

ANNOUNCEMENT FOR PROVISION OF THE WORKPLACE

VAC-2023-51 – Research Engineer in Computational Fluid Dynamics

Number of places: 1

Category: Research Engineer – RENG 5

Workplace: Barcelona

Salary (gross): 22.219,99 €

Weekly working hours: 40h/week

Contract type: Temporary

Duration: 5 months

Functions to be developed:

- Validation of the face-centred finite volume method with 2D benchmarks of incompressible laminar flows (steady and transient).
- Validation of the face-centred finite volume method with 2D benchmarks of incompressible turbulent flows (steady and transient), solved using RANS equations and Spalart-Allmaras model.
- Integration of PETSc in the face-centred finite volume library.
- Validation of the resulting integrated library on 3D benchmarks of incompressible flows.

Required skills:

- Master degree (or equivalent) in computational science and engineering, applied mathematics, computational mechanics, or closely related field.
- Knowledge of finite volume methods, incompressible flows and turbulence modelling.
- Excellent programming skills and proficiency in Fortran.
- Knowledge of parallel computing (MPI and OpenMP) and high-performance computing libraries (PETSc, MUMPS, PARDISO, ...).
- Written and oral proficiency in English.

Other valued skills (not mandatory):

- Authorship or co-authorship of journal publications and contributions to international conferences will be positively evaluated.

Qualification system:

The requisites and merits will be evaluated with a maximum note of 100 points. Such maximal note will be obtained summing up the following points:

- **Publication and career track:** 30%
- **Previous research and academic experience in the field of the position:** 30%
- **Programming skills:** 20%
- **Language skills:** 10%
- **Communication/Teaching skills:** 10%

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 September 5th, 2023 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.

This contract is part of the project I+D+i PID2020-113463RB-C33, financed by MCIN/AEI/10.13039/501100011033/.

