

Internal Research Fellow (PostDoc) in Orbital Robotics

Job Req ID: 12421

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Vacancy Type: Internal Research Fellow

Date Posted: 26 April 2021

Research Fellowship Opportunity in the Directorate of Technology, Engineering and Quality.

ESA is an equal opportunity employer, committed to achieving diversity within the workforce and creating an inclusive working environment. For this purpose, we welcome applications from all qualified candidates irrespective of gender, sexual orientation, ethnicity, beliefs, age, disability or other characteristics. Applications from women are encouraged.

This post is classified F2.

Location

ESTEC, Noordwijk, The Netherlands

Description

The Internal Research Fellow will be based in the Automation and Robotics Section, Mechatronics and Optics Division, Mechanical Department, Directorate of Technology, Engineering and Quality.

The Automation and Robotics Section, located at ESTEC, the technical heart of ESA, has three labs with corresponding working groups: Orbital Robotics/GNC, Planetary Robotics, and Human-Robot Interaction.

This position is for the Orbital-Robotics/GNC lab. The lab provides support to all ESA activities in On-orbit Servicing (OOS), On-orbit Assembly (OOA), On-orbit Manufacturing (OAM), and Active Debris Removal (ADR).

The team you will be working with is made up of mechanical, electrical, control and software engineers. Our equipment consists of specialised software for analysis, and of both commercial and in-house industrial components. Our goal is to validate concepts, methods, hardware and software in order to implement OOS, OOA, OAM and ADR missions.

More specifically, during this research fellowship, the lab will be assisting with the review and validation activities of the ADRIOS mission.

The ADRIOS mission will, for the first time, demonstrate active debris removal by capturing and de-orbiting an ESA satellite. A dedicated spacecraft will, by means of robotics interfaces, capture an item of debris, secure it to itself and thrust it into a re-entry trajectory.

While the ADRIOS spacecraft will be developed by an industrial team contracted by ESA, review of the concept, of the design and of the validation/verification activities will be performed by ESA with considerable involvement by the Automation and Robotics Section.

You will contribute to the review activities by independently performing analysis and test activities contributing to the success of ADRIOS.

Interested candidates are encouraged to visit the ESA website: www.esa.int

Field(s) of activity/research

Robotics, teleoperation, human-robot interaction, human-computer interaction, mechatronics, computer science, computer vision, ergonomics, user studies, and control.

Technical competencies

Ability to conduct research autonomously
Breadth of exposure coming from past and/or current research/activities
Research/publication record
Knowledge relevant to the field of research
General interest in space and space research
Ability to gather and share relevant information

Behavioural competencies

Result Orientation
Operational Efficiency
Fostering Cooperation
Relationship Management
Continuous Improvement
Forward Thinking

Education

You should have recently completed, or be close to completion of, a PhD in robotics. Preference will be given to candidates awarded their doctorate within the last five years.

Additional requirements

The working languages of the Agency are English and French. A good knowledge of one of these is required. Knowledge of another Member State language would be an asset.

Other information

For behavioural competencies expected from ESA staff in general, please refer to the [ESA Competency Framework](#).

The Agency may require applicants to undergo selection tests.

In addition to your CV and your motivation letter, please add your proposal of no more than 5 pages outlining your proposed research in the "additional documents" field of the "application information" section.

At the Agency we value diversity and we welcome people with disabilities. Whenever possible, we seek to accommodate individuals with disabilities by providing the necessary support at the workplace. The Human Resources Department can also provide assistance during the recruitment process. If you would like to discuss this further please contact us at contact.human.resources@esa.int.

Please note that applications are only considered from nationals of one of the following States: Austria, Belgium, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, the Netherlands, Norway, Poland, Portugal, Romania, Spain, Sweden, Switzerland, and the United Kingdom. Nationals from Latvia and Slovenia, as Associate Member States, or Canada as a Cooperating State, can apply as well as those from Bulgaria, Cyprus, Lithuania and Slovakia as European Cooperating States (ECS).

Priority will first be given to candidates from under-represented Member States.

In accordance with the European Space Agency's security procedures and as part of the selection process, successful candidates will be required to undergo basic screening before appointment