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# The ENAIRE Foundation announces the winners of its Aeronautical Awards

- The newly created Space Award has been presented to Alejandro Pastor Rodríguez for his Doctoral Thesis
- The Aeronautical Journalism Award was given to Josu García López for his report in El Correo
- The R&Dron Award was given to the CIFP Aguas Nuevas Vocational Training Centre in Albacete, in collaboration with the Instituto INSILLA in Prat de Llobregat
- The team consisting of Fateme Baneshi, Manuel Soler and Abolfazl Simorgh won the Luis Azcárraga Aeronautical Innovation Award
- The José Ramón López Villares prize for the best undergraduate and Master's thesis in the Air Navigation category went to María Florencia Lema Esposto for her Master's Thesis at UPM
- In the Airports speciality, Guillermo Silveira Relanzón was the recipient for his Master's Thesis at Alfonso X el Sabio University

**Madrid, 25 October 2023**

The panel of judges for the ENAIRE Foundation Awards, which this year mark their 28th anniversary, has announced the winners in the following aviation categories: Aviation Journalism Award, I+Dron Award, the newly created Space Award, Luis Azcárraga Innovation in Aviation Award, and José Ramón López

Villares Award (Bachelor's and Master's theses), in the fields of air navigation and airports.

This year, Airbus Spain again co-sponsored the R&Dron Award in order to associate this accolade with the latest developments in the aviation industry.

A total of 56 candidates were submitted for the various award categories this year.

The juries were made up of renowned professionals from MITMA, ENAIRE, Aena, the Air and Space Force, the ETSIAE and the Press Association, among others, who each year contribute their experience, dedication and professionalism to choose the best proposals.

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## Space Award

The Space Award, which seeks to incentivise and acknowledge work or studies that provide a unique and practical contribution that can be applied to aerial mobility, and to air and space transport, was presented for the first time. This prize is worth 10,000 euros.

In this first edition, four works were submitted, with the winner being Alejandro Pastor Rodríguez for his Doctoral Thesis entitled *Advanced observation correlation and orbit determination methods for the build-up and maintenance of a catalogue of space objects*, presented at the Carlos III University in Madrid.

The jury noted the quality and practical application of this work to advanced technological developments, which requires a high level of specialisation in the field that is beyond the reach of many experts. It also determined that the study can serve as a reference or inspiration for other researchers to develop future analyses that question, supplement or improve upon this work.

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## Aviation Journalism Award

Every year, this award recognises works of journalism that are disseminated in the press, radio, television, and on digital and online publications that are related to air transport and navigation, as well as those involving airport facilities and airport services in general. The winner is awarded €10,000.

Of the 14 works presented this year, the jury decided to award the prize to Josu García López for his report *La aviación se reinventa para no estrellarse* (Aviation reinvents itself to avoid crashing), published in El Correo newspaper.

The jury upheld this report as a magnificent example of new constructive or problem-solving journalism, as it not only raises a problem emphatically, but provides solutions accompanied by interesting illustrations.

## R+Dron Award

Presented annually, it recognises those technical works, studies, projects, papers or publications that make a unique contribution to innovation in the drone sector, in the fields of aircraft design and aircraft system technologies (including propulsion, communications, control, etc.), drone production, operation, and traffic management, as well as the development of new applications. The winner is awarded €10,000.

Yet again this year, the award is being co-sponsored by Airbus Spain, and the winner will be able to present the project to technical managers at the company. If the project interests them, they will consider prototyping it.

Four candidates were nominated this year, with the award going to the CIFP Aguas Nuevas Vocational Training Centre in Albacete, in collaboration with the Instituto INSILLA in Prat de Llobregat (Barcelona), for its work entitled *Diseño, construcción y ensayos de 4 prototipos de avión no tripulado (UAV) propulsados por pila de hidrógeno (Design, construction and testing of 4 unmanned aerial vehicle (UAV) prototypes powered by a hydrogen fuel cell)*.

Three companies in Madrid also collaborated in the development of the winning project: Omicron Ingeniería, Integración Tecnológica Empresarial and FRP Advanced Technologies.

The jury underscored the admirable training-company partnership, as well as the application of the evolution of aeromodelling towards drones, drawing on the experience of aeromodellists and clubs to build and fly the prototypes.

## Luis Azcárraga Innovation in Aviation Award

Presented annually, it acknowledges work, studies or projects that offer a major contribution to air transport in terms of planning and organisation, economic and administrative management, environmental impact and protection, as well as technological research and innovation. The winner is awarded €10,000.

