Biomedical Science / Microwave design

Wireless communication platform for biomedical implants.

**Expected profile**

Master student with sound bases in Physics or Electrical Engineering with clear interest in biomedical applications. Experience in electromagnetic simulation, microwave engineering, microwave measurement, wireless power transmission using coupled magnetic resonance, biofuel cell, or related experimental skills is advantageous, but not mandatory. Excellent communication skills in English (French notions would be a plus). On top of that, you are rigorous, creative, motivated by working in a research environment, and able to work closely with other team members. You are also an autonomous and diligent person who can independently pursue the given project and bring it to a successful end.

The successful candidates will be part of a team dedicated to the design and development of the microwave link through the body. Some of the tasks involved are:

- Implementation of specialized characterization setup emulating the application environment,
- Development of circuit models as well as 3D FDTD models,
- Characterization material behavior over frequency,
- Radio blocks design and measurement,
- Analysis of the susceptibility of the radio blocks to external electromagnetic.

We are a young and small research group, unconstrained by traditional disciplines and apply engineering excellence to enable breakthrough scientific discovery. We have a friendly and dynamic research environment with close, daily interaction among all group members and strong collaborations with many international academic partners. Technical support is excellent with in-house state-of-the-art facilities. We are situated in the heart of University of Bordeaux campus, one of the leading technical universities of Europe, where we enjoy newly renovated office and lab space.

The University of Bordeaux, labeled a “Campus of Excellence” by the French government in 2011, was awarded significant funding to support its international profile and excellence, both in research and in education. Several example initiatives include The Advanced MAterials by Design Laboratory of Excellence targeted to become a worldwide-recognized major cluster in materials science, engineering and technology, carrying out scientific research and innovation at the interfaces of chemistry, physics, biology and engineering. Bordeaux is a region of its own, world-renowned for wine, food, and the influence of the Atlantic and nearby England.

**Contact details**

The position is for 3 years, fully funded. Applications should include a CV, as well as transcripts of marks obtained on your degree(s) and the names and contact details of two academic referees. Please also include a statement explaining your suitability for the project (with all documents in a single file).

Candidates are encouraged to apply, or at least make an expression of interest, as early as possible. The award will be filled as soon as a suitable candidate can be found. The last possible date we can receive applications is **15 July 2016**.

Informal enquiries/applications should be sent to Dr Simon Hemour simon.hemour@u-bordeaux.fr