



Electronics Engineer

Job Description

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| Role | Electronics Engineer |
| Commitment | Full-time role |
| Salary | Competitive package dependent on experience, including Pension |
| Employer | Ionix Advanced Technologies Ltd. (www.ionix.at) |
| Reports to | Development Director |
| Location | Ionix's development and manufacturing activities are based in Huddersfield, West Yorkshire. UK, easily accessible from Leeds, Manchester and Sheffield. |

Summary:

Ionix Advanced Technologies specialises in high performance, extreme environment piezoelectric devices, systems and materials, offering a range of sensors, actuators and transducer devices based on its novel piezoelectric materials, with applications in areas such as non-destructive testing/evaluation (NDT/E) condition monitoring and flow measurement in demanding environments.

Piezoelectric materials are used in a vast and rapidly expanding range of actuators and sensors. They are the irreplaceable heart of systems such as medical ultrasound imaging, non-destructive testing (NDT), energy harvesting and SONAR comprising a \$15bn annual market. Ionix has developed novel range of high temperature piezoelectric materials, which can operate in extreme environments in excess of 500 °C and with which opens the opportunity to a whole host of new high temperature sensing technologies.

Purpose:

Ionix is currently looking for a digital Electronics Engineer who will be a key contributor to the product development team, providing electronics expertise, and with an opportunity to take ownership of a wide range of tasks.

Focussing on ultrasonic sensors for defect detection and monitoring of process conditions, using wired and wireless enabled devices, this role will require the design and development of hardware and embedded software for manufacturing sensor and system product solutions to support the needs of Ionix clients and meeting company goals.

An exciting and varied product focussed role, requiring an individual with excellent practical and technical skills, with the capability to work independently and lead projects with external suppliers and contractors, as well as integrating analogue electronics and power management to systems that can be used in explosive or hazardous environments.

You will work closely with ultrasonics engineers and business development teams to meet the expectations of client demands in products that will see service in Aerospace, Automotive, Nuclear, Manufacturing, Plant, Process Control and Oil & Gas sectors.

Applicants must have the right to live and work in the UK.



Responsibilities:

- Manage projects to develop Ionix sensor & system products for customers' sites across Oil & Gas, Petrochemical, Nuclear & Fossil Fuel Energy and Process Control following the Ionix Advanced Product Quality Planning (APQP) process.
- PCBA design, appraisal and prototyping including selecting appropriate components and with robust layout, and testing/diagnosing for correct functionality.
- Specify requirements for electronic hardware, including wireless and wired communication, data storage, power management and integration with analogue ultrasonic modules with suppliers and partners.
- Liaise with suppliers and produce bill-of-materials for new board designs.
- Embedded software appraisal, modification, development, validation and verification.
- Fault finding, debugging and customer led support and modifications to hardware, software and capability.
- Lead electronics design development within the scope of ATEX and IECEx explosive environment requirements
- To provide technical advice to specified clients as part of the business development process, supporting and working with sales and technical colleagues.
- Present progress and feedback from development activities to technical and commercial colleagues to support product development.

The Candidate

Essential skills and personal attributes:

- At least 3 years' experience of designing digital circuits including using embedded processors and FPGAs, digital signal processing and filtering, and a degree - or equivalent - in Electronic Engineering or related field.
- Demonstrable understanding of modern design simulation and verification tools.
- Competence in programming of embedded software / firmware in a common language, such as C /C++
- Experience of working under a quality management system, including documentation control, change and configuration management.
- Excellent project management skills and experience of successful project delivery.
- Good communication skills to articulate aspects of electronics development to other engineering disciplines.
- Entrepreneurial, innovative and resourceful, able to work independently to meet deadlines within a small team, working in a dynamic SME environment.
- Comfortable helping with any tasks and learning new skills in other engineering areas.

Desirable skills and attributes (but not essential)

- Knowledge of instrumentation, sensors and monitoring system products within the Oil & Gas, Energy and Process Control sectors.
- Experience of analogue circuits, especially ultrasonics.
- Knowledge or experience in 4-20mA, ModBus or HART wired – or WirelessHART, Bluetooth or LoRa wireless communication.
- Experience of EMC management and testing
- Experience of meeting compliance to standards and technical file control. Knowledge of intrinsically safe circuits

To apply for this role, please send your CV and covering letter to careers@ionix.at with the reference "EE082020"