

Digital FPGA Design Engineer

Ref: FPGA_2022_4

Our company

IMASENIC is a high-tech, innovation-driven company, specialized in the development of image sensors and high-speed readout systems. It is based in Barcelona. We develop products for our world-wide customers and for a wide range of applications: from scientific to consumer, from biomedical to industrial, from space to automotive.

We are now seeking a Hardware/FPGA Electronics Engineer. You will develop high-speed, high data-throughput readout systems for our image sensors. You are an experienced digital FPGA design engineer thriving to make significant contributions in this area. You will work with a growing team of engineers with decades of experience in electronics and IC design.

Location: IMASENIC premises in Pl. Tetuan 40-41, central Barcelona. Some work-from-home is possible.

Preferred start date: March-April 2022.

Your primary responsibilities

You will be responsible for developing complete electronics system to capture, process and transmit images of our CMOS image sensors. The work will include:

- the selection of the best FPGA products for every application;
- architecture of electronic systems based on FPGAs;
- the development of Verilog code and firmware for FPGAs with embedded micro-processors;
- technical guidance at project level and contribution to the company technology roadmap in the area of camera development;
- hands-on problem solving of complex electronic systems with high-speed interfaces;
- technical project coordination.

Experience and education requirements

The ideal candidate should have more than 5 years of experience developing HW electronics systems with FPGAs. You should have hands-on experience with many of the following:

- Architecture of complex FPGA-based electronic systems for high-speed communications, imaging, aerospace or comparable applications;
- Xilinx FPGAs and Xilinx development tools (Vivado, Vitis);
- Xilinx Ultrascale and Ultrascale+ architecture;
- Coding Verilog RTL for FPGAs or ASICs;
- IP verification (writing complex and self-checking testbenches in Verilog or SystemVerilog);
- Back-end digital flows (Synthesis, P&R, sign-off);
- SERDES interfaces at the level of the system and inside FPGA/SoC;
- Design of high-speed (>1GHz) printed circuit boards;
- Software/firmware development methodologies and tools (git, code reviews, task tracking software);
- C/C++ for FPGA embedded microprocessors;

- High-speed networking communication protocols and technologies at different levels of the stack (QSFP28/56, 100G Ethernet, IP/UDP/TCP);
- Imaging systems (computer vision, scientific cameras, bio-medical imaging, or similar);
- Technical leadership of complex electronics projects.

You should be self-motivated as well as a very good team player.

As education requirement, you should have a Bachelor's, Master's or Ph.D, degree in Electronics, Electrical Engineering, Computer Science or related fields.

What we offer

We offer a friendly, dynamic and technically-challenging work environment.

IMASENIC is an equal opportunity employer. We encourage applications from every background, regardless of gender, nationality and age.

We offer competitive compensation according to the experience of the candidate.

How to apply

Please send your CV completed with a motivation letter to info@imasenic.com.

For any question, please also write to info@imasenic.com or phone +34 935466100.

Barcelona, 14th of February 2022