Twelve works were submitted this year, with the jury presenting the award to the team consisting of Fateme Baneshi, Manuel Soler and Abolfazl Simorgh for their work entitled *Conflict assessment and resolution of climate-optimal aircraft trajectories at network scale*.

The jury valued the significant impact of this research on algorithms for planning climate-optimal aircraft trajectories at the network level, as well as the potential of applying them to reduce the carbon footprint of aviation, which is essential in the fight against climate change.

## José Ramón López Villares Award for Bachelor's and Master's theses

Presented annually to reward Bachelor's or Master's degree projects in Aeronautical and Aerospace Engineering, as well as in Civil Engineering, Structural Engineering (especially the branch of Roads, Canals and Ports), and Industrial and Telecommunications Engineering that are presented at any Spanish university and written in any of Spain's official languages or in English. A maximum of two prizes may be awarded every year, each one worth 3,000 euros.

This edition featured 22 nominees.

In the field of **air navigation**, the award was given to María Florencia Lema Esposto for her Master's degree entitled *Optimal Airspace Configuration based on State-Task Networks*, presented at the Advanced School of Aeronautical and Space Engineering of the *Universidad Politécnica de Madrid.*

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The jury highlighted the excellent structure and presentation of this work, which seeks to optimise the configuration of the number of controller work stations in a control room through an optimisation algorithm in order to deal with a problem in which the combinatorial explosion generates a very high number of possibilities to analyse.

In the **airports speciality,** Guillermo Silveira Relanzón was the recipient for his Master's Thesis entitled *Estudio de viabilidad del hidrógeno como combustible alternativo en el transporte aéreo. Caso concreto del Puente Aéreo Madrid-Barcelona* (Viability Study of Hydrogen as an Alternative Fuel in Air Transport. Case study of the Madrid-Barcelona Air Shuttle), presented at Alfonso X El Sabio University.

The jury noted the structure, analysis and depth of this study, whose aim is to determine the technical and economic feasibility of using hydrogen in international air transport, exploring the hydrogen production, storage and supply requirements needed to support the operations of a fleet operating between the airports of Madrid and Barcelona.

## About ENAIRE Foundation

Is a cultural institution of the Ministry of Transport, Mobility and the Urban Agenda that, in addition to managing, preserving and exhibiting the ENAIRE Collection of Contemporary Art, engages in a comprehensive annual programme of activities that focus on aeronautical art and culture. Notably, it is one of the institutions that currently provides the most support to photography through its annual prizes - which have become a benchmark for professional photographers - and by hosting exhibits.

It is the only foundation in Spain that combines the two seemingly disparate themes of art and aeronautical culture, bringing them together by undertaking a programme of activities that promote the study, research, knowledge and dissemination of aeronautical culture, integrating history and modernity to raise awareness of the world of aviation in our country.

The Naves de Gamazo are the first permanent home of the ENAIRE Collection of Contemporary Art, an example of collaboration between government agencies that was made possible thanks to the partnership and joint efforts of the Ministry of Transport, Mobility and the Urban Agenda (MITMA), the

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Government of Cantabria, through the Office for Culture, Tourism and Sport, and the Port Authority of Santander, which share the operating expenses of the centre in order to ensure the present and future viability of this cultural project.

## About ENAIRE

ENAIRE is the air navigation service provider in Spain.

As a company of the Ministry of Transport, Mobility and the Urban Agenda, it provides en route control services for all flights and overflights from five control centres in Madrid, Barcelona, Seville, Canary Islands and Balearics, as well as approach services to every airport in the country.

In addition, 46 airports receive ENAIRE's communication, navigation and surveillance services, and 21 airports, including the country's busiest, rely on its aerodrome control services.

ENAIRE is Europe's fourth largest air traffic manager and participates in the A6 Alliance, a coalition of air navigation providers responsible for over 80% of European air traffic, and which is seeking to modernise the air traffic management system. It is also a member of other international alliances promoting the Single European sky, such as SESAR Joint Undertaking, SESAR Deployment Manager, iTEC and CANSO.

ENAIRE, as the entity appointed by the Ministry of Transport, Mobility and Urban Agenda to implement the U-space system in Spain, will be the provider of the Common Information Services (CIS), which are essential for administering U-space services to drones and Urban Air Mobility, in interaction with local air traffic control services, so that all types of aircraft can fly safely in the same airspace.

ENAIRE has received the highest score in Europe on the aviation safety key performance indicator. It has also been awarded the EFQM 500 Seal for its safe, efficient, innovative and sustainable management of air navigation services.

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