

Master Thesis Proposal

Distributed Diagnosis System Design for Complex System Monitoring

Fault diagnosis and system monitoring considers the problem of classifying the system health and identify if a fault is present in the system. The complexity of the diagnosis system design grows with system complexity. One solution is a distributed, or decentralized, diagnosis system design where different subsystems are monitored by different local fault diagnosers. However, designing a set of local fault diagnosers to achieve satisfactory global fault diagnosability performance is a non-trivial problem.

In this master thesis project, the objective is to develop a method for designing distributed diagnosis systems. The objective is to find a systematic method to partition the system model such that the faults can be isolated in each subsystem. A suggestion for a case study is a model of an internal combustion engine in the vehicular system's lab. Real data from different faults can be measured from the internal combustion engine.

If you are interested or have questions, please feel free to mail me:

daniel.jung@liu.se

or come by my office in the vehicular systems corridor (B-building behind Café Java).