

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
Design and characterization of self-cleaning photocatalytic coatings for the protection of monuments.

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 Nanomaterials Group, led by Prof. Dr. Mato Knez (m.knez@nanogune.eu). The activity of the Nanomaterials group is focused on the synthesis and functionalization of materials. Its research programme has been divided into thin-film coating, hybrid inorganic-organic materials, and bio-organic nanomaterials. More information can be found at <https://www.nanogune.eu/nanomaterials>.

This project proposes a novel strategy for heritage conservation. The candidate will join a research line focusing on using Atomic Layer Deposition (ALD) specifically designed for cultural heritage to develop coatings with protective (stability and durability) and photocatalytic properties (photodegradation of environmental pollutants and self-cleaning).

The aim of the **project** is to:

- Develop and optimize coatings with protective and photocatalytic properties.
- Assess their stability and durability under environmental conditions.
- Evaluate their effectiveness as a protective layer against pollutants through photocatalytic measurements.

The successful **candidate** will have a:

- Master's student in Materials Science, Chemistry, Engineering, Environmental Science, or Architecture with a relevant bachelor's degree.
- Interest in nanotechnology, heritage conservation, environmental protection, and advanced characterization techniques.
- Experience in the synthesis and characterization of nanomaterials. Some knowledge of photocatalysis would be an advantage.
- Ability to work in a laboratory and analyze data.
- Proficiency in English.

We promote teamwork in a diverse and inclusive environment and welcome all kinds of applicants regardless of age, disability, gender, nationality, race, religion, or sexual orientation.

The position is expected to start in 24/03/2025 and for a total length of up to 5 months (24/03/2025 - 22/09/2025) in the Nanomaterials Group

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

- a. A complete CV
- b. A cover letter and at least two reference letters grouped in a single PDF file

The **deadline** for applications is **10/03/2025**.

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.