



Norges miljø- og
biovitenskapelige
universitet

Jobbnorge-ID: 99774

Søknadsfrist: Avsluttet

Nettside:

Omfang:

Varighet:

PhD-position in forest inventory/sampling-based applications of airborne LiDAR for biomass change estimation - ref.no. 14/00588

Department of Ecology and Natural Resource Management at the Norwegian University of Life Sciences (NMBU) has a three-year PhD position vacant related to estimation of change in forest biomass in sample surveys assisted by data from airborne LiDAR.

The Department of Ecology and Natural Resource Management (INA) has ca. 100 employees and undertakes teaching, research, and dissemination within the fields of biology and ecology, management of natural resources, renewable energy, nature-based tourism, and forest sciences. Currently the department has ca. 370 students in addition to about 60 PhD students. INA also offers courses and education to students affiliated with other departments at NMBU. The employees of the department are very active in their areas of expertise, both nationally and internationally, and have a high level of production of scientific papers, books, research reports, etc. For more information:

<http://www.umb.no/ina-en>

The project

The primary goals of this PhD project are to test and validate various methods for modelling of change in forest biomass using data from airborne LiDAR and to analyse the properties of various statistical estimators for change in forest biomass in regional sample surveys assisted by LiDAR. The project will be based on existing change data collected in field over a 5-year period as part of the national forest inventory for a region in Norway supported by corresponding acquisitions of airborne LiDAR data. The work will specifically focus on testing of various two-phase and two-stage sampling estimators for change as well as multiphase estimators supported by complete cover data from satellite remote sensing. Computationally intensive simulation methods for method validation will play a central role in the project. The research project is closely linked to other projects at the department and the candidate will cooperate with other PhD students and researchers. The supervisors at INA will be Professor Erik Næsset and Dr. Liviu Ene.

The project task

The position is an educational step towards a research career and should result in a PhD degree within the given time frame. The project may involve some fieldwork, in addition to data analyses and writing scientific articles for international publication. Some teaching at bachelor or master level and/or field assistance in related projects may be possible, extending the PhD time frame accordingly.

Qualifications

Applicants to the PhD position must have a Master's degree or equivalent in forestry or other relevant areas, with a good background and interest in statistics and handling of spatial data. Good skills in programming and math are preferred. Experience with airborne LiDAR data is seen as an advantage. The applicant should master both spoken and written English. A candidate that is creative, analytical, and highly self-motivated, and can document good collaborative skills has the necessary prerequisites for a successful PhD study.

Personal

A willingness to cooperate with other PhD students and researchers is essential. The candidate should function well in an international research environment. Creativity, analytical skills, and strong motivation are important. The candidate should be able to work independently.

NMBU is an equal opportunity employer and seeks to increase its number of female scientific employees. If a woman and a man are considered to have approximately equal qualifications, preference will be given to the female candidate.

NMBU offers

- An enjoyable and stimulating work environment
- Challenging work
- Good pension plan in the state pension fund
- Various welfare schemes

Salary

Salaries start at level 50, corresponding to NOK 420,800 per year (before tax).

Further information

For further information please contact Professor Erik Næsset, phone +47-64965734, e-mail: erik.naesset@nmbu.no. See also www.forestinventory.no

How to apply

The application should be submitted via the link: "Søk stillingen" on top of this web page by 20.02.2014.

Applications should be submitted electronically and include: a letter of intent, curriculum vitae, full publication list, copies of degree certificates and transcripts of academic records (all certified), and a list of two persons who may act as references (with phone numbers and email addresses). Publications should be uploaded electronically on the Jobbnorge website within the application deadline.

A compulsory contribution of 2 % is made to the Norwegian State Pension Fund. According to personnel policy objectives that the staff shall reflect the composition of the Norwegian population in general, both with respect to gender and cultural diversity, women and persons with a minority ethnic background in particular are encouraged to apply.

Tilleggsinformasjon

Arbeidssted: