

# Job Title: Internal Research Fellow (PostDoc) in Future Human Exploration Technologies

Req ID 2541 - Posted 10/10/2017



## EUROPEAN SPACE AGENCY

Research Fellowship Opportunity in the Directorate of Human Spaceflight and 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

#### Internal Research Fellow (PostDoc) in Future Human Exploration Technologies

This post is classified F1.

### Location

ESOC, Darmstadt, Germany

### Description

The Internal Research Fellow will be based at the European Astronaut Centre in Cologne, Germany.

The European Astronaut Centre's tasks are centered around the "human" component of human spaceflight: astronaut selection, training, medical support and surveillance, as well as support of astronauts and their families during preparation for and during while on space missions to the International Space Station (ISS).

In order to make the operational experience of EAC available also to other ESA activities, in particular for the preparation of human exploration, EAC is will establishing a new lunar analogue facility which will allows for the demonstration of human exploration enabling technologies. One aspect of this facility is the implementation of a renewable stand-alone power system to power elements of the facility (e.g. an analogue habitat).

This position is made available by the Italian Space Agency (ASI) as part of the ESA-ASI integrated team. Interested candidates are highly encouraged to visit the ESA website: [www.esa.int](http://www.esa.int)

### Field(s) of activities/research

The Research Fellow will be a part of the Spaceship EAC team. The Spaceship EAC team is composed of Research Fellows, Young Graduate Trainees and university interns performing their final year projects within the fields of research and development indicated below. The postholder will mentor some university students and assure an appropriate level of research to be compliant with their university requirements.

The postholder will also be working on the following further activities:

- Performing applied research in the area of energy systems, specifically topics aligned with energy provision for human exploration scenarios. Practical projects supporting the analogue facility are particularly encouraged.
- Assuring that the research is coordinated and aligned with
  - a. The European Space Exploration Technology Roadmap;
  - b. Currently discussed lunar exploration scenarios and related logistical constraints;
  - c. Relevant on-going R&D activities at ESA or funded by ESA;
  - d. Commercially available technologies and components;
- Helping to identify partners in ESA, industry and academia that are interested in contributing to or using the new analogue facility;
- Actively participating in conferences and meetings to share and promote his/her knowledge.

- Periodically report to the Italian Space Agency about the performed activities.

## Technical competencies

Knowledge relevant to the field of research  
Research/publication record  
Ability to conduct research autonomously  
Ability to gather and share relevant information  
Proficiency in the use of Microsoft Office

## Behavioural competencies

Communication  
Self Motivation  
Problem Solving  
Cross-Cultural Sensitivity  
Results Orientation

## Education

Applicants must have completed their PhD (or equivalent) studies in engineering or a related field that is relevant for the above fields of activity. Preference will be given to applications submitted by candidates within five years of receiving their PhD.

## Additional requirements

Applicants must have research experience in at least one of the following domains: lunar research, lunar analogues, energy systems, In-Situ Resource Utilization (ISRU), human space flight operations and/or technology.

The working languages of the Agency are English and French. A good knowledge of English is required for this post. As the position is sponsored by the Italian Space Agency (ASI), Italian language knowledge at C1 level of the Common European Reference Framework for Languages (CERF) is required. Knowledge of other member state languages is considered 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.

**The closing date for applications is 07 November 2017.**

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. Candidates are asked to arrange for 3 reference letters, to be sent by the referees themselves, before the closing date to [temp.htr@esa.int](mailto:temp.htr@esa.int). Please ensure your name is mentioned in the subject of the e-mail.

If you require support with your application due to a disability, please email [contact.human.resources@esa.int](mailto:contact.human.resources@esa.int).

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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, the United Kingdom and Canada and Slovenia as well as Bulgaria, Cyprus, Latvia, Lithuania, 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