

PhD position within multiphase flow modelling of fixed bed reactors

Applications are invited for a fixed term (three years) PhD position at the University of Coimbra. The primary objective of this PhD position will be to develop Computational Fluid Dynamic models for fixed bed reactors. Work will be completed as part of a European Union sponsored project with a consortium of academic and industrial partners which aims to develop a multiscale simulation platform for designing efficient processes for energy conversion with integrated CO₂ capture. See <http://www.sintef.no/Projectweb/NanoSim/> for more information on the project.

The PhD candidate will work closely with other specialists involved in the project in order to contribute effectively to the multiscale simulation platform being developed. In particular, the position will feature close collaboration with multiphase flow modelling experts at SINTEF Materials and Chemistry (Norway) which is also leading the project.

Please see the following links for more information about participating institutions:

University of Coimbra: <http://www.uc.pt/en>

SINTEF: <http://www.sintef.no/Home/Materials-and-Chemistry/>

Selection Criteria

Applicants are strictly advised to address the following selection criteria.

Essential:

- A Master's degree in Chemical Engineering, Mechanical Engineering or related fields
- Experience with Computational Fluid Dynamics modelling
- A high level of personal responsibility and initiative
- Excellent communication skills with both technical and non-technical staff
- Excellent knowledge of written and spoken English

Desirable

- Experience in using the commercial CFD package ANSYS FLUENT
- Experience with granular flow modelling
- A basic understanding of gas/solid reactors

The successful candidate will be employed full-time by the University of Coimbra for a fixed period of three years. The candidate will spend two years of the project time in Norway and will be based at SINTEF Materials and Chemistry, Trondheim.

Within the application deadline, applicants should submit a cover letter directly addressing the above mentioned Selection Criteria, a CV, certified copies of certificates of education and other relevant documents, list of publications and names of three references with e-mail addresses and phone numbers.

Submission of the application: Applications should be sent by electronic mail to: rqfgrants@eq.uc.pt

Should you require more information on this position please contact Prof. Rosa Quinta-Ferreira via email: rosaql@eq.uc.pt or Dr. Shahriar Amini via email: shahriar.amini@sintef.no. No applications should be sent to these email addresses.

Application deadline: July 28th 2014.