOILL



ARQADE

Alliance of Technology Centres for Accessible Quantum Computing with Dual Applications in Defence and Strategic Sectors.

Funding: CDTI – Cervera Grants for Technology Centres 2025.

01/2026 – 12/2028



ROCCA

Operational Robotics for Quality Control, Inspection and Assisted Maintenance in the Defence Sector.

Application of advanced digital technologies to critical defence systems, strengthening the country's industrial and scientific capacity in a strategic area. Streamlining technology transfer and consolidating the foundations for a sustainable innovation ecosystem by promoting: Competitiveness, Technological sovereignty, Knowledge generation, Strengthening security and defence in the Industry 5.0 era.

Funding: CDTI – Cervera Grants for Technology Centres 2025.

01/2026 – 12/2029

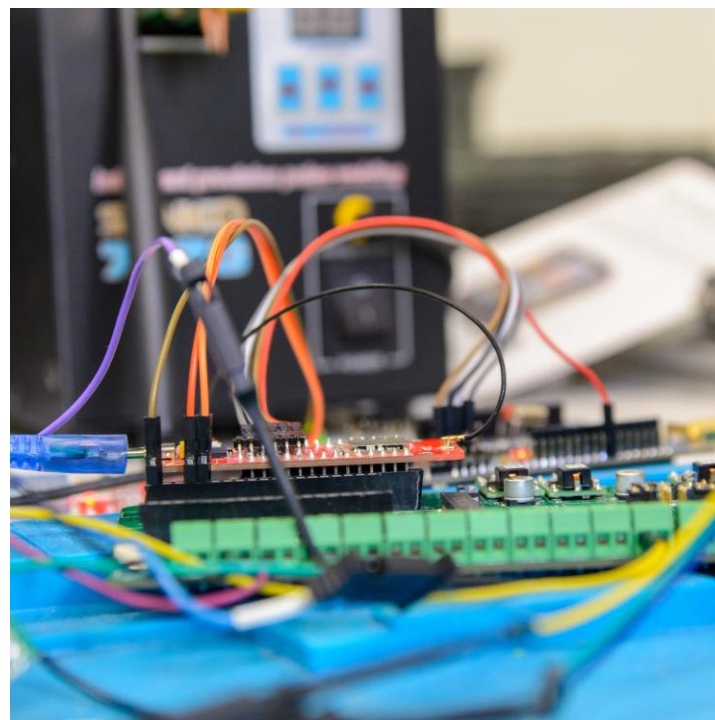
ROCCA



ACADEMIC RESEARCH

- Abbasi, M., Plaza-Hernández, M., Prieto, J., & Corchado, J. M. (2022). Security in the Internet of Things Application Layer: Requirements, Threats, and Solutions. *IEEE Access*, 10, 97197-97216.
- Alonso, R. S., Prieto, J., de La Prieta, F., Rodríguez-González, S., & Corchado, J. M. (2021, December). A Review on Deep Reinforcement Learning for the management of SDN and NFV in Edge-IoT. In *2021 IEEE Globecom Workshops (GC Wkshps)* (pp. 1-6). IEEE.
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- Alonso, R. S., Sittón-Candanedo, I., García, Ó., Prieto, J., & Rodríguez-González, S. (2020). An intelligent Edge-IoT platform for monitoring livestock and crops in a dairy farming scenario. *Ad Hoc Networks*, 98, 102047.
- Casado-Vara, R., Chamoso, P., De la Prieta, F., Prieto, J., & Corchado, J. M. (2019). Non-linear adaptive closed-loop control system for improved efficiency in IoT-blockchain management. *Information Fusion*, 49, 227-239.
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- Casado-Vara, R., Novais, P., Gil, A. B., Prieto, J., & Corchado, J. M. (2019). Distributed continuous-time fault estimation control for multiple devices in IoT networks. *IEEE Access*, 7, 11972-11984.
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- Chamoso, P., González-Briones, A., Rodríguez, S., & Corchado, J. M. (2018). Tendencies of technologies and platforms in smart cities: a state-of-the-art review. *Wireless Communications and Mobile Computing*, 2018.
- Corchado, J. M., Chamoso, P., Hernández, G., Gutierrez, A. S. R., Camacho, A. R., González-Briones, A., ... & Omatu, S. (2021). Deepint. net: A rapid deployment platform for smart territories. *Sensors*, 21(1), 236.
- González-Briones, A., Castellanos-Garzón, J. A., Mezquita Martín, Y., Prieto, J., & Corchado, J. M. (2018). A framework for knowledge discovery from wireless sensor networks in rural environments: a crop irrigation systems case study. *Wireless Communications and Mobile Computing*, 2018.
- Mezquita, Y., Gil-González, A. B., Martín del Rey, A., Prieto, J., & Corchado, J. M. (2022). Towards a Blockchain-Based Peer-to-Peer Energy Marketplace. *Energies*, 15(9), 3046.
- Sittón-Candanedo, I., Alonso, R. S., Corchado, J. M., Rodríguez-González, S., & Casado-Vara, R. (2019). A review of edge computing reference architectures and a new global edge proposal. *Future Generation Computer Systems*, 99, 278-294.
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***We drive
innovation in
Artificial
Intelligence and
technology***



THANK YOU

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