

Company Description

NanoGUNE is a research center devoted to conducting world-class nanoscience research for a competitive growth of the Basque Country. NanoGUNE is a member of the Basque Research and Technology Alliance (BRTA) and is recognized by the Spanish Research Agency as a María de Maeztu Unit of Excellence. The position is offered in the Nanobiosystems Group, led by Medina Sánchez, Mariana (m.medina@nanogune.eu). Information can be found at <https://www.nanogune.eu/nano>

Information

 Deadline: 2025-04-30
 Category: Academia
 Province: Gipuzkoa

 Country: Spain
 City: Donostia-San Sebastián

Company

CIC nanoGUNE



Main functions, requisites & benefits

Main functions

The project will involve the following activities: developing Python-based frameworks for data acquisition and analysis of microrobot motion and response; designing and training machine learning models for dynamic decision-making and predictive control; implementing closed-loop feedback systems to enable adaptive microrobot behavior in real time; collaborating with experimental teams to integrate algorithms for data analytics.

Requisites

Master's degree in computer science, robotics, physics, biomedical engineering, or a related field. Strong programming skills in Python (experience with libraries like NumPy, SciPy, scikit-learn, PyTorch, or TensorFlow is a plus). Background in data analytics, machine learning, or robot control systems. Familiarity with control theory, real-time systems, or computer vision is advantageous. Excellent communication skills in English and a collaborative mindset. Motivation to work in a multidisciplinary and translational research environment.

Benefits

The position is expected to start in 01/09/2025 and for a total length of up to 12 months (01/09/2025 - 31/08/2026). We offer: enrollment in a fully funded PhD program within a vibrant international research institute; access to cutting-edge infrastructure and high-performance computing resources; close mentorship and collaboration with experts in nanotechnology, robotics, and biomedical science; opportunities for professional development and international research exchange.

