PhD Research Fellow in ICT with Specialization in Mobile Radio Communications

About the position

A full-time (100%) position as a PhD Research Fellow in Information and Communication Technology (ICT) with specialization in mobile radio communications is available for a period three years at the University of Agder, Faculty of Engineering and Science. The position is affiliated to the Department of ICT located at Campus Grimstad in Southern Norway. The starting date is as soon as possible or to be negotiated with the Faculty.

The Department of ICT has three large and active research groups in ICT, including 12 professors, 15 associate professors, 10 assistant professors and 15 research fellows. The department pursues a variety of research interests, focusing especially on mobile radio communications, wireless sensing, embedded systems, artificial intelligence, data analytics, crisis management, eLearning, and eHealth. The department has successfully led many large-scale research projects funded by the Research Council of Norway; the EU research programmes FP7 and H2020, as well as national and international industries.

Research topics

This open position is intended to carry out fundamental research in the area of propagation and channel modelling with applications in human activity recognition using commodity Wi-Fi devices and radar sensors. The research is carried out in close cooperation with partners from the healthcare sector, industry, and academia. The focus will be on unfolding the potential of radio-frequency (RF) sensing on the recognition and localization of human activities in indoor environments. Potential research topics include, but are not limited to:

- Developing a mathematical framework for the characterization of non-stationary multiple-input multiple-output (MIMO) radio channels for activity recognition;
- Measurement, modelling, and time-frequency analysis of non-stationary MIMO channels in the presence of active persons;
- Radar sensing and Wi-Fi sensing of daily life activities;
- Activity recognition based on micro-Dopper signatures;
- Radar signal processing for human activity recognition.

Required qualifications

Applicants must hold a master (or Dipl.-Ing.) degree in ICT, electrical engineering or a similar/related field and document expertise in areas relevant to the position. This year’s candidates who are in the closing stages of their master’s (or Dipl.-Ing.) degree can also apply. A high level of oral and written proficiency in English is required. The working language is English.

Furthermore, the applicant must have profound knowledge in at least four of the following fields:

- Mathematics, especially in probability theory, stochastic processes, and analysis
- Signal analysis and processing
- Propagation and channel modeling
- Physical layer aspects of mobile radio communications
- Radar techniques and/or Wi-Fi sensing
- Computer programming with MATLAB.

It is a prerequisite for employment that the candidate is to be admitted to UiA's PhD programme at the Faculty of Engineering and Science, specialization in ICT, within three months of appointment. More information about the programme and a complete list of admission requirements can be found here.

Applicants from some countries must document their English proficiency through an English test (TOEFL, IELTS or CEFR). Please check this website to see if an English test is required. Please note that the English test requirement applies to applicants from most countries according to the list mentioned above. No other English tests or certificates will be approved, and certifications/statements cannot replace an English test.

Further provisions relating to the positions as PhD Research Fellows can be found in the Regulations Concerning Terms and Conditions of Employment for the post of Post-Doctoral Research Fellow, Research Fellow, Research Assistant and Resident.

Applications from applicants who already hold a PhD will normally not be considered.

Applicants will be assessed on the basis of academic background and results, attainment, and any previous research and development work. Personal qualities and suitability for the position will be emphasised.

Personal qualities

Personal suitability, good teamwork skills, inventiveness, relevant practical experience, and a proactive approach will be emphasized in the evaluation. The Research Fellow will be expected to contribute to an active research community that promotes the personal and professional growth of its members.
growth of the doctoral candidates. The position places great demands on the applicant’s capacity for independent goal-oriented work, ability to concentrate, and attention to detail.

Personal qualities and suitability for the position will be emphasised.

**We offer**

- Professional development in a large, exciting and socially influential organisation;
- A positive, inclusive and diverse working environment;
- Modern facilities and a comprehensive set of welfare offers;
- Membership of the [Norwegian Public Service Pension Fund](#)

More about working at UiA.

The position is remunerated according to the State Salary Scale, salary plan 17.515, code 1017 PhD Research Fellow, NOK 479 600 gross salary per year. A compulsory pension contribution to the Norwegian Public Service Pension Fund is deducted from the pay according to current statutory provisions.

**General information**

A good working environment is characterised by its diversity. We therefore encourage all qualified candidates to apply for the position, irrespective of gender, age, disability or cultural background. The University of Agder is an IW (Inclusive Workplace).

Women are strongly encouraged to apply for the position.

The successful applicant will have rights and obligations in accordance with the current regulations for the position, and organisational changes and changes in the duties and responsibilities of the position must be expected. The engagement is to be made in accordance with the regulations in force concerning the acts relating to [Control of the Export of Strategic Goods, Services and Technology](#). Appointment is made by the University of Agder’s Appointments Committee for Teaching and Research Positions.

Short-listed applicants will be invited for interview. With the applicant’s permission, UiA will also conduct a reference check before appointment. Read more about the employment process.

In accordance with the Freedom of Information Act § 25 (2), applicants may request that they are not identified in the open list of applicants. The University, however, reserves the right to publish the names of applicants. Applicants will be advised of the University’s intention to exercise this right.

**Application**

The application and any necessary information about education and experience (including diplomas and certificates) are to be sent electronically. Use the link "[Apply for this job](#)".

The following documentation must be uploaded electronically:

- CV with complete list of scientific publications
- Master’s thesis
- Certified copies of credentials and diplomas (BSc and MSc or Dipl.-Ing.)
- Copies of selected scientific publications (if applicable)
- Three references
- English test (TOEFL, IELTS or CEFR)

All documentation must be available in a Scandinavian language or English. The applicant is fully responsible for submitting complete digital documentation before the closing date.

**Application deadline:** 15.05.20

**Contact**

For questions about the position, please contact:

- Professor Matthias Pätzold, tel.: +47 3723 3283, e-mail: matthias.paetzold@uia.no
- Head of Department Folke Haugland, tel.: +47 3723 3112, e-mail: folke.haugland@uia.no

For questions about the application process, please contact:

- HR Advisor Nina Rønningen, tel.: +47 38 14 20 16, e-mail: nina.ronningen@uia.no

**University of Agder**

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