

Research engineer : Secure communication module for the IoT

Position: Research engineer Grenoble INP
Contract: fixed-term 12 months, gross salary 28k€/year minimum
Start date: ASAP
Location: Grenoble, Rhône-Alpes, France
Hosting institution: LIG laboratory, Université Grenoble Alpes, Grenoble Institute of Technology
Scientific advisor: Franck Rousseau @LIG/UGA
Application deadline: 01/06/2017

Context

iotize: to enable the Internet of Things by adding networking connectivity to an existing electronic system which was not previously designed to allow a network connection.

IoTize™ is a collaborative research and development project aimed at optimizing, securing and facilitating the use of a promising technology. This project consortium regroups leading companies and laboratories in digital security, embedded components and radio frequency technologies. These partners address all facets of IoT implementation from cloud-level services and security, to RF technology implementation, board-level security and manufacturing.

Expected work

In the scope of the IoTize project, we work on the development of an end-to-end security solution. You will work on the implementation of software security solutions based on hardware anchors available in current and future embedded ARM-based microcontrollers.

Tasks :

- implement an authentication and encryption solution for IoTize;
- implement a secure host-IoTize link;
- implement a secure IoTize-smartphone link;
- implement a remote security management scheme based on cloud services.

Skills & Expertise

Applicants for this position must have an engineer, MSc or PhD diploma in computer science.

Expected skills:

- Python and C programming languages;
- good software development practices (version control, tests);
- Unix-like environment.

Good to have:

- embedded systems programming;
- security and cryptography.

Location and Institution

The LIG laboratory is located in Grenoble, the capital of the Alps. Grenoble is one of France's major scientific and industrial centers for computer science and applied mathematics. The city lies amidst three mountain ranges and offers exceptional quality of life, with extensive public transportation and dedicated bikeways.

The Drakkar group investigates various aspects of network protocols, security and multimedia applications with an emphasis on wireless networks and sensors networks. The LIG lab has just moved to the brand new IMAG building, thus offering a very high standard work environment.

How to Apply & Contact Information

If you need additional information on this job offer, please contact Franck.Rousseau@imag.fr

Please apply by sending the following documents to Franck.Rousseau@imag.fr:

- Email subject MUST start with "[IR IoTize]";
- Letter of application;
- Curriculum vitae;
- Transcripts for undergraduate and graduate studies;

- References or letters of recommendation are appreciated.

On the WWW

- <http://www.iotize.com>