

# The Aracnocóptero, Built for Wind Turbine Inspection, at the Most Important Wind Energy Conference

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REVE

Environmentally responsible businesses like terrestrial and maritime wind farms are very interested in the aircraft designed in Salamanca for wind turbine blade inspection.

The company, Arbórea, based out of the University of Salamanca's Science Park is presenting its 'aracnocoptero' at HUSUM WindEnergy, the most important international fair in the Wind Energy sector, from the 18<sup>th</sup> to the 22<sup>nd</sup> of September, in the city of Husum, towards the North of Germany. The aircraft designed by Salamanca-based researchers is intended for the inspection of wind turbine blades and is catching the attention of environmentally responsible businesses like terrestrial and maritime wind farms.



Carlos Bernabéu, the Head of Arbórea, explained to DiCYT that the EoL6 model aircraft "is being well-received" in this event which takes place every two years, principally because, "it reduces wind turbine downtime and the costs of inspection."

The companies have to revise the condition of the blades quite often, since with the passage of time they can develop fissures or deterioration

which may require replacement. When an emerging imperfection is detected early, the expensive replacement of the blade can be avoided. The inspection operation that is carried out through cranes and vertical work teams isn't cheap either. Additionally, the crane option is not possible with marine wind farms, which are increasingly more abundant in Northern Europe.

That's why the idea of using a small unmanned craft equipped with cameras for observation is such an interesting solution, principally because it doesn't just take the pictures, the platform includes software in order to interpret the images and detect deterioration.

In order to adapt the 'aracnocóptero' to the inspection of wind turbines, Arbórea works with the support of the companies Altertec and Enerpal. The leadership of Arbórea is also open to enable the small aircraft with characteristics for other uses; it can be equipped with many different types of cameras, sensors, and accessories in line with whatever its purpose is.

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