Master’s thesis proposal – 30hp

Smart Manufacturing – Image Recognition

About Project Smarta Fabriker: Digitalization and its connection to sustainable production is identified as a key enabler for increasing the number of jobs in Swedish industry. The purpose of Project Smarta Fabriker is to increase the attractiveness of technology and careers in industrial companies, and to spread knowledge about industrial digitalization. During the spring of 2017 a state-of-the-art demonstrator of a smart factory was developed by 80 students in collaboration with over 50 companies. The demonstrator is currently used for training students as well as employees of industrial companies. For 2018 this demonstrator is to be further developed implementing a variety of digital manufacturing concepts where Smart manufacturing – Image recognition is one of the central themes. To learn more about the project and previous theses, visit www.smartafabriker.se (in Swedish).

Smart Manufacturing – Image Recognition is a project to evaluate how image recognition can be used to reduce faults in a manufacturing process. Work on this has already been conducted, and continuation of this is expected.

Tasks

- Evaluate, enhance and test the work that has been done in this field, in specifics related to the assembly of a Minilink device
- Implement this solution as far as possible in the real production at Ericsson, it is assembled currently in Borås.
- Perform further studies in how a manufacturing process can be enhanced using image recognition
- Specify how the manufacturing process should be changed to make image recognition more viable, less error prone and possible to use in a greater number of use cases

Means and location

This thesis is performed in collaboration with Ericsson AB which will provide industrial support and supervision. Thesis students will have access to workplaces at Ericsson AB, Lindholmspiren 11, Gothenburg.

Conduction and requirements

This thesis work needs to be conducted by two students where at least one should be fluent in Swedish. Preferably, we are looking for students with background in image recognition, machine learning and related areas. The time period is January to May 2019.

Contact

For questions concerning Project Smarta Fabriker contact Johannes Persson, 0708 58 19 13, johannes.persson@qtc.com. For specific questions concerning the topic of the thesis, contact Fredrik Hultkrantz, 0725 74 64 70, fredrik.hultkrantz@ericsson.com, at Ericsson AB.

Interviews are held continuously. To apply, send your CV and a cover letter to fredrik.hultkrantz@ericsson.com as soon as possible, but no later than November 30th, 2018.