

NTNU - knowledge for a better world

The Norwegian University of Science and Technology (NTNU) creates knowledge for a better world and solutions that can change everyday life.

Postdoc position in implementation of model predictive control in absorption based CO₂ capture plants

A Postdoc position is available for a period of 2 years at the Department of Chemical Engineering. The position will be financed partly by the Climit-Demo project DOCPCC2 and partly by the ERA-NET ACT project ALIGN-CCUS. While the former project is a small national project in Norway with the four partners SINTEF, NTNU, Cybernetica, and TCM (Test Center Mongstad), the latter project is a large project with 31 partners from 5 countries in Europe (Norway, Netherlands, UK, Germany, and Romania) covering activities related to all aspect of the CCUS (Carbon Capture Utilization, and Storage) chain.

Information about the department

The current research fields at the Department includes biorefinery and fiber technology, catalysis, colloid and polymer chemistry, environmental engineering and reactor technology and process systems engineering. Information about the department is available on the Departments homepage: <http://www.ntnu.edu/chemeng>.

Information about the research group can be found at: <http://www.ntnu.edu/chemeng/research/reactor>

Job description

The main objective of this project is to participate in the implementation of model predictive control and real time optimization for post combustion carbon capture. Together with Cybernetica AS and SINTEF, NTNU have already implemented model predictive control in the amine pilot plant at TCM and in the Tiller pilot. The next steps are to adapt the dynamic model and the applications to new absorbents and assist in implementation of economic MPC.

Travels to TCM during their test campaign to assist during the test there and to meetings in Europe (within ALIGN-CCUS) for presentation of results are also parts of the activities.

Qualifications

The applicant must have a PhD degree in Chemical Engineering, Control Engineering Or Process Systems Engineering, and specifically interested in process modelling, simulation, optimization and process control.

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. He/she will need to work both independently and cooperate with other group members.

Further information can be obtained from Professor Magne Hillestad (magne.hillestad@ntnu.no), +47 73594122 Department of Chemical Engineering, NTNU.

Terms of employment

The appointment of the Postdoc will be made according to Norwegian guidelines for universities and university colleges and to the general regulations regarding university employees.

NTNU's personnel policy objective is that the staff must reflect the composition of the population to the greatest possible extent.

The position as Postdoc is remunerated according to the Norwegian State salary scale. There is a 2% deduction for superannuation contribution.

The application

Applications with CV, certified copies of degrees and transcripts, list of possible publications and other scientific works, and reference letters should be submitted electronically through this page.

Applications submitted elsewhere will not be considered.

The reference number of the position is: **NV-126/17**

Application deadline: 19 Jan 2018

