Jobbnorge-ID: 99682
Søknadsfrist: Closed
Nettside:
Omfang:
Varighet:

PhD grant position at the Department of Engineering Cybernetics: Artificial Pancreas Trondheim / Medical Technology

The Department of Engineering Cybernetics at NTNU has recently established the Artificial Pancreas Trondheim (APT) research group in cooperation with St Olav's Hospital and Faculty of Medicine at NTNU. APT is a cross-disciplinary group of researchers with high competence in the fields of control engineering, biomedical engineering, biosensors, applied clinical research, endocrinology, anesthesia and intensive care medicine, pharmacology, biotechnology, mathematical modelling, biochemistry and chemometrics, as well as collaboration with relevant biosensor industry.

The long-term aim of APT's research is to develop a robust closed-loop glucose control system for patients with diabetes mellitus type 1 and 2 and for intensive-care patients, and to commercialize an artificial pancreas based on these results. A novel strategy for glucose measurement and insulin infusion, developed by the group, yields significantly altered system dynamics as compared to current state-of-the-art approaches.

A PhD fellowship is thus available at the Department of Engineering Cybernetics related to the resulting control problem:

> *Development of control algorithms and safety mechanisms for closed-loop glucose control in patients with diabetes mellitus type 1 and 2 and in intensive-care patients. Computer simulations, animal trials and human studies will be part of the work.*

We seek a highly motivated fellow with a Master's degree in engineering cybernetics, control engineering, biomedical engineering, electronics engineering or other relevant disciplines. A certain level of control engineering competence is required. Experience and/or competence related to medicine may be considered beneficial. Master's students graduating by the end of June 2014 may apply.

The position is funded by the Liaison Committee between the Central Norway Regional Health Authority (RHA) and the Norwegian University of Science and Technology (NTNU).

PhD fellowships at NTNU are normally appointed for three years. An extra year may in some cases be offered to candidates who agree to have a 25% load as teaching assistant.

Publications and any other work, which the applicant wishes to be taken into account, should be enclosed. Joint works will be considered provided that a short summary outlining the applicant's contributions is attached.

Excellent English skills, written and spoken, are required. Applicants from non-English speaking countries outside Europe must present an official language test report. The acceptable tests are TOEFL, IELTS, and Cambridge Certificate in Advanced English (CAE) or Cambridge Certificate of Proficiency in English (CPE). Minimum scores are:

- TOEFL: 600 / writing 4.5 (paper-based test), 92 / writing 22 (internet-based test)
- IELTS: 6.5, with no section lower than 5.5 (only Academic IELTS test accepted)
- CAE/CPE: grade B or A.

The application should contain information of educational background and prior training, exams, and work experience. Certified copies of academic diplomas and transcripts must be attached.

It is a prerequisite that the PhD scholar applies for and is granted admission to the NTNU PhD studies as soon as possible after employment. NTNUs PhD-rules require 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).

Applicants from universities outside Norway are kindly requested to send a diploma supplement or a similar document, which describes in detail the study and grading system and the rights for further studies associated with the obtained degree:

http://ec.europa.eu/education/policies/rec_qual/recognition/diploma_en.html

PhD fellows must fulfill the formal requirements to be accepted as a PhD candidate at NTNU and must agree to participate in organized doctoral study programs within the period of the appointment. The successful applicants must agree to the conditions laid down for public employees. A contract will be drawn up regarding the period of appointment and work-related duties.

See http://www.ntnu.edu/ime/research/phd for more information.

The appointment is at code 1017, salary level 50 - 62 in the national salary scheme, gross NOK 420 800 - 518 200 per annum of which 2% is deducted for the State Pension scheme.

The appointment will be made in accordance with current regulations with supplementary rules in force giving guidelines for scholarship appointments in universities and university colleges.

The position adheres to the Norwegian Government’s policy of balanced ethnicity, age and gender. It is an objective to increase the number of females in scientific positions. Female applicants are therefore encouraged to apply.

For more information, please contact:

- Associate Professor Øyvind Stavdahl. E-mail: Oyvind.Stavdahl@itk.ntnu.no
- Postdoctoral fellow Anders Fougner. E-mail: Anders.Fougner@itk.ntnu.no

Applications are to be submitted electronically through this page. Preferably, we want the attachments in one file.

Applications should be marked IME 002-2014.

Application deadline: 28 February 2014.

Tilleggsinformasjon

Arbeidssted: