FPGA/SoC ENGINEER (M/F)

Ref.ª T202309

Our client provides advanced design solutions and turnkey software systems for the Space industry. Based on a solid team of highly motivated and specialized engineers, the company is today a reference in the European Space sector. The company focuses on the design of systems for Space and the development and validation of operational software systems, in the areas of Global Satellite Navigation Systems (GNSS) Technologies, Mission Analysis, System Engineering, Guidance, Navigation and Control (GNC), Attitude and Orbit Control Systems (AOCS), Ground Segment Systems, On board Software Systems and Information Systems.

The company is hiring a FPGA/SoC Engineer with knowledge and experience in C/C++ programming to work on the improvement of its GNSS receiver with new advanced features for terrestrial and space use in projects promoted by ESA (European Space Agency) and in European projects related with Quantum technology.

Location: Lisbon, Portugal

Responsibilities:

Xilinx SoC:

- Responsible for the design and generation of the new SoC versions for the different hardware platforms (Zynq 7045, UltraScale+, etc);
- Responsible for the SoC versions management;
- Support the team in the functionalities already implemented such as:
  - o Communication between CPU cores (within the SoC);
  - o Interface between the FPGA and the CPU core (within the SoC);
  - o Interface between FPGA and external physical drivers (Ethernet PHY, CAN, I2C, SPI, etc);
- Support with Linux OS issues: kernel configuration, boot scripts, etc.

Microsemi/Microchip SoC:

- Requirements review in particular related with FPGA design;
- Responsible for the design of the Quantum technology solution;
- Responsible for the interfaces definition and implementation;

If you meet the above requirements, please send your application via email: careers@qsr.consulting with reference to T202309_PRO_ FPGA/SoC Engineer

- Integration of software/hardware modules;
- Technical meetings with the partners.

Requirements & Qualifications:

- Master's degree (or higher) in engineering areas such as: Software, Electronics, Electrotechnics, Telecommunications, Aerospace, Mathematics, Physics. Relevant equivalent work experience may be considered.
- Required knowledge in:
  - o Embedded C / C++
  - o SoC (System on Chip) design with Xilinx Vivado and Microsemi/Microchip tools
  - o FPGA tools for Xilinx and/or Microsemi/Microchip FPGAs
- Desirable knowledge in:
  - o VHDL and/or Verilog
  - o Experience with ARM processor and FPGA platforms
  - o Continuous Integration environment (git workflow, code quality)
  - o Digital signal processing
- The following are considered a plus:
  - o RTOS (Real Time Operating System) as FreeRTOS, Petalinux and/or Linux
  - o Operating Systems, multithreading programming and Data Structures
  - o General knowledge of GNSS systems (GPS and/or GALILEO constellations)
- Fluent English both written and spoken.
- Team player with good communication skills.

Offer:

- Wage package appropriate to the demonstrated knowledge and experience.
- Career development opportunity.
- Contractual link established directly with the company.
- Work in highly innovative projects with ESA (European Space Agency).
- Contact with GNSS (GPS + GALILEO) receivers for Terrestrial and Space usage.
- Contact with QKD (Quantum Key Distribution) in European projects.

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