

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.

Postdoctoral Fellow in Optimization of logistics systems with autonomous vessels

There is a temporary position available at the Department of Industrial Economics and Technology Management as Postdoctoral Fellow in optimization of logistics systems with autonomous ships for a period of two years (possibly extended to three including one year of duty work for the department). The position as a Postdoctoral Fellow is a fixed-term position with the primary goal of qualifying for work in professional academic chair positions.

The Department of Industrial Economics and Technology Management has employed 23 Professors, 9 Associate Professors, 7 Post Doctors and 27 Ph.D. candidates. The Department is organized into the following six sections:

- | Managerial Economics, Finance and Operations Research
- | Safety, Health and Environment
- | Operations Management
- | Strategy and Business Development
- | Expert in teams
- | Economics and Management (Gjøvik)

The Postdoctoral fellow will be a part of Section for Managerial Economics, Finance and Operations Research.

Research Project: Shifting cargo to sea with Autonomous Transport Systems (SATS)

The Postdoctoral fellow will be employed as a part of the SATS research project, which is a collaboration between SINTEF Ocean, NTNU and the Norwegian School of Economics. SATS asks in which segments of shipping autonomous vessels can be a contributing factor to enhance the competitiveness of maritime shipping, especially for environmentally friendly shipping and for maritime as a transport mode reducing the transport sectors total greenhouse gas emissions.

The research questions to be addressed by the Postdoctoral Fellow can be:

- | How to develop novel optimization models and methods for optimizing the design and operation of logistics systems with autonomous vessels
- | How to efficiently combine these optimization models with simulation models to capture the environmental uncertainty these systems are exposed to.
- | How can this integrated optimization and simulation framework efficiently be set up to make analyses of the effects on economy, service quality and environment from introducing autonomous vessels.

The Postdoctoral Fellow will work closely together with the other members of the project.

Qualifications

Applicants have to strictly address the following selection criteria:

- | Have a PhD degree within operations research/optimization, and with good knowledge in discrete optimization.
- | Be highly motivated and have a high level of personal responsibility, initiative, and ability to work in a project team.
- | Have excellent knowledge of written and spoken English.
- | Have the ability to work independently and to take initiatives.

In addition, it is desirable if the candidate has some of the following:

- | Relevant publications in discrete optimization
- | Experience with or formal education in transportation/logistics
- | Experience with using simulation (preferably in combination with optimization)
- | Experience with or formal education in economics

Salary and Working Conditions

The Postdoctoral Fellow is currently paid gross NOK 490900 per year, of which 2 % is deducted for the State Pension Scheme.

The appointment is in accordance with the regulations of State Employees and Civil Servants. We expect the employee to accept possible changes in work tasks, and to be present at, and available to, the institution.

The successful applicant will be employed full-time by NTNU for a fixed period of two years. The engagement is to be made in accordance with the regulations in force concerning State Employees and Civil Servants. A good working environment is characterized by diversity. We encourage qualified candidates to apply regardless of gender, disability or cultural background.

Anticipated commencement: 1. September 2018, or in agreement with the Department.

Application

Applications should include:

- | A motivation letter
- | A publication list
- | Relevant samples of publications (no more than five)
- | A CV with information on education, previous research experience, together with authorized documentation of certificates and study records.

Joint work will be evaluated. If it is difficult to identify the contributions from individuals in a joint piece of work, applicants should enclose a short descriptive summary of what he/she contributed to the work.

Information about the applicants may be open to public inspection as provided by the Freedom of Information Act.

Further information about the position may be obtained from Professor Kjetil Fagerholt, Department of Industrial Economics and Technology Management, NTNU, Trondheim. Email: kjetil.fagerholt@ntnu.no.

Application should be submitted electronically through Jobbnorge.

Application Deadline: 31.03:2018.

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