

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.

1 PhD Research Fellowship Position within "Environmental Acoustics - Outdoor sound propagation" (IE 067/2018)

A PhD-position is available at the Acoustics Group, Department of Electronic Systems at the Norwegian University of Science and Technology. The position will be within the area "Environmental Acoustics - Outdoor sound propagation". The position will deal with the design of a long range outdoor sound propagation measurement technique.

[Department of Electronic Systems \(IES\)](#).

The PhD position is for up to 4 years with 25% work assignments for NTNU/IES.

Information about the department

The position is located at the Department of Electronic Systems ([IES](#)), part of the Faculty of Information Technology and Electrical Engineering (IE). IES has currently about 165 full-time employees spread across 45 professors/associate professors, 70 PhD students, 25 research associates/Post-Docs and 25 engineering/administration.

Since the research areas at IES include wireless systems, signal processing, underwater communication and environmental acoustics, IES offers a favorable environment for the research topic proposed.

Project description

The topic of the work is the development of a practicable measurement technique for quantifying short term long range sound attenuation and possibly impulse response in complex outdoor environments that feature parasitic noise sources, non-flat ground and obstacles, multiple propagation paths, arbitrary sound speed gradients and time variance. The focus is non-built areas in the framework of linear acoustics. The direct sight horizontal propagation distances of interest here are in the 200 m - 2 km range where signal-to-noise ratio is a major issue.

Qualifications

We seek a creative and enthusiastic candidate with an outstanding academic record. The candidate should have:

- MSc or equivalent degree in acoustics, signal processing, telecommunication or other relevant areas of physics and mathematics. Preference will be given to applicants with documented knowledge of the physics and modelling of wave propagation in inhomogeneous media and signal processing for communication.
- Relevant research or R&D experience
- Experience with laboratory/field work is required as well as demonstrated ability to develop technical solutions.
- Proficiency in programming is mandatory for implementing signal acquisition techniques and post-processing.
- Capacity to communicate in a clear and structured manner
- Fluency in English - written and oral

Applicants must be qualified for admission to a PhD study program at NTNU. See <http://www.ntnu.edu/ie/research/phd> for information about PhD studies at NTNU.

Applicants who do not master a Scandinavian language should provide evidence of good written and spoken English language skills. The following tests can be used as documentation: TOEFL, IELTS, Cambridge Certificate in Advanced English (CAE), or Cambridge Certificate of Proficiency in English (CPE). Minimum scores are:

- TOEFL: 600 (paper-based test), 92 (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

Please submit an application letter describing your motivation, relevant experience, skills and qualifications, and a brief research vision for the position (maximum 1 page) along with a CV, publication list, letters of reference and proof of fluency in the English language (if applicable) and certificates from both Bachelor and Master degrees.

Applicants 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.

Incomplete applications will not be taken into consideration.

Formalities

The appointment is made in accordance with the regulations of employment for PhD candidates issued by the Ministry of Education and Research, with relevant parts of the additional guidelines for appointment as a PhD candidate at NTNU. Applicants must participate in an organized PhD programme of study during their period of employment. The candidate appointed must comply with the regulations for employees in the public sector. In addition, a contract will be signed regarding the period of employment.

Applicants must be qualified for admission to a PhD study program at NTNU. See <http://www.ntnu.edu/ie/research/phd> for information about PhD studies at NTNU.

We can offer

- an informal and friendly workplace with dedicated colleagues
- academic challenges in a cross-disciplinary team
- attractive schemes for home loans, insurance and pensions through the Norwegian Public Service Pension Fund

For further information about the position, please contact Professor Guillaume Dutilleux, Acoustics Group, Department of Electronic Systems, Email: guillaume.dutilleux@ntnu.no

Salary conditions

The position is in code 1017 Research fellow, and are normally remunerated at gross NOK 436 900 before tax. There will be a 2 % deduction to the Norwegian Public Service Pension Fund from gross wage.

The Faculty of Information Technology and Electrical Engineering wants to attract outstanding and creative candidates who can contribute to our ongoing research activities. We believe that diversity is important to achieve a good, inclusive working environment. We encourage all qualified candidates to apply, regardless of the gender, disability or cultural background.

Under Section 25 of the Freedom of Information Act, information about the applicant may be made public even if the applicant has requested not to have his or her name entered on the list of applicants.

About NTNU

NTNU had more than 40000 registered students (33000 in Trondheim) in 2017, of which more than 3400 were international students and about half study technology and natural sciences.

About Trondheim and Norway

Due to the Gulf Stream, Trondheim enjoys a milder climate than its latitude would suggest. For those who enjoy outdoor life, Trondheim offers a lot of opportunities.

Norway performs very well in terms of well-being and unemployment is very low. <http://www.oecdbetterlifeindex.org/countries/norway/>

Start-up date for the position is 15.08.2018 or before.

Application deadline: 01.06.2018

Jobbnorge-ID: 151121, Søknadsfrist: Avsluttet