TAL TECH

Embedded Intelligence for Control Systems

Summary

Taltech School of Information Technologies, Department of Computer Systems, Centre for Intelligent Systems offers a 4-year PhD position in Intelligent Embedded Systems for Control System Design.

Research field:	Information and communication technology
Supervisors:	Kristina Vassiljeva
	Peeter Ellervee
Availability:	This position is available.
Offered by:	School of Information Technologies
	Department of Computer Systems
Application deadline:	Applications are accepted between June 01, 2020 00:00 and July 03, 2020 23:59 (Europe/Zurich)

Description

One of the main challenges of the future control systems will be data-driven control design for rapidly changing environments that will be able to increase efficiency and reduce energy consumption, emissions and pollution. Data-driven control algorithms lying on the border between control theory, machine learning and data science, have the largest impact on the future of humanity.

In practice, advanced control algorithms utilizing elements of AI, have often to be implemented in embedded devices with limited computational resources. The aim of this research is to find an optimal solution for implementation of advanced computational intelligence based control techniques in embedded devices.
The developed methodology will significantly simplify implementation of advanced control techniques in the industry and home automation, increase their efficiency and enable industrial control systems to acquire knowledge and learn from constantly growing data sets.

Qualifications:

- Good knowledge of control System Design
- Good knowledge of Hardware design
- Knowledge of MATLAB/Simulink
- Knowledge of Programming languages
- Participation in research projects and research publications is a benefit
- Teaching experience is a benefit

The applicants should fulfill the following requirements:

- Master's degree in Control engineering, Computer engineering and/or Mechatronics related field
- Fluent English

To get more information or to apply online, visit https://taltech.glowbase.com/positions/70 or scan the the code on the left with your smartphone.