# Master Thesis

**Linnéuniversitetet**
Linnaeus University

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| **Thesis Topic** | **Smart-Troubleshooting in the Connected Society** |
| **Motivation** | In the Internet of Things (IoT) and ITS (Intelligent Transportation Systems) era, it is increasingly essential to cope with failures and malfunctions involving systems made by diversely interconnected and heterogeneous devices. One way to tackle this challenge is to think about novel "smart-troubleshooting" paradigms combining product information together with advanced prognostics / diagnostics through log file analytics and process mining in order to achieve self-healing. |
| **Tasks** | The thesis will address the implementation of a prototype framework operating in a simulated IoT/ITS environment in order to achieve a proof-of-concept of (semi)autonomous troubleshooting. The student will be required to study the state-of-the-art and develop the method, models and tools to design and evaluate smart-troubleshooting in a testbed scenario. He/she will write a report including literature review, description of developed procedures, software documentation, and discussion of testing results. |
| **Prerequisites *** | Basic courses on computer science, programming and software engineering. Good motivation to work on a research topic in cooperation with industry. Excellent results achieved in previous exams. |
| **We offer you** | • Preliminary meeting to clarify objectives and requirements. <br> • Support, already developed reports (literature review), and other existing materials on smart-troubleshooting. <br> • Industry cooperation opportunity. |
| **Time frame** | - |
| **Supervisor(s)** | Dr. Francesco Flammini <br> Senior Lecturer <br> Dept. of Computer Science and Media Technology <br> Faculty of Technology <br> francesco.flammini@lnu.se |

*   All the course codes, like e.g. 1DV101, refer to courses here at DFM. Similar documented experience from other places will do just as well.