

## **Professor in Systems Architectures for Autonomous Systems, Linköping University, Sweden**

Linköping University is looking for a full professor in Systems Architectures for Autonomous Systems. The position is an initiative within the national Wallenberg Autonomous Systems and Software Program (WASP, <http://www.wasp-sweden.org>). WASP is Sweden's largest ever individual research program, and provides a platform for academic research and education, fostering interaction with Sweden's leading technology companies. The program addresses research on autonomous systems acting in collaboration with humans, adapting to their environment through sensors, information and knowledge, and forming intelligent systems-of-systems. Software is the main enabler in autonomous systems, and is an integrated research theme of the program. WASP's key value is Research excellence in autonomous systems and software for the benefit of Swedish industry.

The primary focus of the present position is design and analysis of networked digital hardware systems involving sensing, processing, storage and communication of information. This includes hardware/software co-design approaches with a strong connection between the algorithms and the associated programmable hardware, as well as research on new system architectures that enable and support, e.g., learning and adaptation. Autonomous systems developed using such digital systems are typically heterogeneous, distributed and with a mix of synchronous and asynchronous components embedded in other systems, e.g. vehicles, machines or consumer products. Communication can be wired or wireless. The system topology may range from a static architecture with a fixed set of physical processing, sensing, and communication elements to self-modifying ad-hoc networks of lightly coupled elements. The nature of autonomous systems often imposes constraints on power consumption, flexibility, adaptability, resilience, safety and security in addition to other non-functional requirements.

While autonomous systems typically involve also e.g. software, mechanics, electronics and sensors the focus of the present position is digital hardware and systems software for information processing, storage and communication.

Subject to decision by WASP the position comes with a substantial recruitment package including full funding for the new professor to recruit two PhD candidates (four years each) and 2 post docs (2 years each).

Application deadline: August 19, 2018

More information: <https://liu.se/en/work-at-liu/vacancies?rmpage=job&rmjob=8227&rmlang=UK>