



Global challenges regarding energy and climate change, the environment, health, food safety, technology and renewable solutions, use and conservation of land and natural resources, and development of the bio-economy, requires greater effort. NMBU is well equipped to conduct further research in these fields. NMBU's expertise spans entire value chains and includes both basic and applied research.

On 1 January 2014, the Norwegian School of Veterinary Science and the University of Life Sciences merged and became -NMBU, the Norwegian University of Life Sciences. NMBU has 1700 employees and 5200 students, and is currently located on two campuses - Ås, about 30 km south of Oslo, and Adamstuen in Oslo. In 2020, the new research- and education-building for veterinary science will be completed and all of NMBU will then be located at Campus Ås.

Further information about NMBU is available on www.nmbu.no

PhD scholarship in gravimetric geodesy - ref.no. 17/03979

The Faculty of Science and Technology at the Norwegian University of Life Sciences (NMBU) has allocated 4 PhD-positions (non-permanent full time for three years) in projects within the Strategic Research Program "Environmental effects on societal infrastructure - water" (2015-2018).

- 1 The present advertisement is for 1 PhD scholarship: "**Hydrological Models for Assessing Gravimetric Observations of Water Mass Fluctuations -ref 17/01896**"

The Faculty of Science and Technology (Realtek) has 130 employees, about 1,100 students and 60 PhD students. The faculty offers bachelor, master, and PhD degrees in natural sciences and engineering in the fields of environmental physics and renewable energy, building and architecture, hydraulic and environmental engineering, machine, process and product development, and geomatics, and degrees in teacher's education and pedagogics. The workplace is in Ås.

Research project

Hydrological Models for Assessing Gravimetric Observations of Water Mass Fluctuations. This project will investigate effects of hydrological mass variations (including contributions from ground water, soil moisture, snow, ice and ocean) on gravimetric observations. Terrestrial and satellite gravimetry allow observing these variations on different temporal and spatial scales and under different conditions of data sampling and observation geometry. The focus of the project is on improving reductions applied to the raw observation data and on separating different contributions to temporal gravity variations with the ultimate goal of comparing and possibly combining ground and satellite observations for applications in solid earth geophysics, hydrology, and climate research. The candidate will collaborate with REALTEK's research group in physical geodesy. The group has a state-of-the-art FG5 absolute gravimeter at its disposal and the candidate is expected to work extensively on FG5 data analysis. He/she is expected to take part in field work, plan and carry out observational campaigns related to the PhD project. He/she will collaborate with international partners (willingness for extended research visits is expected) as well as with scientists from hydrogeology and hydrological modelling on the institutional and national level.

Applicants are expected to submit a short essay identifying their research interests within the topic and approaches to solve them. A project description is available from bjorn.pettersen@nmbu.no and gerlach@keg.badw.de.

The successful candidate is expected to enter a plan for the progress of the work towards a PhD degree during the first months of the appointment, with a view to completing a doctorate within the PhD scholarship period.

Academic qualifications

The successful applicant must meet the conditions defined for admission to a PhD programme at NMBU. The applicant must have an academically relevant education corresponding to a five-year Norwegian degree programme, where 120 credits are at master's degree level. The applicant must have a documented strong academic background from previous studies, and be able to document proficiency in both written and oral English. For more detailed information on the admission criteria please see the [PhD Regulations](#) and the PhD programme description at the [Faculty of Science and Technology](#).

Required academic qualifications:

- 1 Master degree or equivalent in Geodesy, Geomatics, or other relevant disciplines, like Geophysics

Desired academic qualifications

- 1 Knowledge on data analysis, mathematical modelling and programming; knowledge of geophysical processes related to mass variations; knowledge of gravimetric observation methods and willingness to participate in field work.

Personal skills

Required personal skills

- | Ability for independent work displaying creativity and reflective thinking
- | Analytical and academic approach to research questions
- | Good collaborative/social skills
- | Proficiency in English, both written and spoken (please see English language requirements in PhD regulations at NMBU)

The main criteria for evaluating the applicants includes their academic records, and scientific capacity and achievements along the below outlined preferences; particularly originality, independence as well as ability to work in a team. Selected applicants will be invited for an interview or online interview as a part of the evaluation. The studies will be based at the Faculty of Science and Technology (REALTEK), NMBU, Campus Ås

NMBU offers:

- | An optimistic academic institution with focus on professional development, dissemination and competence.
- | An interdisciplinary and inclusive environment that provides exciting research- and development opportunities.
- | Daily contact with inspiring students and skilled colleagues.
- | Various welfare schemes.
- | Beautiful surroundings just outside Oslo.

Remuneration

The salary for PhD-scholarship start at wage grade 50 (equivalent to annual salary NOK 436 900) on the Norwegian Government salary scale upon employment and follow ordinary meriting regulations.

Employment is conducted according to national guidelines for University and Technical College PhD scholars.

Further information

Please contact Adjunct Professor Christian Gerlach at e-mail gerlach@keg.badw.de or Professor Bjørn R. Pettersen at e-mail: bjorn.pettersen@nmbu.no or the Faculty Administration, Anita H. Habbestad (Head of HR), email: anita.habbestad@nmbu.no

Application

To apply online for this vacancy, please click on the '**Apply for this job**' button above. This will route you to the University's Web Recruitment System, where you will need to register an account (if you have not already) and log in before completing the online application form.

Application deadline: 15.10.2017

Applications should include (electronically) 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 e-mail addresses). Publications should be included electronically within the application deadline. Applicants are expected to submit a short essay identifying their research interests within the topic and approaches to solve them. A project description is available from bjorn.pettersen@nmbu.no and gerlach@keg.badw.de. Please provide proof of English proficiency, if relevant.

Printed material which cannot be sent electronically should be sent by surface mail to Norwegian University of Life Sciences, Faculty of Science and Technology, P.O. Box 5003, NO-1432 Ås, within **15.10.2017**. Please quote reference number **17/03979**

If it is difficult to judge the applicant's contribution for publications with multiple authors, a short description of the applicant's contribution must be included.

A compulsory contribution of 2 % is made to the Norwegian Public Service Pension Fund. A good working environment is characterized by diversity. We encourage qualified candidates to apply, irrespective of gender, physical ability or cultural background. The workplace will if necessary be facilitated for persons with disabilities.

According to the Freedom of Information Act § 25 the list of applicants for this position may be made public irrespective of whether the applicant has requested that his/her name be withheld.

Jobbnorge ID: 142456, Deadline: 15.10.2017, Internal ID: 17/03979