

Firmware Engineer (REF 1602 ENGR FwE)

Position: Full-time

Location: Bologna (Italy)

JOB DESCRIPTION

Design, debug, testing and industrialization of FPGA and Firmware code for IVD Medical Devices with the role of Firmware Engineer.

DUTIES & RESPONSIBILITIES

- Design, debug and testing of applicative/instrumental firmware for a number of embedded subsystems based on microprocessors/microcontroller and/or SoC.
- Design FPGA logic using VHDL/Verilog HDL
- Design firmware and FPGA code in compliance with the IVD Medical Device Standards (IEC 62304)
- Manage autonomously every aspect of the software lifecycle process, from the requirements elicitation/prioritization up to the verification/validation and deployment
- Write technical documentation
- Collaborate with the HW team in board design and schematic review, helping to select key components, interfaces, and protocols
- Collaborate with the V&V team since the early phases of development and write and execute test protocols
- Support the execution of FMEA, FMECA and Risk Analysis

BASIC REQUIREMENTS

- Master's Degree in Electronic, Computer Science or Physics
- 3-plus years of experience in relevant field
- Strong programming skills in C language for embedded systems
- Good knowledge of VHDL/Verilog and FPGA development
- Good knowledge of microcontrollers architecture
- Good knowledge of RTOS
- Good knowledge of configuration management tools (Subversion)
- Ability to work autonomously in a collaborative and multidisciplinary environment, with accuracy, reactivity and reliability
- Good knowledge of English language, both written and spoken

PREFERRED QUALIFICATIONS

- Good knowledge of image analysis algorithms & pattern recognition
- Good knowledge of Xilinx EDA tools (Vivado, SDK), Zynq SoC, Kintex and Virtex FPGA families
- Good knowledge of Assembly language
- Experienced in developing drivers for RS-232/USB/LAN controlled instrumentation
- Good knowledge of LabView and/or C# and/or C++ programming language
- Good knowledge of Linux Operating System
- Experience in design of mixed analogic and digital electronics boards
- Experience in CE, CSA-UL, IVD electronic systems certifications and in particular on normative IEC 61326-1, IEC61326-2-6, IEC 61010-1, IEC 61010-2-101, UL 61010-1, ISO 14971, IEC 60812 and ISO 13485, IEC 62304, USA 21 CFR 820

Menarini Silicon Biosystems S.p.A. is committed to equal opportunity in the terms and conditions of employment for job applicants without regard to race, religion, sex, sexual orientation, age, gender identity or gender expression, national origin. Please, deliver your CV and specifying into object field: " REF 1602_ENGR_FwE ", explicitly authorizing the treatment of your sensible and personal data in compliance with Italian law in force D.Lgs. 196/2003