

Postdoctoral researcher at the Biomedical Signal Processing and Interpretation (BIOSPIN) Research Group

Introduction to the vacant position:

The Biomedical Signal Processing and Interpretation Group (BIOSPIN) at the Institute for Bioengineering of Catalonia (IBEC) is looking for a Postdoctoral Researcher on the development of algorithms for wearables and contactless sensors. The contract will be within the framework of the “Advanced Unintrusive Remote health Assessment” (AURA) project, funded by the *Agencia Estatal de Investigación* in the call of “*proyectos de colaboración público-privada*” (PI: prof. Raimon Jané)

Main tasks and responsibilities:

- Design and development of algorithms for radiofrequency-based IoMT contactless, wearables and classical sensors.
- Comparison of different contactless sensors and wearables for respiratory and cardiac signals.
- Applications for personalized health tracking in general population and patients with stroke or spinal cord injury.
- Design and development of algorithms for multimodal biomedical signals
- Proposal of multimodal physiological biomarkers
- Proof-of-concept of smart contactless health systems

Requirements for candidates:

- Degree on any field of Engineering and PhD on Biomedical Engineering.
- Expertise in protocols for comparison of different sensors and wearables in respiratory and cardiac signals.
- Expertise in laboratories for signal acquisition of respiratory and cardiac signals.
- Knowledge on data analysis and biomedical signal processing.
- Experience in collaboration with hospitals in projects for clinical applications
- Experience in Postdoctoral positions
- Competencies and skills: Communication, Teamwork and collaboration, Commitment, Proactivity, Integrity, Critical and Analytical thinking.
- High level of English

We Offer:

- Number of available positions: 1
- Starting date: 01/07/2024
- Working conditions:
 - Full time Postdoc contract for 28 months (until 31/10/2026) of the “*Plan de Recuperación, Transformación y Resiliencia*” (PRTR).
 - Measures to reconcile work and family life (parental leave, flexible schedule working hours, 23 working days of paid holidays, 9 leave days for personal matters, among others).
- IBEC ensures equality of access to professional development opportunities irrespective of employment status, length at IBEC or other factors. The IBEC’s yearly training catalogue offers a wide range of training in technical and transferable skills including mobility grants and a Mentoring programme for postdoctoral researchers.
- Stimulating, interdisciplinary research and high-quality international scientific environment.

- Induction programme to facilitate incorporation at IBEC and additional support is provided for foreigners to obtain Visa-working permit and to install in Barcelona.

How to apply:

Until June 20th 2024, an online application form is available through IBEC dedicated site:

<https://careers.ibecbarcelona.eu/>

Only those applications submitted before the deadline will be evaluated.

Reference: PD-RJ.

If you have any further question regarding your application, please contact us at

jobs@ibecbarcelona.eu

Principles of the selection process:

IBEC is committed to the principles of the Code of Conduct for the Recruitment of Researchers of the European Commission and the Open, Transparent and Merit based Recruitment principles (OTM-R) <https://ibecbarcelona.eu/careers-at-ibec/jobs/>

IBEC's Commitment on equal opportunity:

Our strength and excellence as an international transdisciplinary Research Institute are based on diversity. Being an equal opportunity employer, we are committed to diversity and inclusion, so that we support employees irrespective of their gender, nationality, religion, disabilities, age, sexual identity or cultural and socioeconomic background."

IBEC actively looks for female candidates for Senior positions ensuring that at least 40% of shortlisted applicants invited to interview have to be women with comparable level of CVs as the male candidates. At the end of the evaluation process, in case of equal merit, priority will be given to female candidates.

For candidates with children that come from outside Barcelona, we offer babysitting services during the interview, so you don't have to worry about anything else than doing a good interview. Contact us if you are interested in this service.

IBEC, as a signatory of the San Francisco Declaration on Research Assessment (DORA), will consider, especially for early-stage investigators, much more the scientific content of research outputs, than publication metrics or the identity of the journal in which it were published.



HR EXCELLENCE IN RESEARCH

Protection of personal data:

IBEC guarantees that candidates' personal data are processed in accordance with the requirements of the EU General Data Protection Regulation (GDPR) and Law 3/2018 on Data Protection.

Personal data will be processed solely for the purposes of the selection process.

Who we are?

The Institute for Bioengineering of Catalonia, IBEC is an interdisciplinary research center focused on Bioengineering and Nanomedicine based in Barcelona. IBEC is one of the top research institutions named as a Severo Ochoa Research Centre by the Ministry of Science,

Universities and Innovation, which recognizes excellence at the highest international level in terms of research, training, human resources, outreach and technology transfer.

IBEC's mission is to develop international high-quality interdisciplinary research that, while creating knowledge, contributes to making a better quality of life, improving health and creating wealth. A close link with key universities, reference hospitals and corporations, are assets that facilitate achieving the mission.

IBEC was established in 2005 by the Generalitat de Catalunya (Autonomous Government of Catalonia), the University of Barcelona (UB) and the Technical University of Catalonia (UPC).

IBEC is located within the Barcelona Science Park and is managing 3.800 square meters facilities, with an annual budget of 22 Mio€; 4.150 square meters of facilities; 21 research groups and a team of researchers and support services of 400 people from 35 different countries.

www.ibecbarcelona.eu

The **BIOSPIN group** of IBEC is located at the **Building C** in the **Campus Diagonal-Besòs** of the Universitat Politècnica de Catalunya·Barcelona Tech (**UPC**).

<https://campusdiagonalbesos.com/>