



## **Research Engineer at Microsys Laboratory - University of Liege [ref: ResEng 3]**

### **Microsys laboratory description**

Microsys ([www.microsys.ulg.ac.be](http://www.microsys.ulg.ac.be)) conducts inter-disciplinary research in the following cutting-edge fields:

- Exploratory research on micro-assembly, interconnection methods and packaging, including techniques for harsh environment and biocompatible systems
- Exploratory research on MEMS sensors, including simulation, design and characterization
- Path finding research on energy harvesting
- Design of ultra-low-power microsystems using components off-the-shelf, from packaged to bare dies

### **Job summary**

Microsys is looking for a Research Engineer to reinforce its team. The candidate will work on a research project that will start in early 2018. The objective of this project is to develop a micro control module for a secure and certified miniature camera. Within this scope, the candidate will develop innovative hardware anti-tamper techniques, these being generally overlooked compared to cryptography in secure systems. The goal is to certify that the images recorded by the camera are authentic. The tasks will mainly consist in developing, implementing and testing secure packaging techniques that will allow the system to resist to several type of tamper attempt (probing, chemical and mechanical attack...). In parallel to these activities, the candidate will develop the electronic circuit of the camera module in collaboration with other project partners. System integration and miniaturization will also be part of the work.

As a member of a multidisciplinary team, the candidate will both benefit from the support of other team members in their specific fields and have to give support to them in his predilection fields. Furthermore, as a member of a research laboratory, scientific dissemination of the results through journal articles writing and conferences participation is expected.

### **Job requirement**

In order to perform intended tasks, the candidate will preferably already have knowledge in several of the following fields:

- o microelectronic packaging, interconnection and integration technique
- o hardware anti-tamper techniques
- o board level electronics circuit design, including related CAD software
- o embedded software development (C)
- o small scale mechanical system design, including related CAD software

### **The ideal candidate will have the following profile:**

- Master degree or PhD in Applied Sciences or Engineering (preferably with electromechanical, electrical, physical or chemical engineering specialization).
- Fresh graduates are encouraged to apply, even without background in packaging and anti-tamper techniques. Possibility for a PhD degree program enrollment.
- English proficiency both written and verbal skills are mandatory. French proficiency is an asset.
- Candidates need to have work eligibility in Belgium.

### **We offer**

A challenging position in a high-tech environment and in an international, interdisciplinary team. The salary is competitive and added with additional benefits (meal vouchers, insurance). It will take experience into account.

Furthermore, ULg offers various training possibilities and social services, such as a university restaurant, and discounts in different sport clubs and shops.

### **Interested?**

Please send CV and cover letter to Francois Dupont [fff.dupont@ulg.ac.be](mailto:fff.dupont@ulg.ac.be) and Prof. Michael Kraft [m.kraft@ulg.ac.be](mailto:m.kraft@ulg.ac.be).