IOT EMBEDDED SYSTEMS ENGINEER

Company Description

A leading knowledge transfer centre providing competitive value to companies.
IKERLAN is a Basque (https://www.basquecountry-tourism.com/) leading knowledge transfer technological centre providing competitive value to companies. We seek for excellence in R&D&i, thanks to the continuous adaptation to the needs of our customers and the proximity with the business reality. Faithful to our mission, we have been working daily since 1974 to develop solutions that allow our customers to become more and more competitive. We are a cooperative member of the MONDRAGON Corporation (https://www.mondragon-corporation.com/en/).
Thanks to a unique cooperation model, which combines technology transfer activities, internal research and training of highly qualified personnel, IKERLAN is currently the trusted technological partner of major companies in the country. To meet our goal, we are structured in three technological specialisation units: •
ELECTRONICS, INFORMATION AND COMMUNICATION TECHNOLOGIES
• ENERGY AND POWER ELECTRONICS
• ADVANCED MANUFACTURING
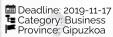IKERLAN is a centre that is dynamic and open to the world. We are an agent credited by the Basque Network of Science, technology and Innovation, and we have a major cooperation network integrated by renowned European

Information

Deadline: 2019-11-17
Category: Business
Province: Gipuzkoa
Country: Basque Country
City: Arrasate

Company

Ikerlan

Main functions, requisites & benefits

Main functions

Functions: We are looking for an IoT Embedded Systems Engineer to join the IKERLAN IoT and Digital Platforms team. The main functions to be performed within the team will be to implement innovative solutions in IoT technologies/platforms, to connect IoT applications and devices with public and private cloud platforms, and to develop edge/fog architectures for industry 4.0 environments or other critical sectors such as transportation and/or elevation. Responsibilities: Designing and developing IoT applications in a variety of devices and hardware platforms in order to provide solutions to multiple sectors. Implement reusable components, libraries and frameworks taking into account a development life cycle geared towards testing and validation. Plan and execute software component integration and validation programmes. Promote innovation and the integration of new technologies in projects. Collaborate and participate in multidisciplinary project groups. Develop innovative prototypes to demonstrate the team's capabilities, integrating technologies and knowledge acquired. Manage projects with clients, determining their needs and proposing specific solutions to their problems.

Requisites

Education: Telecommunications Engineering, Electronics Engineering, Computer Engineering or similar. A PhD in related fields will be highly valued. Good communication skills in English. Experience: Experience in software and/or firmware development for C/C++ embedded systems. Experience with Linux work environments (bash scripting, development tools, service management, etc.). Familiarity with IoT hardware platforms and microcontrollers (Arduino, Raspberry Pi, ESP8266, Adafruit, ARM Cortex MCUs). Familiarity with cloud platforms (AWS IoT, Azure IoT Hub, Google Cloud IoT) and use of IoT protocols (DDS, MQTT, CoAP, AMQP, LWM2M). Knowledge of short range (WiFi, BLE, ZigBee, NFC) and/or long range (2G/3G/4G, NB-IoT, LTE-M, LoRa, SigFox) wireless communication technologies. Ability to write quality code (legible, structured and documented) and apply optimal design patterns. Experience with version control systems (CVS, SVN, TFS, GIT). Experience in other programming languages such as Java/Python/Go would be an advantage. Knowledge of embedded operating systems (Linux Embedded, FreeRTOS, Mbed, OpenWRT) or custom image generation (Yocto, Buildroot) is an advantage. Knowledge of edge/fog architectures (AWS Greengrass, Azure IoT Edge) would be an asset. Knowledge of microservice-based architectures (Kubernetes, Spring Cloud) would be an asset. Knowledge of container-based architectures (LXC, rkt, Docker) is desirable. Continuous integration experience will be considered a plus: build and test automation, definition of metrics, acceptance tests, deployment automation, etc. Experience in unit testing, verification and validation shall be considered an asset. Experience in agile development methodologies (Scrum, Kanban, Agile) would be appreciated. Knowledge of augmented reality or machine learning will be an asset. Experience in the use of Matlab/Simulink modelling tools will be an advantage. Knowledge of industrial communication protocols (OPC-UA, CANBUS, ModBus) will be an asset. Ability with electrical schematics compression, oscilloscope handling to debug problems and basic welding skills will be appreciated. Skills: Passionate about programming and technology in general. Commitment to quality. Teamwork skills and performance of support tasks