The Nanoscience Cooperative Research Center, CIC nanoGUNE, located in Donostia / San Sebastian, Basque Country (Spain), is currently looking for a

MASTER STUDENT

to work on

RAMAN SPECTROSCOPY IN LOW-DIMENSIONAL MATERIALS

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 significant growth, development, and evolution of technologies such as optoelectronics and spintronics have been always accompanied by the access to materials with targeted and extraordinary properties. Among these materials, low-dimensional materials such as graphene, transition metal chalcogenides, metal phosphorus trichalcogenides or hybrid organic-inorganic metal-halide perovskites have attracted the attention due to their extraordinary electronic, optic, and magnetic properties and the possibility of control them by fine tuning the composition, crystal structure and dimensionality.

In this **project**, we will focus on micro-Raman spectroscopy as a non-destructive and powerful tool for gaining insight into phase transitions, crystal structure or molecules arrangement and how they change with the composition, structure, and dimensionality of the low-dimensional materials. For this purpose, we will use single crystals and flakes of low-dimensional materials as material platform.
More information about our research into this topic can be found in this selection of our recent articles: J. Mater. Chem. C, 2025,13, 7102; Adv. Opt. Mater. 2024, 2400554; J. Mater. Chem. C 2024, 12, 2544; Adv. Funct. Mater. 2022, 2207988; and J. Phys: Mater. 2022, 5, 034004.

The Master student will be responsible for the design and preparation of the low-dimensional materials by exfoliation and stamping on substrates. The student will be also involved in the Raman spectroscopy measurements (including low temperature or polarization tests), data analysis, and drafting of results.

The position is offered in the **Nanodevices Group**, led by **Luis E. Hueso** (l.hueso@nanogune.eu) and co-led by **Fèlix Casanova** (f.casanova@nanogune.eu). More information can be found at https://www.nanogune.eu/en/research.
Note: This is an experimental project. The Master student will carry out all experiments at CIC nanoGUNE in Donostia/San Sebastián.

The position is expected to start in **01/09/2025** and for a total length of **up to 10 months** (01/09/2025 - 30/06/2026).

Candidates should **apply** by completing the **form below** and attaching the following documents:

a. A complete CV
b. Academic Record and Cover Letter grouped in a single PDF file

The **deadline** for applications is **22/06/2025**.

NOTES:

(i) All applicants will receive an answer after the end of the selection process; but please note that due to the large number of submissions that are expected, we cannot provide individual feedback.
(ii) Additional information about nanoGUNE's commitment towards HR excellence in Research and Gender Equality are available on our website.
(iii) We encourage you to subscribe to our HR mailing list to receive information related to nanoGUNE's open positions and open calls for different training and talent attraction programs.