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# Embedded Software Engineer\_ GNC systems (M/F)

Ref.ª T202107

Our client is a Portuguese 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 Embedded Software Engineer for GNC systems to be integrated in the Embedded Systems Competence Centre (CC) of the Flight Systems Business Unit. The work of the CC is oriented to the specification, design, development and validation of Embedded Software and Hardware systems for space vehicles, including GNC systems, GNSS, Image processing, verification facilities, etc.

**Location:** Lisbon, Portugal

## Main Accountabilities:

- Participation in the development of the critical embedded Software for Guidance-Navigation and Control systems, starting from an existing GNC algorithm design, to achieve the complete Software design, development, integration and validation in the actual On-Board computer;
- Participation in the design and implementation of PIL / HIL test-benches;
- Participation in the Software validation and system qualification;
- Interaction with other Competence Centers and different technical areas inside the Company, including GNC, GNSS and others.

## Requirements & Qualifications:


- Required: a recognized engineering degree (Computer Sciences, Electrical, Electronic, Telecommunications) or a related degree (e.g., Aerospace) with demonstrable experience in computer systems and software engineering.
- Desired: postgraduate studies (M.Sc. or Ph.D.) with a focus on software engineering, real-time software or embedded systems design.
- At least 1 to 2 years in the practical application of the domains relevant to the post (experience obtained

If you meet the above requirements, please send your application via email: [careers@qsr.consulting](mailto:careers@qsr.consulting) with reference to T202107\_PRO\_Embedded Software Engineer\_ GNC systems (M/F).

while obtaining relevant MSc & PhD studies could also be considered as applicable for the position). The position will be tailored to the level of experience. Industrial experience in the aerospace sector and/or critical software development will be viewed positively.

- Required:
  - Solid theoretical background in Software Engineering (OOP, Design Patterns);
  - Good programming skills (C, C++, plus potentially others as Python) and knowledge of software configuration control (GIT, SVN);
  - Model based design and implementation: Matlab/Simulink design and knowledge / practical experience of automatic code generation;
  - Knowledge or experience on Software testing, Unit and integration testing, Software integration, interfaces design;
  - Generation of project documentation, including requirements specifications, SW design, and other engineering documentation.
- Desired:
  - Testing and verification approaches along the Software life-cycle: SW verification and validation, regression tests;
  - Practical experience in development of embedded systems in related industrial context as e.g., ESA programmes, Aero/Automotive/Rail, or other experience in safety critical software (e.g in European primes, OBSW providers, etc.);
  - Background in real-time software;
  - Experience or knowledge of SW Coding Standards (MISRA-C).
- Appreciated:
  - Knowledge in the development of PIL / HIL test benches (RTTB, FVB, SCOE, EGSE, Unit testers) for the validation and qualification of software systems;
  - DevOps infrastructure: Continuous integration strategies and tools (Jenkins, Bamboo, SonarQube, etc...);
  - Experience in multithread applications, real-time operating systems (eg. RTEMS, VxWorks, FreeRTOS, etc.), or embedded computers (eg. LEON, ARM);
  - Practical experience in communication buses, drivers and associated communication protocols (eg. Bus CAN, 1553, SpaceWire, Serial line, etc.);
  - SW and Systems design documentation methodologies and tools: UML, SysML.
- Language Skills:
  - Good level of English (spoken and written);
  - Appreciated: Spanish.
- Capability to integrate in and work within a multidisciplinary team, in a collaborative international environment with full responsibility on specific areas of the work under development;
- Initiative, autonomy and self-development;

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- Responsibility towards the customer and colleagues;
  - Proactive attitude to solve problems, identify priority actions and handle concurrent activities and deadlines.

**Offer:**

- Wage package appropriate to the presented experience;
- Career development opportunity;
- Contractual link established directly with the client.

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