

As a flagship research center in nanoscience and nanotechnology, our mission is to open and explore new frontiers of knowledge at the nanoscale, and bring value to society in the form of new understanding, capabilities and innovation, while inspiring and providing broad training to the next generations of researchers. Our values are Commitment, Collaboration and Transformation.

Our research lines focus on the newly-discovered physical and chemical properties that arise from the behaviour of matter at the nanoscale. ICN2 has been awarded with the Severo Ochoa Center of Excellence distinction for three consecutive periods (2014-2018 and 2018-2022 and 2023-2026). ICN2 comprises 19 Research Groups, 7 Technical Development and Support Units and Facilities, and 2 Research Platforms, covering different areas of nanoscience and nanotechnology.

Job Title: Research Engineer

Research area or group: Advanced Electronic Materials and Devices

Description of Group/Project:

Advanced Electronic Materials and Devices Group focuses on the material sciences and technology aspects of novel electronic materials, with a strong emphasis on graphene as well as other 2D materials (MoS₂). The group also works towards the development of technological applications based on these materials such as electronics, bioelectronics and biosensing, neural interfaces, etc.

The activities cut across different scientific aspects, from the fundamentals (the physics of devices and semiconductors) to materials (growth of graphene and 2D materials by CVD and MOCVD, surface functionalisation, advanced characterisation), through to devices (fabrication technology, nanofabrication) and applications (biosensors, neural implants and biomedical technologies, energy storage and conversion).

Main Tasks and responsibilities:

The research activity of the candidate will be part of the i-VISION project (funded by La Caixa Foundation). This project is developing graphene-based neural technologies to interface with the retina. The candidate will be involved in activities related to the design, fabrication, and assessment of several components of neural interface technologies. In particular, the candidate will focus on the integration of thinned ASIC chips into thin-film flexible circuitry, working in cleanroom environment.

The candidate will be working in a very multidisciplinary project that covers topics such as materials science of graphene and other 2D materials, thin film technologies for neural interfaces, as well as in-vivo device validation of the neural technologies.

Requirements:

- **Education:**
MSc, PhD in Materials Science, Nanotechnology, Engineering, Physics, or equivalent degrees.
- **Knowledge and Professional Experience:**
Very extensive cleanroom experience in thin-film technology and device fabrication, flexible electronics
Science and technology of neural interfaces and implantable devices
2D materials and technology
- **Personal competences:**
Teamwork skills, Fluent English (both spoken and written), hands-on.

Summary of conditions:

- Full time work (37,5h/week)
- Contract Length: Temporary (1 year)
- Location: Bellaterra (Barcelona)

- Salary will depend on qualifications and demonstrated experience.
- Support to the relocation issues.
- Life Insurance.

Estimated Incorporation date: as soon as possible

How to apply:

All applications must be made via the ICN2 website <https://jobs.icn2.cat/job-openings/710/research-engineer-advanced-electronic-materials-and-devices> and include the following:

1. A cover letter.
2. A full CV including contact details.
3. 2 Reference letters or referee contacts.

Applications will be reviewed continuously.

Equal opportunities:

ICN2 is an equal opportunity employer committed to diversity and inclusion of people with disabilities. ICN2 is following the procedure for contract of people with disabilities according with article 59 of the Royal Decree 1/2015, of 30 of October.