

## FMH606 Master's Thesis

**Title:** Environmental Public Health Information Management System

**Supervisor:** Hans-Petter Halvorsen, Nils-Olav Skeie

**External Partners:** Tel-Tek, Porsgrunn kommune, Sykehuset Telemark

### **Task Description:**

Development and maintenance of infrastructure and data system for gathering, acquiring and analysis of environmental and public health information data for Porsgrunn and Grenland. Typical data for acquiring and analyzing are air pollution and air quality, emissions from industry, emissions from cars, number of cars, etc. Design and development of stations for data acquiring and monitoring, or integration with existing stations. The system will be important in the development of new industries, research and development areas.

The thesis includes the following key elements:

- Get an overview of data for acquiring and analysis
- Planning and System Design
- Database modeling, design and implementation
- Web Design and Web Development
- Monitoring, Analysis, Statistics, and Presentation of Data. Generation of Reports in connection with analysis and reporting of data to authorities and other contracting authorities.
- Design and development of Monitoring Stations in connection therewith, or integration with existing monitoring stations.
- Deployment and Hosting

This is a preliminary draft of content and tasks; more specific contents and tasks will be made towards the project start in cooperation with the involved partners.

**Task Background:** USN has collaborated with Tel-Tek, Porsgrunn kommune, Sykehuset Telemark for a prototype of such a system. The goal is to develop and establish an operational system for registering and monitoring of data regarding environmental public health information.

**Student Category:** IIA students

**Practical Arrangements:**

**Signatures:**

Supervisor (date and signature):

Students (date and signature):