Inici > 366_21_CASE_PT_R2

366_21_CASE_PT_R2

Job Reference

366_21_CASE_PT_R2

Position

Modelling and simulation of a chemical reactor (R2)

Data de tancament

Dimarts, 16 Novembre, 2021
Reference: 366_21_CASE_PT_R2
Job title: Modelling and simulation of a chemical reactor (R2)

About BSC

The Barcelona Supercomputing Center - Centro Nacional de Supercomputación (BSC-CNS) is the leading supercomputing center in Spain. It houses MareNostrum, one of the most powerful supercomputers in Europe, and is a hosting member of the PRACE European distributed supercomputing infrastructure. The mission of BSC is to research, develop and manage information technologies in order to facilitate scientific progress. BSC combines HPC service provision and R&D into both computer and computational science (life, earth and engineering sciences) under one roof, and currently has over 700 staff from 49 countries.

Look at the BSC experience:
BSC-CNS YouTube Channel
Let's stay connected with BSC Folks!

Context And Mission
The present project aims to provide further understanding on the physico-chemical conditions and flow dynamics taken place in a protein purification chemical reactor, and evaluate the influence of the process conditions on the quality of the precipitation process. The reactor model will mainly address the influence of the environmental variables (humidity, pH, temperature, ethanol concentration and agitation) on the purification process, while a simple model for precipitation will be used to simplify the calculations.

The research team that the applicant will be involved is the Propulsion Technologies Group at CASE Department of BSC. The team is a multidisciplinary group with researchers from all disciplines and with strong background in Computational Fluid Dynamics (CFD) and High-Performance Computing. The team is involved in several EU and industrial projects related to this topic, where the successful activities and the publications on highly ranked scientific journals give the proved expertise.

**Key Duties**

- The main duties include the development of a computational platform based on HPC to investigate the physico-chemical conditions describing the purification process of proteins.

**Requirements**

- **Education**
  - The candidate should hold a PhD Degree in Chemistry, Physics, Aerospace or Mechanical Engineering with background in fluid mechanics, multiphase flow and chemistry.

- **Essential Knowledge and Professional Experience**
  - General knowledge on fluid mechanics, LES, numerical methods, and chemistry are expected.

- **Additional Knowledge and Professional Experience**
  - Computational skills and parallel programming for HPC are not necessary, but will be considered an asset.

- **Competences**
  - Ability to work independently and make decisions
  - Fluency in English is essential, Spanish is welcome.

**Conditions**

- The position will be located at BSC within the CASE Department
- We offer a full-time contract, a good working environment, a highly stimulating environment with state-of-the-art infrastructure, flexible working hours, extensive training plan, tickets restaurant, private health insurance, fully support to the relocation procedures
- **Duration:** Temporary - 12 months renewable
- **Salary:** we offer a competitive salary commensurate with the qualifications and experience of the candidate and according to the cost of living in Barcelona
- **Starting date:** 01/11/2021
Applications procedure and process

All applications must be made through BSC website and contain:

- A full CV in English including contact details
- A Cover Letter with a statement of interest in English, including two contacts for further references - Applications without this document will not be considered

In accordance with the OTM-R principles, a gender-balanced recruitment panel is formed for every vacancy at the beginning of the process. After reviewing the content of the applications, the panel will start the interviews, with at least one technical and one administrative interview. A profile questionnaire as well as a technical exercise may be required during the process.

The panel will make a final decision and all candidates who had contacts with them will receive a feedback with details on the acceptance of rejection of their profile.

For more information follow this link

Deadline

The vacancy will remain open until suitable candidate has been hired. Applications will be regularly reviewed and potential candidates will be contacted.

OTM-R principles for selection processes

BSC-CNS is committed to the principles of the Code of Conduct for the Recruitment of Researchers of the European Commission and the Open, Transparent and Merit-based Recruitment principles (OTM-R). This is applied for any potential candidate in all our processes, for example by creating gender-balanced recruitment panels and recognizing career breaks etc.

BSC-CNS is an equal opportunity employer committed to diversity and inclusion. We are pleased to consider all qualified applicants for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, disability or any other basis protected by applicable state or local law.

For more information follow this link

This position is reserved for candidates who meet the requirements and have the legal status of disabled persons with a degree of disability equal to or greater than 33%. In case there are no applicants with disabilities that meet the requirements, the rest of the candidates without declared disability will be evaluated.

Barcelona Supercomputing Center - Centro Nacional de Supercomputación

Source URL (retrieved on 8 nov 2021 - 18:45): https://www.bsc.es/ca/join-us/job-opportunities/36621caseptr2