

The "Aracnocóptero" begins to carry out inspections of wind turbines worldwide.

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The aircraft of the company Arbórea, of the Scientific Park of the University of Salamanca, offers from today the first course of aerial inspection of windmill blades.

José Pichel Andrés/DICYT. Based on the research of the University of Salamanca and the investment and effort of an entrepreneurial company, the 'Aracnocóptero' has already become the paradigm of what can transfer knowledge between University and business and innovation. This small aircraft of the company Arbórea has managed to get the attention of the international wind sector and this spring will begin to perform inspections of the blades of wind turbines worldwide, as announced this afternoon by the company Arbórea at the opening of its first 'Course of aerial inspection of wind turbine blades'.

In statements collected by DiCYT, Carlos Bernabéu, CEO of Arbórea, recalled in this act that the 'Aracnocóptero' is the result of four and a half years of I+D+i by his company without having received financial support and that the current Model, called EOL6.2, responds specifically to the demands of the wind sector, which needs to inspect the defects that over time occur in the blades of windmills and that so far has to face large expenses to do so with cranes and equipment vertical work humans who pick up.

The new aircraft allows this inspection to be carried out much cheaper and also more efficiently, since the appropriate software and hardware has been created for it. In addition, it has been another Salamanca company that has been responsible for developing in part that computer work, Flag Solutions, which this afternoon was represented by Alberto Gutiérrez. "Carlos Bernabéu has that point of madness that cannot miss any entrepreneur", he said in his speech, pointing out other uses of the device, such as crop control or energy efficiency of buildings.

Although the application that is more advanced outside the mill inspection is the military. In that sense, Arbórea has worked alongside the BISITE research group of the University of Salamanca, which has been involved in the project since its inception. Juan Manuel Corchado, leader of this group and dean of the Faculty of Sciences, has indicated that the protection of troops that carry out dangerous missions is one of the possibilities of this aircraft and stressed that it is "a product of research that has come together".

Military interest

Precisely, for that military interest, the inaugural conference of the course has been delivered by Lieutenant Colonel of Aviation Emilio García Herrera, who has focused on the world of UAVs (unmanned aerial vehicle). According to its creators, the 'Aracnocóptero' has many advantages over most of these devices, especially because of the versatility it offers, its low weight but great capacity to load instruments such as cameras or sensors and its manageability.

A development with so many possibilities has focused for the moment on the wind energy sector thanks to a meeting of investors organized by the ADE, Investment and Services Agency of Castilla y León, in which Arbórea began to collaborate with the company of Altertec Renovables maintenance, of the Enerpal group.

Tests on the largest wind turbine in the world

Recently, it has photographed in detail the blades of the largest land wind turbine in the world, an experimental phase prototype that is owned by Gamesa and is 180 meters high. In addition, the test was performed in very hard wind conditions, which would not have supported most of the UAVs. However, the Arbórea apparatus made a detailed mapping of the gigantic shovels of more than 60 meters, which proves its possibilities. Those attending the event could see a spectacular video with these images.

With this background, the company of Carlos Bernabéu has become a reference for the Science Park in which it sits, serving as a guide for young entrepreneurs with less experience, as assured by José Miguel Sánchez Llorente, managing director of the Park.

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