

Job Title: I-HAB Environmental Control Life Support System Engineer

Req ID 10283 - Posted 20/07/2020



EUROPEAN SPACE AGENCY

Vacancy 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

I-HAB Environmental Control Life Support System Engineer

This post is classified A2-A4 on the Coordinated Organisations' salary scale.

Location

ESTEC, Noordwijk, The Netherlands

Description

The I-HAB ECLS System Engineer, in the I-HAB Engineering Team, Gateway I-HAB Team, Lunar Exploration Group, Directorate of Human and Robotic Exploration.

You will report to the I-HAB Engineering Team Leader.

The Gateway is a small space station that will orbit the Moon in a near-rectilinear halo orbit (NRHO) and will be developed by the ISS Partners. As part of the Gateway Partnership, ESA will provide two elements: the International-HABitation module (I-HAB) and the European Systems Providing Refuelling, Infrastructure & Telecommunications (ESPRIT).

I-HAB is a pressurised module, part of the Cislunar Gateway programme, capable of hosting crew, providing accommodation for equipment and storage, as well as docking ports and resources for visiting vehicles. It will support pressurised and unpressurised utilisation (science and technology) and provide operation points for the external robotic arm.

For programmatic reasons, it will include hardware provided by NASA, CSA and JAXA, the latter providing ESA with key equipment and subsystem design of the I-HAB Environmental Control Life Support System (ECLSS).

In this context, you will have responsibility for the definition and implementation of system aspects related to environmental control for the crew and for the execution of the experimental campaign, acting as a link between JAXA and the industrial prime.

You may be requested to support other Human Space Exploration activities in the area of environmental and life support system control.

Duties

The main duties cover:

- performing system engineering activities related to I-HAB environmental and life support system control, including active coordination with JAXA (as subsystem provider), NASA (as Gateway Life support system integrator) and industry throughout the design, development, verification and operational phases;
- acting as the ESA point of contact in the Gateway (NASA) ECLSS working group(s);
- acting as the ESA book captain for the ESA/JAXA I-HAB ECLSS requirements specification development, maintenance and verification;
- overseeing the JAXA ECLSS contribution development and proactively working on ECLSS risks, issues resolution, and technological advancements that could affect I-HAB performances, schedule and costs;
- overseeing industry procurement of all ECLSS equipment not provided by JAXA or NASA;
- coordinating with other technical areas of the I-HAB team (e.g. avionics, software, power, thermal, structure, baseline configuration and verification) to ensure coherent implementation at any level of the I-HAB ECLSS;
- supporting I-HAB team member(s) in the management of the Multilateral Agencies documents related to I-HAB data,

hardware, software and verification exchanges;

- other relevant ECLSS technical activities in the area of Human Space Exploration, as required.

Technical competencies

System engineering and understanding of system requirements and I/F with focus on life support aspects (ECLSS)

Background and substantial experience (5 years minimum) in the technical domains covered by the position

Ability to rapidly assimilate and synthesise complex information

Experience working with other international space agencies

Experience with industrial procurement and development, verification process and conduct of reviews

Behavioural competencies

Self Motivation

Problem Solving

Planning & Organisation

Teamwork

Systems & Broader Business Thinking

Education

A Master's degree in engineering is required.

Additional requirements

You should have proven experience in the environmental control life-support engineering system (ECLSS) and an understanding of its implications and of the interdependencies between ECLSS and subsystems.

You should be able to work in teams as strong team-players in a multicultural environment. Being results-oriented and able to sustain a high-level workload, with peaks for specified events, working hours adjusted to NASA and JAXA office hours, are essential to perform well in the job.

Experience of the following will be considered a specific asset:

- working in the area in question with international partners (JAXA, NASA, etc.);
- working on human spaceflight projects;
- coordinating and managing space project reviews.

Other information

For behavioural competencies expected from ESA staff in general, please refer to the ESA Competency Framework.

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.

The Agency may require applicants to undergo selection tests.

The closing date for applications is 31 August 2020.

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, the United Kingdom and Canada and Slovenia.

According to the ESA Convention the recruitment of staff must take into account an adequate distribution of posts among nationals of the ESA Member States. When short-listing for an interview, priority will first be given to internal candidates and secondly to external candidates from under-represented Member States. (<http://esamultimedia.esa.int/docs/careers/NationalityTargets.pdf>)

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.

Recruitment will normally be at the first grade in the band (A2); however, if the candidate selected has little or no experience, the position may be filled at A1 level.