

Jobbnorge ID: 254335 Deadline: 1/31/2024 Website: http://www.uia.no

Scope: Fulltime

Duration: Temporary

# PhD Research Fellows in Information Systems

#### Creating knowledge together

When people who are committed come together to further knowledge, anything is possible.

The University of Agder combines the unique warmth and charm of Southern Norway with first-class scientific, technological and artistic expertise.

Would you like to work with us to create better solutions to our shared challenges?

Video: https://www.youtube.com/watch?v=AMM-5UKuldA

#### About the position

Up to two 100 % positions is available at the University of Agder, Faculty of Social Sciences, Department of Information Systems as a PhD Research Fellow in Information Systems, affiliated to the Department of Information Systems, for a period of three years, or four years with 25 % required duties.

The position is located at Campus Kristiansand.

The starting date is negotiable with the faculty.

The Department of Information Systems offers bachelor, master and PhD degrees in Information Systems, and a master's degree in Cybersecurity. The department also offers a one-year program in Information Systems, courses in teacher's education, in the master's program in Health and social informatics, and further education in Information Systems. With around fifty employees (Professors, Associate Professors, Post-docs, Research Fellows and administrative staff), the department is one of the largest Information Systems research groups in Norway. Read more about the faculty of social sciences here.

#### Responsibilities

The Department of Information Systems invites applicants to outline proposals for a research project that explores one of the following research topics (A, B, C). It is also possible for applicants to outline a proposal that combines more than one of the topics listed below.

Topic A: Autonomous technologies

Recently, we have witnessed an increased public presence and use of technology that operates autonomously (e.g., generative artificial intelligence and autonomous vehicles). These technologies make choices based on data, algorithms, and user inputs. Whereas much of the current usage is experimental, several industries including public administration, finance, education, and transportation are expected to make use of autonomous technology for vital tasks. However, the use of these technologies may be problematic since the outcomes of their usage are context-dependent and can be unpredictable, influencing how users (e.g., caseworkers) and non-users (e.g., citizens) perceive implementations of autonomous technologies across various contexts. Broad acceptance of autonomous technologies is a prerequisite for different industries to succeed with them. This research topic provides the opportunity to conduct novel research within one of the next frontier areas of Information Systems research. Relevant research areas for the PhD Research Fellow studying autonomous technologies include, but are not limited to: Trust and reliability, user and non-user acceptance, ethical and social implications, human-machine interaction, and public policy and governance. We invite applications that problematize autonomous technologies in a specific context of interest for the PhD candidate.

Topic B: Cyber deception

Cyber deception is a rapidly evolving sociotechnical phenomenon, carrying significant implications for cybersecurity as both a threat and an opportunity. Deceptive tactics play a pivotal role in the success of many devastating cyberattacks witnessed today. Offensive cyber deception operations employ a combination of simulative and dissimilative strategies, including disinformation, pretexting, baiting, and phishing, among others. On the flip side, cyber deception presents itself as an opportunity for proactive defines, effectively turning the tables on potential attackers during a cyberattack. Defensive cyber deception tools not only serve to decoy and confound attackers, depleting their resources and impeding their progress, but they also provide invaluable insights into attackers' methodologies within the network. Against this backdrop, several critical research questions warrant attention in the future. What factors influence individuals' susceptibility to cyber deception operations? How can insights from deception theory enhance the design and development of more robust cybersecurity education and training programs? In what ways can cyber deception bolster the defensive capabilities of critical infrastructure services crucial to a resilient society? Furthermore, the integration of Artificial Intelligence (AI) is poised to elevate the cyber deception landscape to new heights. As such, exploring

how AI can enhance the detectability of offensive cyber deceptive attacks and facilitate the deployment of defensive cyber deception tools emerges as a natural question.

