

## Job Title: Software Systems Engineer

Req ID 3921 - Posted 11/01/2018



### EUROPEAN SPACE AGENCY

Vacancy 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. Applications from women are encouraged.

#### Post

Software Systems Engineer

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

#### Location

ESTEC, Noordwijk, The Netherlands with resident assignment to ESRIN, Frascati (Italy)

#### Description

Software Systems Engineer in the Software Systems Engineering Section, Software Systems Division, Systems, Software and Technology Department, Directorate of Technical and Quality Management. Assigned as integrated support in the Software Systems Engineer function to the Vega and Space Rider Development Programme, Space Transportation Development Department, reporting to the Launcher System Development Avionics Manager, the postholder is responsible for all Vega and Space Rider technical activities in the flight, ground and verification facility software areas and for supporting guidance, navigation & control (GNC) algorithm engineering. For Vega, the range of activities encompasses development of Vega-C, Vega-E and relevant Vega spin-offs (e.g. Space Rider, SSMS dispenser, Venus).

#### Duties

Duties will notably include:

- managing technical activities under the Vega and Space Rider Programme: defining technical requirements specifications, architecture and interfaces with other subsystems, design definition, development, validation and qualification relevant to Vega-C and Space Rider software and GNC algorithms, including failure detection isolation & recovery;
- apportioning technical requirements from system level to software and GNC, defining the relevant internal/external interface specifications, from launch system down to launcher system and subsystems, launch base and launch range;
- reviewing critically the engineering activities, in particular the performance of Vega-C and Space Rider software and GNC algorithms including ascent, orbital, re-entry and precision-landing phases;
- contributing to Vega-C and Space Rider verification and validation strategy within the area of responsibility, in coordination with the system and avionics, including simulation and test facilities (SWIL, HWIL campaigns);
- participating in trade-offs to select the most suitable sensors and actuators and advanced control techniques to meet the system Vega-C and Space Rider performance requirements;
- providing technical management of software and GNC in Vega production, in particular for the mission acceptance process, supporting the process for flight anomalies and non-conformances, assessment of requests for waivers or deviations, surveillance of the change proposal process and impacts on Vega launcher qualification status;
- drafting the relevant statement of work, evaluating industrial offers, supporting the negotiation process for industrial contracts within this area of responsibility;
- evaluating industrial deliverables and their formal acceptance by ESA within this area;
- contributing to prepare milestones and reviews, including specific software and GNC reviews for the Vega-C and Space Rider programs;
- supporting exploitation activities relevant to flight trajectory reconstruction, comparing performance levels derived from flight data against predictions and GNC requirements.

#### Technical competencies

Knowledge of technical domains and related R&D space industry trends

Technical domains and in particular space systems development

Knowledge of innovation-related processes

#### Behavioural competencies

Continuous Learning

Customer Focus

Innovation & Creativity

Problem Solving

Results Orientation

Self Motivation

#### Education

Applicants should have a Master's degree or equivalent qualification in a relevant engineering field, with a strong background in design, development, assembly, integration, testing and acceptance of software and GNC for space transportation applications.

#### Additional requirements

Knowledge of spacecraft systems engineering and/or experience of launcher development and qualification and possibly launch system operations, ECSS and ESA standards would be an advantage.

Experience of algorithm prototyping including closed-loop and Montecarlo simulation (3-DOF, 6-DOF) will be an asset.

#### 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 application is 8 February 2018.**

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. Priority will first be given to internal candidates and secondly to external candidates from under-represented Member States when short-listing for interview.

<http://esamultimedia.esa.int/docs/careers/NationalityTargets.pdf>

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