LINKÖPINGS UNIVERSITET

2022-08-10

Master Thesis Proposal

Data-driven prognostics of wind turbines

Renewable energy production, such as wind turbines, is increasing to reduce the dependency on fossil-based energy production. This is also followed by an increasing interest in developing efficient methods for fault diagnosis and predictive maintenance to improve up-time and avoid unexpected stops. Data have been logged from a wind farm with multiple wind turbines, including maintenance logs and reported failures.

In this master thesis project, the objective is to develop and implement data-driven (and model-based) models for prognostics of wind turbines. This includes analysis and pre-processing of wind turbine data which will be also used for training and evaluation. The goal is to predict, within some time window, when a wind turbine will fail and would need maintenance.

We are looking for students with skills and/or interests in modeling, signal processing, and machine learning.

If you are interested or have questions, please feel free to mail me:
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or come by my office in the vehicular systems corridor (B-building behind Café Java).

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