

Job Title: Intern in the Exploration Group

Req ID 8851 - Posted 11/10/2019



EUROPEAN SPACE AGENCY

Internship Opportunity in the Directorate of Human & Robotic Exploration Programmes.

ESA is an equal opportunity employer, committed to achieving diversity within the workforce and creating an inclusive working environment. Applications from women are encouraged.

Post

Intern in the Exploration Group

Location

EAC, Porz-Wahn, Germany

Our team and mission

Under the direct authority of the Director of Human and Robotic Exploration Programmes, the Leader of the Exploration Group shall:

- Coordinate the technical and programmatic content of the overall European Exploration Envelope Programme as well as legacy/precursor programmes;
- Establish and agree with D/HRE the financial structure of the programme and financial sub-allocations to the programme's main activities as well as the Exploration Programme Work Plan and its periodic updates;
- Ensure the implementation and monitoring of the ESA Procurement and Industrial Policy in regard to Geographical Return and industrial completion;
- Coordinate export control issues, working in close cooperation with D/IPL, related to the implementation of HRE managed programmes, and ensure regulations and directives of the ESA Security Office are implemented within HRE;
- Ensure the maintenance and coordination of the ISS strategic plan, as defined by D/HRE and supported by inputs from other organisational units in the Directorate and safeguarding an integrated approach across all ISS activities;
- Coordinate and ensure successful execution of all mission system and technology studies for human and robotic exploration, whether funded via the mandatory or optional programmes of ESA. Day-to-day delivery of such programmes may be managed within HRE-X, other teams within HRE or through other Directorates;
- Manage the development through to flight demonstration of exploration technologies needed for future application, including demonstrators aboard the ISS or other platforms and commercialised exploration products;
- Interface with the NASA ISS Programme and other NASA Managers for negotiations of Technical Understandings as well as represent ESA at the ISS Partner Multilateral Space Station Control Board (SSCB);
- Chair the Exploitation Management Board (EMB) in accordance with its Charter, ensuring that ISS Programme change proposals are responded to in a correct and timely manner.

The Leader of the Exploration Group is supported by the:

- ExPeRT Team (HRE-XE)
- Exploration Systems Team (HRE-XS)
- ESA Houston Team (HRE-XH)

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

Internship activities and learning areas

1) Topic 1:

Spaceship EAC: The Directorate of Human and Robotic Exploration (D/HRE) is the main ESA entity in charge of supporting and coordinating efforts towards the current and the future endeavours of human spaceflight. The exploration activities are part of the strategic plans in securing a central role for Europe with respect to the global initiatives. The European Exploration Envelope Programme (E3P) is integrating the ESA activities in this field to ensure a single exploration process. The strategy includes three destinations where humans will work with robots to gather new knowledge: Low Earth Orbit (LEO), the Moon, and Mars.

The “**Spaceship EAC**” initiative is investigating low Technology Readiness Level (TRL) technologies for supporting the future cislunar space mission as well as surface activities on the Moon as part of the Exploration Preparation, Research and Technology (ExPeRT) team. This multidisciplinary, innovation-driven team composed by researchers, graduate and undergraduate students is based at the ESA European Astronaut Centre (EAC). The mission statement of “Spaceship EAC” is centered on three main pillars: **enhance, enable and inspire**. The founding idea behind this initiative is indeed to enhance the capabilities of EAC via exploiting the spaceflight experience of the centre to develop and validate new operational concepts and valuable technologies in support of lunar human exploration scenarios. A pragmatic and research focused approach is adopted and knowledge acquired is disseminated within ESA and the relevant scientific community.

The main areas into which the initiative is currently active are: energy production and storage; radiation shielding; In Situ Resource Utilization (ISRU), materials and additive manufacturing; exercise hardware and countermeasure concepts; simulations, virtual reality/mixed reality and analogues; robotics and human factors; life support and habitability. We are continually looking for innovative interns with skills or interests in these areas to join the Spaceship EAC team.

For detailed information, please click here::

https://www.esa.int/About_Us/EAC/Internship_opportunities_at_the_ESA_European_Astronaut_Centre

Competencies

Communication
Continuous Learning
Cross-Cultural Sensitivity
Self Motivation
Teamwork

Education

Applicants should preferably be in their final or second to last year of a University course at Masters Level (or equivalent) in a technical or scientific discipline.

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 closing date for applications is 30 November 2019.

If you require support with your application due to a disability, please email 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 Slovenia, as an Associate Member, or Canada as a Cooperating State, can apply as well as those from Bulgaria, Cyprus, Latvia, Lithuania and Slovakia as European Cooperating States (ECS).