

# Ref.<sup>a</sup> T20243

Talent driven culture.

Our client is a space systems engineering company, delivering advanced design solutions and turn-key space SW systems. Building on a solid team of highly motivated and specialized engineers, is now a reference player in the European space sector, leading in the areas of Mission Analysis, Guidance, Navigation and Control, Global Navigation Satellite Systems Technologies, Ground Segment Systems and Earth Observation applications.

We are looking for **an engineer to be integrated in the Functional Avionics (FAV) Competence Centre in Lisbon, to support new growth areas in Functional Verification.** The work of the FAV Competence Centre is mainly oriented to design avionics architectures especially focused on AOCS subsystems, Functional verification architectures especially for project phases C/D, FDIR definition, interfaces definition to support GNC and Flight Software architects. As a matter of reference, the activities covered:

- Satellite formation flying, rendezvous, in-orbit servicing (IOS) and active debris removal (ADR)
- Entry, descent, and landing on planets (Earth, Mars) & natural satellites
- Launch vehicles
- Earth observation, up-stream (flight segment) and downstream
- Interplanetary exploration and navigation
- Unmanned autonomous vehicles (UAVs, UGVs)
- System and mission design

#### Location: Lisbon, Portugal

### Main Accountabilities:

The following types of responsibilities are envisioned:

- Hybrid Test bench design/implementation/validation
- Support to AOCS test campaign in Hybrid HW/Simulated test bench
- Support to procurement of Harness, HW related to AOCS Subsystem
- Analysis and documentation to support avionics architecture definition.
- Support to AIT activities

#### The activities involved may include:

- Specification and validation AOCS subsystem solutions
- Analysis and trade-off of hardware solutions
- Interface with the overall system team

Ideally the candidate is experienced also with the following activities:

- Model-based design and implementation of GNC/AOCS algorithms
- Simulator design, implementation, and testing
- Simulation of dynamic systems
- Mathematical modelling
- Specification and validation of GNC/AOCS solutions

## **Requirements & Qualifications:**

- <u>Required</u>: a recognized engineering degree (Mechanical, Aerospace, Electrical, Electronic) or a related degree (e.g., Physics, Maths).
- 2- 5 years' experience in the practical application of the domains relevant to the post (experience obtained while obtaining relevant MSc & PhD studies could also be considered as applicable for the position) and demonstrated solid technical background in the Aerospace Sector. The position will be tailored to the level of experience and additional industrial experience would be viewed very positively.
- Required:
  - Familiar with V&V campaigns with Earth Observation satellites and/or launchers
  - Practical experience in aeronautical/aerospace sector especially on Functional avionics (experience in ESA/European programmes is welcome)
  - Capacity to understand new concepts and apply them to engineering problems.
  - Familiar with PIL/HIL test campaign
  - Familiar with PUS concept and to work under ECSS schemes.
  - Familiar with EGSE and test environments in C/D satellite project phases.
  - Good programming skills: C/C++, Matlab/Simulink, AOCS
  - Some experience in HW AIT/AIV (or in general "like to play with HW"), in V&V cycle, and knowledge of Real Time Environment (e.g. dSpace, Speedgoat, etc.) are a plus
  - A strong background in control and simulation of dynamic systems
- Desired:
  - Experience in flight operations in ESA/European programmes
  - Solid theoretical background in GNC/AOCS

# If you meet the above requirements, please send your application via email: careers@qsr.consulting with reference to T20243\_Rec\_ Functional Avionics Engineer.

- Background on Kalman filtering
- Language Skills:
  - Required: high level of English, spoken and written

# Offer:

- Wage package appropriate to the presented experience;
- Career development opportunity;
- Employment contract established directly with our client company;
- Work in highly innovative projects with ESA (European Space Agency).