




## Company Description

Tecnalia Corporation has been set up as a multidisciplinary Technology Corporation, of a private and independent nature, with the mission to contribute value and wealth to the society in general, and to the business base in particular, through research, technological development and innovation in an international context. The Corporation offers the people comprising it a framework for competence and professional development by generating opportunities for their professional future. Shared knowledge, making use of the potential and diversity of an eminently creative, innovative, and professional group are the principles underpinning our culture and values.

## Information

 Deadline: 2019-06-27  
 Category: Business  
 Province: Gipuzkoa

 Country: Basque Country  
 City: Donostia - San Sebastian

## Company

Tecnalia Research and Innovation



## Main functions, requisites & benefits

### Main functions

In TECNALIA's TEA (Tecnalia Electric Aircraft) group, our mission is to promote the welfare of society through a greener and safer air transport. Currently there is a relevant boom in the development of different architectures of innovative aircraft based on electric propulsion (transport of goods, people, services), which has been facilitated by a reform of the aeronautical legislation that allows greater ease to fly and validate prototypes. This situation is offering an unbeatable context for the development of different technologies that allow the development of the sustainable and safe air transport ecosystem of the future. In the TEA group we want to position ourselves as a leader in the development of technologies that allow the development of a sustainable, green and safe air transport, and for this we are completing our multidisciplinary development group with which we want to devise the air transport of the future. The selected person will be integrated into this research group, and will have the opportunity to work in a team with great projection and national leader in the subject, in a multicultural, dynamic and enriching work environment. At a scientific-technological level, the work will focus on the development of advanced control algorithms in different lines of development, which will allow laying the foundations in different crucial development topics such as aircraft dynamics, cooperative control or estimation or perception algorithms. The development of these lines will be led by the selected person, with the help of members of the TEA and doctoral students.

### Requisites

We look for a profile that meets the following requirements:

- Degree and Specialty: Doctorate in Industrial Engineering, Control Engineering, Computer Engineering, Telecommunications Engineering, Electronic Engineering, Physics, Mathematics or related.
- Languages: Proficiency in spoken and written English.
- Computing: Matlab / Simulink, C ++ or programming knowledge in other languages.

The following will be valued: Candidate's previous training in advanced control algorithms (at Master's level or similar), and particularly the knowledge of control strategies, both traditional and based on machine learning or automatic learning, as well as the modelling of complex plants and their real-time simulation with rapid prototyping platforms. A high proactivity, capacity for critical analysis and work will be valued both independently and as a team, but above all what we value the curiosity for knowledge and the ability to tackle complex problems with interest and without fear. The experience in communications RS485, CAN, ModBus, Arinc 429 will be valued, and also experience in regulations applicable to the aeronautics or automotive sector (IEC-SIL, ISO-ASIL, RTCA-DO-254, RTCA-DO-178). The experience in research projects, projects of the European framework program, will also be valued positively. Minimum experience: A profile with proven knowledge and experience is sought in the development of advanced control algorithms (robust, predictive MPC, LQR, IBC,...) and their implementation in real applications. Knowledge in development of controllers using advanced techniques of rapid prototyping on real-time platforms, dSpace PXI or equivalent and implementation and validation on DSP, microcontroller and FPGA.