

ANNOUNCEMENT FOR PROVISION OF THE WORKPLACE

VAC-2022-88 – Programmer for code refactoring and optimization

Number of places: 1

Category: Research Engineer

Workplace: Campus Nord UPC, Barcelona

Salary (gross): according to the salary categories of the centre

Function to be developed:

The tasks will be carried out within the framework of the research project *MAKE-UP-ANURA3D: Towards a friendly and efficient Anura3D open source code based on the material point method for design and geotechnical analysis* (Ref: PDC2022-133222-I00) funded by the MCIU: Ministry of Science, Innovation and Universities.

Anura3D open-source software developed (in Fortran, Intel Compiler 2018) by the international MPM Research Community (www.anura3d.com) for advanced numerical modelling of soil-water-structure interaction problems in the field of geotechnical engineering. We are looking for a programmer to join the team of developers to improve the source code and refactor it, in order to enhance its readability, and to implement solutions for its optimization.

The selected person will be in charge of:

- Reviewing the Anura3D code
- Proposing and analysing processes and methods for code refactoring and optimization.
- Interacting with the members of the developer team to define the most appropriate strategies.
- Implementing Anura3D refactoring and optimization developments.

Recipients:

- Graduates in computer engineering or computer science or other sciences where programming is learned.

Requirements:

- Advanced knowledge of programming
- ~~Fluency in English and Spanish~~
- Capacity for teamwork
- Problem-solving skills
- Ability to structure proposals

Other valued skills (not mandatory):

- Programming knowledge in Fortran
- Experience using code repositories
- Experience in team software development

Qualification system:

First, requirements and merits will be assessed with a maximum grade of 100 points. In order to obtain this grade, the values obtained in the following sections will be added:

- Academic degrees: 20%
- Formation and further education: 30%
- Professional experience: 20%
- English/Spanish language skills: 10%
- Selection tests and interview: 20%

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

The term for submitting the applications is until definitive coverage of the position.

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

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