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Impact of smart-grid control on sewer quality and maintenance in Kolding

Integrating the wastewater treatment plants (WWTP) into the smart grid concept requires storing wastewater in order to treat it when electricity prices are lower. Sewer can provide this storage volume, which is usually not available at the WWTP. However, storing wastewater can results in emission of H_2S, with consequent problems of odors, corrosion of pipes and safety issues. The project aims at implementing a water quality model in order to simulate H_2S emissions in the sewer in the city of Kolding, where a smart-grid control is under implementation.

Tool: water quality modelling tools (in WEST-IUWS or matlab)

Project type

Topic is suitable for MSc project

Pre-requisite

General understanding of water quality processes and urban drainage, interest in modelling

Group size

1-2 students (separate projects)

Department of supervisors

Main supervisor: DTU Environment

Co-supervisor: DTU Environment/Krüger A/S/Aalborg University

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