

Research fellowship on: Nanostructured materials for thermoelectric and photocatalytic applications (in the framework of the activities of Spoke 1 of the PNRR iNEST Project, Interconnected North-East Innovation Ecosystem - Implementing Entity: University of Padua CUP: H43C22000540006

The present document in English is to be considered as a mere summary of the main provisions of the notice of competition which is available in Italian at the following ([link](#)) The text in Italian is the official text of the notice of competition for all legal intents and purposes and, in the event of non-conformity with the present document, it shall prevail.

Description

The CESA Center at Università Ca' Foscari Venezia, in charge of the administrative management of the above mentioned project, invites applications for a fellowship in:

Title: Nanostructured materials for thermoelectric and photocatalytic applications

SSD and/or sector: ING-IND/22, CHIM/03

Scientific coordinators and tutors: Alberto Vomiero and Elisa Moretti

Abstract:

The aim of the project is to develop innovative nanostructured materials based on transition metals and rare earth elements (powders, thin films, nanowires) through engineered electronic band structure, for several thermoelectric and photocatalytic applications, among which:

- water splitting,
- p-n junctions for photodetection and light photoconversion.

The research may be carried out in English

The fellowship is intended to provide the successful candidate with the opportunity to pursue his/her own research while benefiting from the range of expertise at Università Ca' Foscari Venezia.

Who can apply

Prospective candidates are expected to hold a PhD and a scientific-professional curriculum suitable for carrying out the research described in this call.

Ca' Foscari encourages applications from researchers with positive evaluation in all the criteria in individual proposals such as Marie Skłodowska Curie Actions - Individual Fellowships/ERC Starting Grants/FIRB (Italian Fund for basic research investments)/SIR (Scientific Young Independence Research) or similar.

Researchers having successfully completed Marie Skłodowska Curie Actions - Individual Fellowships/ERC Starting Grants/FIRB (Italian Fund for basic research investments)/SIR (Scientific Young Independence Research) or similar funded projects are warmly encouraged to apply.

The following are considered preferential qualifications:

a- specialization diplomas and certificates of attendance at postgraduate specialization courses, obtained both in Italy and abroad, the performance of documented research activities carried out with public and private entities both in Italy and abroad;

b- scientific publications, invited talks, oral talks and posters at international conferences, patents, other dissemination activities, involvement in research projects, awards. Other merits are the competences in: synthesis of nanomaterials through hydrothermal, solvothermal, exfoliation and CVD techniques for application in hydrogen production and photoconversion; analytical tools for nanomaterials, including microscopy, spectroscopy, diffraction.

Duration of contract: twenty-four months (approximately starting: in February 2023)

Stipend: The research fellowship amounts to 40,534.00 Euros, including taxes and social charges

Deadline for submission of applications: December 15, 2022, 12.00 noon CET.

How to apply:

Candidates must submit:

1. The application form
2. A motivation letter (max 1 page) along with their CV in European format, duly dated and signed, both enclosed as a one single.pdf file. ([link](#))
3. A copy of a valid identity document (either Identity Card or Passport);
4. (If available) Evaluation Summary Reports of Marie Skłodowska Curie Actions - Individual Fellowships/ ERC Starting Grants/FIRB (Italian Fund for basic research investments)/SIR (Scientific Young Independence Research) individual proposals having passed all the evaluation thresholds;
5. (If available) Details of Marie Skłodowska Curie Actions - Individual Fellowships, ERC Starting Grants, FIRB (Italian Fund for basic research investments)/ SIR Scientific Young Independence Research funded projects;
6. A declaration of availability to hold the interview online (template available at this [Link](#)), which is to be emailed to: inest_pnrr@unive.it
7. Any other documents, qualifications and publications deemed relevant for the selection procedure (See the notice at this [link](#)).

Templates for the above mentioned documentation are available on the University's website ([link](#)).

How to submit your application

Applications must be submitted online, exclusively through the procedure that can be entered at the following link:

<https://apps.unive.it/domandeconcorso-en/accesso/inest15122022materiali>

After submitting the application, the candidate will receive a submission number and an e-mail acknowledging receipt of his/her application.

The candidate can, if necessary, access the procedures and update uploaded data and materials via the link provided by the e-mail. Updates are only accepted before the deadline of **December 15, 2022, 12.00 noon CET**.

Please note that the candidate can contact the University for any support needs until 24 hours prior to the deadline.

In case of a high number of applications and / or weight of the materials uploaded by the candidates the system might become slower, therefore it is suggested not to start the application process close to the deadline.

NB: The University does not take on responsibility for wrong or late communication of addresses, nor for any communication problem not depending on the University.

Evaluation

Up to 100 points, specifically:

For qualifications and publications, from 0 up to 60 points (42 points is the minimum score for admission to the interview)

For the interview, from 0 up to 40 points (28 point is the minimum score for passing the interview)

Selection procedure

Interviews will take place online on December 21st, 2022, at 12.00 noon CET.

The list of candidates admitted to the interview together with notice of any postponements, or changes in the time of the interview, will be announced on **December 20th, 2022** by means of a notice that will be published at the following [link](#). **It is the candidate's responsibility to check the admission results and, if admitted, to show up at the required date and time.**

The interview aims to ascertain expertise on the following topics:

- CV of the candidate
- Previous experience in the field of nanomaterials for energy
- Validation of the competences for the development of the project
- Italian language assessment for foreign candidates



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Università
Ca' Foscari
Venezia

Information and contacts

Candidates may find further details about the application process and the research project in the official call published at the following ([link](#))

For further information please contact CESA, email: inest_pnrr@unive.it