

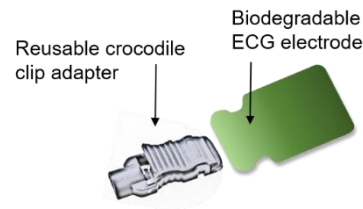
Open paid position

Comfortable ECG skin electrodes

Description of Group/Project

The Biomedical Applications Group (GAB) at the Institute of Microelectronics of Barcelona (IMB-CNM, CSIC) located at the UAB Campus is looking for a candidate to work in the field of skin wearable sensors development under the project **GreenELECTRO**. Tatto4Sleep will explore a novel technology for building a next generation of green electrodes for a more sustainable electrophysiology. Our focus lies in the development of novel biodegradable electrodes for electrocardiogram recording using conductive nanocellulose. The creation of this sustainable technological solution, which will have a minimal environmental impact and carbon footprint, will significate a reduction on the generation of medical waste and will be attained thanks to the use of the disposable biodegradable ECG electrodes.

GreenELECTRO Proposal



The candidate will join a highly dynamic group in the area of sensors and microelectronic technologies. The GAB group is multidisciplinary and formed by engineers, chemists, physicists, biochemists, etc

Main tasks and responsibilities

GreenELECTRO is a highly multidisciplinary project. Depending on your background you can participate in several tasks of the project:

- Setup a fabrication process for skin electronics technology by means of rapid prototyping techniques and printing technologies.
- Performance characterization of the manufactured prototypes: mechanical tests, electrical and/or electrochemical characterizations.
- Conduct breathability and biocompatibility evaluation of the prototypes
- Integration of the devices with the electronic system for signal processing
- Validate the devices and participate in the electrophysiological measurements (ECG recordings) in collaboration with experts in the field for the validation of ECG features for health monitoring and cardiovascular diseases.

Requirements/Background and skills

We are looking for enthusiastic candidates, ready to enjoy multidisciplinary research. Possibility to undergo a PhD. We are looking for candidates from Bachelor's or Master Degree in Nanoscience and Nanotechnology, Biomedical Engineering and Materials Science.

How to apply

All applications must be sent to gemma.gabriel@csic.es , with the subject ECG. Applications must include: CV and motivation letter. Reference letters will be appreciated.

Expected start date 1/03/2024

- This offer can be found on: <https://www.imb-cnm.csic.es/en/about-center/careers/open-positions>
- More information on IMB-CNM: <https://www.imb-cnm.csic.es/en/>