



**ERICSSON**

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# MASTER THESIS – PATH FINDING AND VISUALIZATION OF LAB EQUIPMENT

## Background

Ericsson is hosting one of the biggest telecom labs in the world to support the development of mobile networks. These networks serve as a corner stone for the networked society (<https://www.youtube.com/watch?v=eZPGsrXR4io>) where everything that benefits from a connection should be connected. Ericsson researchers and developers are now working on several solutions to enable remote solutions for utilizing equipment and networks in these labs. That's where you now can be a part and contribute with new functionality and insights.

## Thesis Description

Imagine a map with millions of cities and also the roads between them, and that each city and road have attributes describing it. The goal is to plan a road trip in this network based on customers need and preference.

This is pretty similar to the functionality needed in the lab, but instead of cities and roads it is telecom and cloud equipment connected together, and the customer here demands a certain environment / set of connections to operate on for testing new functionality.

The following steps are envisioned as part of the thesis work:

- Evaluation and implementation of path finding algorithms
- User interface development for visualization and user input
- Automation

The thesis will be concluded with a result presentation along with deployment at Ericsson sites around the world.

## Qualifications

This project aims at students in electrical engineering, computer science, computer engineering or similar.

Knowledge in object oriented programming is preferred.

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## Contact Persons

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**Extent**

1-2 students, 30hp each

**Location**

Ericsson AB Mjärdevi, Linköping

**Preferred Starting Date**

Spring 2017

**Keywords**

Object oriented programming, Mobile Telecommunication, Optimization

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