Topic C: Design research for AI in clinical diagnosis

The healthcare sector recognizes the potentials of Artificial Intelligence (AI), yet its clinical adoption faces hurdles related to validity, safety, workflow integration, and regulatory issues. These hurdles are even bigger when it comes to image-based diagnosis and decision making, such as in the case of bone fracture. This research topic is focused on helping specialists in bone fracture diagnosis in collaboration with the Sørlandet Hospital Trust. The aim is to explore how collaboration with AI can help specialists in diagnosing bone fracture and making treatment decision. The research will consider social and technical aspects to understand issues such as shared responsibility, clinical experience integration, workflow design, interpretability and trust of the model, and quality of patient care. The PhD candidate will conduct design research and workshops together with radiologists, specialists, patients, and solution providers.

#### Required qualifications

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

The applicants must qualify for admission to the PhD Program in Social Sciences and must hold a master's degree in information systems (IS) or closely related areas with an average grade of B or better. Applicants who are in the process of finishing their master's thesis are also welcome to apply for this position. More information about the PhD program at the Faculty of Social Sciences is to be found here: Ph.D. - specialization in Information Systems.

Fluency in written and oral English is a prerequisite.

Research project proposal:

Applicants must submit a project proposal whose scope lies within the abovementioned topics. The project proposal should comprise a maximum of 5000 words, including the reference list. The proposal must contain a preliminary presentation of the problem area, theoretical foundation, methodological approach and planned progression for the doctoral project. The quality of the project proposal will receive a high level of consideration during the application assessment process. The project proposal should clearly indicate to which topic it is linked. It is possible for applicants to submit a proposal that combines more than one topic, in such a case the topics combined must be indicated.

The University, on its side, is committed to securing good supervision for the successful applicants.

#### **Desired qualifications**

Knowledge and experience in one or more of the following areas:

- · socio-technical theories
- human-machine interaction
- · artificial intelligence
- public policy and governance
- cybersecurity
- e-health
- · participatory research

#### Personal qualities

- strong communication (both written and oral)
- proactive, adaptive and open-minded
- result-oriented
- proven ability to work independently as well as in teams
- strong motivation to contribute to good working and social environment

Personal qualities and suitability for the position will be emphasised in evaluating the applicants.

## 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 positions are remunerated according to the State Salary Scale, salary plan 17.515, code 1017 PhD Research Fellow, NOK 532 200 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**

UiA is an open and inclusive university. We believe that diversity enriches the workplace and makes us better. We, therefore, encourage qualified candidates to apply for the position independent of gender, age, cultural background, and disability.

The successful applicants 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. Appointment is made by the University of Agder's

Appointments Committee for Teaching and Research Positions.

Short-listed applicants will be invited for interviews. 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. Data will be handled in line with GDPR or relevant data protection laws.

In case of discrepancies between the Norwegian and the English version of this description, the English version takes precedence.

# **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 the position".

The following documentation must be uploaded electronically:

- Academic CV
- Cover letter (max one page/500words) with your motivation for this position
- Transcripts and diplomas for bachelor's-, and master's- degrees. If you have not yet completed your master, provide a transcript of courses completed and your estimated date for the master's degree completion.
- A copy of the master thesis. For those who are near to completion, an extended abstract combined with a statement about plans to complete the thesis. Documentation of a completed master's degree must be presented before taking up the position.
- Academic works published or under review that you would like to be considered in the assessment (up to five items)
- · Research project proposal (max 5000 words).
- Name and contact information of two reference people

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

Application deadline: 31.01.2024

#### Contact

· For questions about the position:

Associate Professor Peter André Busch, email: peter.a.busch@uia.no (Topic A)

Associate Professor Wael Soliman, email: wael.soliman@uia.no (Topic B)

Associate Professor Sofie Wass, email: <a href="mailto:sofie.wass@uia.n">sofie.wass@uia.n</a> (Topic C)

• For questions about the application process:

Senior Adviser, HR Anna Færavaag, e-mail: anna.c.faravaag@uia.no

# **University of Agder**

The University of Agder has more than 1500 employees and almost 14 000 students, making us one of Southern Norway's largest workplaces. Our dedicated staff engage in research, teaching and dissemination across a diverse range of fields.

fields. The university is located on two modern campuses in Kristiansand and Grimstad.

### **Additional information**

#### Place of service:

Gimlemoen 25 4630 Kristiansand S (Kristiansand Municipality)