

Jobbnorge-ID: 97331  
Søknadsfrist: Avsluttet  
Nettside:  
Omfang:  
Varighet:

## PhD position in Multi-Scale Modelling

A PhD position is available in the Systems Engineering Group at the Department of Chemical Engineering. The appointment has a duration of 3 years with the possibility of until 1 year extension with 25% teaching duties in agreement with the department.

The position is financed by MoDeNa, a Framework 7 EU project dedicated to multi-scale modelling involving the universities Prague, Trieste, Turin, TU Eindhoven, and Stuttgart and the companies BASF and WIKKI, latter being one of the main contributors to OpenFoam CFD software and DIN (Deutsches Institute für Normung). The project's objective is to integrate the computational tools required to compute the properties of polymer foams from the quantum mechanics up to the mechanical properties. NTNU is the leader of the project.

The theme of the PhD research is *Multi-scale Modelling*. We are seeking a person with good background in physics and computer science. Our part of the project consists of two major parts: 1) Nonlinear design of experiments, where the experiments are the computations of lower-scale models and the target model is the meta-model for the larger scale. 2) Generation of ontologies for the various scales aiming at a global representation for all scales working towards a standard to be administrated by DIN.

The applicant must have an MSc (or equivalent) in physics, chemical engineering or a degree in nano-technology with a strong emphasis on physics and a documented background in applied computer science. Experience in the use of CFD and computational thermodynamics code will be considered an advantage but not a requirement.

The successful candidate should be creative, with a strong ability to work problem oriented. He/she should also enjoy interdisciplinary research and take keen interest in learning and working in teams. Females are encouraged to apply.

The regulations for PhD programmes at NTNU state that a Master degree or equivalent with at least 5 years of studies and an average grade of A or B within a scale of A-E for passing grades (A best) for the two last years of the MSc is required and C or higher of the BSc. Candidates from universities outside Norway are kindly requested to send a Diploma Supplement or a similar document, which describes in detail the study and grade system and the rights for further studies associated with the obtained degree: [http://ec.europa.eu/education/lifelong-learning-policy/ds\\_en.htm](http://ec.europa.eu/education/lifelong-learning-policy/ds_en.htm)

The position requires spoken and written fluency in the English language. Applicants from non-English-speaking countries outside Europe must document English skills by a TOEFL test. Approved tests are TOEFL, IELTS and Cambridge Certificate in Advanced English (CAE) or Cambridge Certificate of Proficiency in English (CPE).

The appointment of the PhD fellows will be made according to Norwegian guidelines for universities and university colleges and to the general regulations regarding university employees. Applicants must agree to participate in organized doctoral study programs within the period of the appointment and have to be qualified for the PhD-study.

The position adhere to the Norwegian Government's policy of equal opportunity regardless of ethnicity and gender.

The appointment will be made according to the general regulations regarding university employees. PhD research positions are remunerated according to the Norwegian State salary scale.

Starting date 1. January - 1. February 2014

Further information can be obtained from professor Heinz A Preisig, Tel. +47 73 59 28 07, E-mail: [heinz.a.preisig@ntnu.no](mailto:heinz.a.preisig@ntnu.no)

Further information about the Department can be found at <http://www.ntnu.edu/chemeng>

Applications with CV, certificates from both Bachelor and Master, possible publications and other scientific works, certified copies of transcripts, (certified copies of documentation on English language proficiency, e.g. TOEFL, IELTS, etc.) and reference letters should be submitted electronically through this page.

**Applications submitted elsewhere will not be considered.**

The reference number of the position is: **NT- 74/13** Application deadline: **November 11, 2013**

### Tilleggsinformasjon

**Arbeidssted:**