

JOB VACANCY ANNOUNCEMENT

VAC-2024-54 – Geotechnical PhD position on physical modelling of drying effects on soil investigation technologies (FPI 2023)

Number of places: 1

Category: PhD Student

Workplace: Barcelona, Campus Nord UPC

Salary (gross): 19.479,01 €¹

Weekly working hours: 40h/week

Contract type: PhD

Duration: 4 years

Planned start date: February 1st 2025 as maximum²

Functions to be developed:

A doctoral thesis in the framework of the research project entitled MODEST: MOdelling Drying Effects on Soil investigation Technologies, with reference PID2023-149935OB-I00. Principal investigators: Prof. Marcos Arroyo Alvarez de Toledo and Prof. Alberto Ledesma Villalba.

The candidate will for part of a team working on a project “Modelling drying effects on soil investigation technologies (MODEST)”. The candidate will work at the geotechnical laboratory at UPC adapting an existing environmental calibration chamber perform miniature CPTu tests and extend and exploit the existing database of controlled drying test.

Additional information about the project is available at: CIMNE RTD Project: [MODEST](#).

The candidate will join the research group of Geomechanics: Geomechanics and Hydrogeology

¹ The first annual salary is 19.479,01 € and the second, third and fourth annual salary will be 24.348,77 €.

² This date is subject to the adjustment of the final concession resolution.

This contract is financed by the announcement of Proyectos de Generación de Conocimiento 2023 of the Ministerio de Ciencia, Innovación y Universidades: Proyectos de Generación de conocimiento 2023| Agencia Estatal de Investigación (aei.gob.es)

Required skills:

- The candidate must have a Master's degree (or equivalent) in Civil or Geotechnical Engineering; and to be in disposition to be enrolled in a PhD program in the moment of contract formalization.
- English language at a working level (written & spoken)

Other valued skills (not mandatory):

- Experience in geotechnical laboratory, particularly with physical models
- Experience and / or knowledge of site investigation technology, particularly CPTu
- Knowledge of unsaturated soil mechanics
- Knowledge of statistics
- Programming skills (Matlab, Python)
- Familiarity with image analysis software
- Familiarity with the local languages (Catalan and/or Spanish)

Qualification system:

The evaluation process must comply with the following criteria and sub-criteria:

1. Academic and/or scientific-technical background of the candidate (up to 50 points).
 - Scientific-technical contributions (up to 45 points). The candidate's academic record and other curricular merits will be evaluated, as well as their suitability to the tasks to be performed based on the candidate's training and professional experience.
 - Mobility and internationalization (up to 5 points). The relevance and impact of the candidate's stays in national and international centers and/or in the industrial sector on his/her research career will be assessed, taking into account the prestige of the entity receiving the stay and the activity carried out therein.
2. Criterion 2. Adequacy of the candidate to the research activities to be developed (up to 50 points). The suitability of the person to the program, project or research activities to be carried out will be assessed according to his/her previous training and experience. For this purpose, the added value that the completion of the project will represent for his/her research career will be taken into account, as well as the value contributed to the center and to the receiving team.

Candidates must complete the "*Application Form*" form on our website, indicating the reference of the vacancy and attaching the required documents.

The deadline for registration to the offer ends on November 22nd, 2024 at 12 noon.

The preselected candidates may be requested to send the documentation required in the "Requirements" and "Merits" sections, duly scanned, and may be called to go through selection tests (which might be of eliminatory nature) and / or personal interviews.

Commitment to inclusivity:

At CIMNE, we champion workplace equity, diversity, and inclusion. We're committed to fostering a culture where everyone can thrive, leveraging diverse talents and backgrounds. We welcome all applicants regardless of color, religion, gender, origin, abilities, gender identity, sexual orientation, pregnancy or any other characteristic. Join us in building a community that values, celebrates, and respects every individual.

HR Excellence in Research:

CIMNE welcomes and supports the principles of European Commission's [European Charter for Researchers](#) and the [Code of Conduct for the Recruitment of Researchers](#), embracing a transparent, attractive, and open labour market in research. The centre's Human Resources Strategy for Researchers (HRS4R) includes an action plan with actionable short and long-term actions to support a high-quality working environment for all. Further information can be found [here](#).

(*It is mandatory to provide the CV in the official form of the Spanish Ministry, which can be downloaded from the following link: <https://www.cimne.com/cvdata/cntr2/spc2/dtos/mdia/People/CV-abreujat.pdf>)

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