

FICHA DOCTORADO UPV/EHU-TECNALIA

División de Negocio Área de Negocio	INDUSTRIA Y TRANSPORTE Aeroespacial
Codirector/a de tesis TECNALIA Director/a tesis UPV/EHU Programa de Doctorado	Joseba Lasa

DESCRIPCION

Título: Development of advanced control algorithms for the electric aircrafts of the future / Desarrollo de algoritmos de control avanzados para las aeronaves eléctricas del futuro.

Descripción corta: TECNALIA ELECTRIC AIRCRAFT Lab (TEA) works to foster the welfare of society. For that purpose, we are setting up a group involving different areas of expertise devoted to devising the safer and more ecological air transport of the future.

This grant focuses on the development of new advanced control algorithms to lay the foundation for an essential development topic (aircraft dynamics, cooperative control or fleet control and safe communications), contributing to new solutions that produce added value against the current state of the art. This grant encompasses a scientific and an experimental part, allowing to safely test the advanced control algorithms on small-size aircraft or aerial platforms.

Descripción larga:

TECNALIA ELECTRIC AIRCRAFT Lab (TEA) works to foster the welfare of society by means of a safer and more ecological air transport.

The boom of electric-propulsion-based new innovative aircraft architectures is oriented towards the transportation of goods, people or even services and will be integrated into the future Urban Air Mobility. This, along with a global trend shared with different countries around the world to facilitate the validation of concepts by means of flying prototypes, creates an unbeatable context for the development and research on the electric sustainable and safe air transport of the future.

For that purpose, we are setting up a group involving different areas of expertise devoted to devising the air transport of the future.

The Ph.D. student will enter this team, executing her/his duties next to the researchers of the TEA within a multicultural, dynamic and enriching work environment.

We're a highly-qualified team that's passionate about what it does and where it wants to go, and you can expect to work in a start-up like atmosphere and performing tasks that are diverse and enriching by nature.

This grant focuses on the development of new advanced control algorithms to lay the foundation for an essential development topic (aircraft dynamics, cooperative control or fleet control and safe communications), contributing to new solutions that produce added value against the current state of the art.

This grant encompasses a scientific and an experimental part, allowing to safely test the advanced control algorithms on small-size aircraft or aerial platforms.

REQUISITOS/PERFIL del doctorando:

- **Titulación y especialidad:** Degree and master: Industrial Engineer, Control Engineer, Computer Engineer, Computer Science, Physicist, Mathematician or related.
- **Idiomas:** English.
- **Informática:** Linux, Matlab/Simulink.
- **Se valorará:** Previous experience of the applicant in the topics of the thesis (to master level). Knowledge of traditional and machine-learning-based control strategies, as well as automatic learning, will be positively valued. Proactivity, critical analysis and team and individual working skills will be an advantage. Curiosity for learning and the capability of approaching new complex problems with interest and without fear are the most valued assets.