



School of Engineering

InES Institute of
Embedded Systems

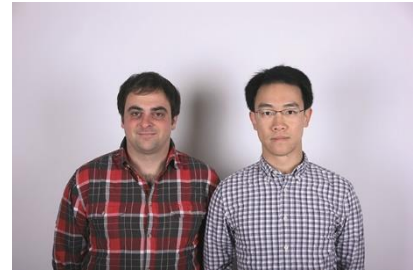
Maintenance- and Planning-Tool for Drinking Water Supply Facilities

Daily jobs in the water supply facilities are especially maintenance work, like replacement of the pipes or cleaning of the measuring probes, and they all take place outside in the plant. To help the employee in each step of the maintenance, a list of instructions will be printed out and taken to the place of work. After all the steps in the list are done, the process has to be reset in the server so that the countdown can start from the beginning again. Because smart devices are getting more popular at home as well as in the office, the operator's needs for moving the maintenance application from the server to the peripheral and from paper to smart device are also increasing.

This thesis intends to develop an application for the mobile device, which would simplify the cyclic maintenance work, and to expand the existing server maintenance program for this functionality.

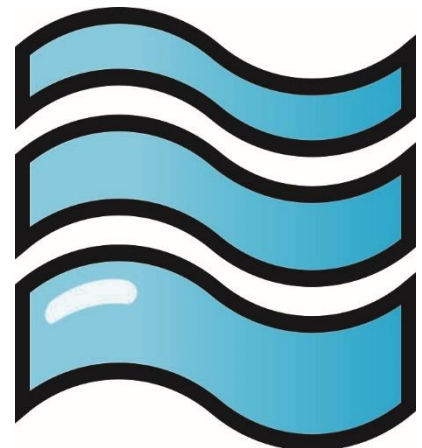
The project consists of four main parts. In the first step, the user access functionality for different authorized persons will be created. Second is the synchronization between the server and the remote application and to solve version conflicts. As the third part of the application, the function which can identify a power unit will be implemented to simplify the work in the fields. The final step is to integrate all these functions into the remote application and to complete its user interface.

Requirements for each part of the project are different and the working concepts are derived from them. To complete the project, all the functions of the application set are tested in the facility plant and the results obviously show that maintenance work gets more efficient. Further development of the application would be done by the industry partner of the thesis, Züllig Systems by Hach.



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WPTool

Maintenance- and Planning-Tool Icon