Digital Design Engineer

About Blighter

With global reach across the defence and critical national infrastructure sectors, Blighter has unique and patented best in class surveillance radar technology. A product company, Blighter delivers unique radar-based products that are specifically designed for protecting irreplaceable assets in demanding environments.

Blighter is poised to conquer a now fast-growing surveillance market whilst scaling up the business and taking advantage of these opportunities. It's an exciting time to be part of the team which is based South of Cambridge that takes the company to its next level, creating genuine value via its unique technology and commitment to quality.

The Opportunity

Our next generation radar features a modular and scaleable architecture for which we require a flexible and high performance real-time communications and processing capability. You will work within a team of 15 multi-skilled engineers to design, develop and deliver our new radar system to time and to budget. Using Xilinx FPGA products and tools, we are designing a high performance military grade system that will stretch and challenge you. We operate a hybrid working scheme and expect our team members to be in the office at least 2 or 3 times a week depending on project demands.

Key responsibilities and experience

- Design and development of high speed digital circuits for realtime systems preferably using Altium Designer.
- Design and development of FPGA code in VHDL, preferably using Xilinx design tools.
- Design of test software preferably using C/C++ and Python.
- Experience of using high-speed I/O on FPGA/SoMs including analogue sampling.
- Experience of implementing signal processing algorithms in FPGA under tight timing constraints.
- Generation of high quality documentation including design description, block diagrams, interface control documents, test procedures, review packages, design verification and test plans.

Qualifications, skills and competencies

- Engineering or other technical degree (or equivalent combination of experience and education).
- Solid understanding of development of electronics-based products.
- A good understanding and appreciation of other engineering disciplines.
- Excellent interpersonal and written communication skills to allow efficient hybrid office/home team working.
- Able to work collaboratively under pressure and to tight timescales.

Additional preferred/desirable requirements

- Proficient in control and use of a variety of test equipment including Oscilloscopes, Spectrum Analyzers, and Signal Generators .
- Familiarity with PetaLinux.
- Understanding of radar sigal processing techniques.
- High bandwidth real-time data distribution between multiple FPGA devices.

Reporting to/direct reports

- Reporting to Engineering Director.

We are an equal opportunity employer and will consider all qualified applicants for employment without discrimination on grounds of disability, gender or gender orientation, pregnancy or maternity leave status, race or national or ethnic origin, age, religion or belief, gender identity or re-assignment, marital or civil partnership status, protected veteran status (if applicable) or any other characteristic protected by law.