



**Job Title: Postdoctoral researcher**

**Research area or group: Signal and Measurement Group (SYM)**

**Description of Group/Project:**

The SYM group is focused on designing and implementing new biosensing schemes and strategies to simplify chemical and biochemical analysis. The group experience and accumulated know-how cover from the conceptual design to the fabrication of integrated (bio)analytical instrumentation for selected applications.

The job is framed within a recent European project entitled Ultra-sound and Graphene FET-enhanced wearable Sensing (Ultrasense). It aims to set up a stretchable and multi-sensing biosensor as a wearable tool for continuous assessment of obesity-related biomarkers, fostering sustainable weight management. The job will be essentially related to implementing the electrochemical platform developed for the defined target bioapplications, especially focusing on the research line of biofunctionalization and immunoassay development.

**Main Tasks and responsibilities:**

The postdoctoral researcher will be involved in setting up graphene-based stretchable electrodes and screening the best receptors and assay format for the selected biomarkers. Specifically, the candidate will work on:

- Chemical surface modification of graphene films and organic/inorganic nanoparticles and their characterization with advanced techniques.
- Strategies for surface bioreceptor immobilization.
- Fluorescence immunoassay methods (ELISA, microarrays)
- Implementation of the developed platforms in a wearable, stretchable biosensor
- Written research reports and manuscripts

**Requirements:**

- **Education**



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We are looking for candidates within the field(s) of chemistry, materials science, and biochemistry.

## Professional Experience

Preferred qualifications include relevant work experience in surface chemistry and manipulation of graphene materials. Experience in the organic synthesis/chemical modification of small biomolecules or the construction/characterization of biomolecular assemblies is a valuable asset. Good spoken and written English are also required to formulate research reports and manuscripts.

## Competencies

Candidates must be able to work independently and should have excellent laboratory skills. Excellent knowledge of English (written and spoken), proactivity, teamwork, and strong communication skills are essential.

## Summary of conditions:

- Full-time work (37,5h/week)
- Contract Length: Temporary (until September 2027)
- Location: Universitat Politècnica de València (Valencia)
- Salary will depend on qualifications and demonstrated experience.

Estimated Incorporation date: 01/09/2024

## How to apply:

Researchers interested in applying are invited to provide the following to [vicgonpe@upv.es](mailto:vicgonpe@upv.es) and [mbpolo@upv.es](mailto:mbpolo@upv.es) by 30 May 2024:

1. A cover letter (optional).
2. Two most relevant scientific publications
3. A full CV including contact details.