Researcher in Reducing Vulnerability Regarding
(Healthcare) Robotics

Job description

One position as a researcher is available at the Robotics and Intelligent Systems (ROBIN) group at the Department of Informatics, University of Oslo, Norway (among Norway’s largest university department for education and research in Computer Science and related topics), as a part of the Research Council of Norway funded project Vulnerability in the Robot Society (VIROS, 2019-2023). The goal of the fellowship is to develop knowledge about and technology for reducing vulnerabilities regarding robotics. The focus will be on privacy, security and safety, particularly in healthcare contexts. The scope will be dependent on the background of the recruited candidate, but with a planned main focus within either robot sensing with regards to privacy, machine ethics for robot security, or motion preferences for robot safety.

The position will be for a period of three years but with a possibility to be extended if continued external funding becomes available. The starting date is no later than 1 January 2021.

More about the position

The Robotics and Intelligent Systems research group focus on adaptive systems research, often including biologically inspired methods. We target to apply these methods within robotics and embedded systems for real-world applications. We are also interested in studying human and robotic motion using motion capture analysis and apply this knowledge in designing adaptive robotic or computing systems.

The VIROS project is a cross-disciplinary collaboration between the Department of Private Law and the Department of Informatics at the University of Oslo and some other departments and partners. Its aims at developing technology and proposals for regulatory measures to reduce vulnerabilities regarding robotics. Transparent and explainable systems can also be relevant. The research in the position will, to some extent depend on the candidate with a focus e.g. in one or more of the following domains (these are examples, see more details here: https://tinyurl.com/y9wusmtr):

- Privacy: Multi-modal Sensing for Emergency Monitoring of Older People for Privacy
- Security: Machine Ethics for Robot Security
- Safety: Motion Preferences for Home Robot for Safety

The technology for sensing, design and control within robotics should be relevant to reducing vulnerabilities within healthcare contexts.

Qualification requirements

The Faculty of Mathematics and Natural Sciences has a strategic ambition is to be among Europe’s leading communities for research, education and innovation. Candidates for these fellowships will be selected in accordance with this, and expected to be in the upper segment of their class with respect to academic credentials.

- Applicants must hold a degree equivalent to a Norwegian doctoral degree in computer science including robotics and machine learning/artificial intelligence (other degrees would be considered if qualifications match). The thesis must have been submitted before application deadline and approved and defended before the candidate can start in the position.
- Applicants should have knowledge and experience in programming, robotics and machine learning/artificial intelligence.
- Moreover, knowledge in the fields of motion tracking and analysis, human-robot interaction, sensor data analysis, rapid prototyping, simulation, and/or behaviour modelling would be an advantage.
- The applicant is required to document in the application letter in what way the past education and experience match the profile for the post. Thus, in the application letter, please briefly describe your motivation for the position and the relevance of the Master/PhD thesis work and other project work relevant for the position.
- Applicants for the position should have scientific publications relevant to this position, and both their quantity and quality (impact of the journal(s) and conference(s)) would be important selection criteria.

Personal skills:

- A number of partners are involved in the project, so collaboration skills would also be assessed.
- Fluent oral and written communication skills in English.

We offer

- salary NOK 523 200 - 640 200 per annum depending on qualifications in position as Researcher (position code 1109)
- a professionally stimulating working environment
- vibrant international academic environment
attractive welfare benefits and a generous pension agreement, in addition to Oslo’s family-friendly environment with its rich opportunities for culture and outdoor activities.

Currently (July 2020), a low corona pandemic impact in Norway (https://www.nrk.no/korona/status/ translate in Google chrome)

How to apply

The application must include:

- Cover letter (statement of motivation and relevance for the position by summarizing scientific work and research interest)
- Research outline, including relevant research questions and theoretical and methodological approaches (approximately 2-3 pages, see template for research outline)
- CV (summarizing education, positions, academic work - list of scientific publications, pedagogical experience, administrative experience and other qualifying activity)
- Copies of educational certificates, academic transcript of records and letters of recommendation
- The most relevant and important publications and academic work that the applicant wishes to be considered by the evaluation committee (maximum five)
- Names and contact details of 2-3 references (name, relation to candidate, e-mail and telephone number)

The application with attachments must be delivered in our electronic recruiting system. Foreign applicants are advised to attach an explanation of their University's grading system. Please note that all documents should be in English (or a Scandinavian language).

In assessing the applications, special emphasis will be placed on the documented, academic qualifications, the research outline quality and relevance as well as the candidates’ motivation and personal suitability. Interviews with the best qualified candidates will be arranged.

Formal regulations

According to the Norwegian Freedom of Information Act (Offentleglova) information about the applicant may be included in the public applicant list, also in cases where the applicant has requested non-disclosure.

The University of Oslo has an agreement for all employees, aiming to secure rights to research results etc.

The University of Oslo aims to achieve a balanced gender composition in the workforce and to recruit people with ethnic minority backgrounds.

Contact information

For further information please contact: Jim Tørresen, phone: +47 22852454, e-mail: jimtoer@ifi.uio.no

For technical questions regarding the recruitment system, please contact HR Adviser Torunn Standal Guttormsen, phone: +4722824272, e-mail: t.s.guttormsen@mn.uio.no

About the University of Oslo

**The University of Oslo** is Norway’s oldest and highest rated institution of research and education with 28 000 students and 7000 employees. Its broad range of academic disciplines and internationally esteemed research communities make UiO an important contributor to society.

**The Department of Informatics (IFI)** is one of nine departments belonging to the Faculty of Mathematics and Natural Sciences. IFI is Norway’s largest university department for general education and research in Computer Science and related topics.

The Department has more than 1800 students on bachelor level, 600 master students, and over 240 PhDs and postdocs. The overall staff of the Department is close to 370 employees, about 280 of these in full time positions. The full time tenured academic staff is 75, mostly Full/Associate Professors.

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