Faculty of Electrical Engineering & Computer Science
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Intelligent Container for Transportation using RFID.

ABSTRACT - Masterthesis

62/63 Hoisting equipment are individual parts of complete equipment, further combined together in assembly line. In general, these equipments are needed in different locations of assembly line in the world. They must be maintained for further use (maintenance is done by FFT) as they undergo logistics problems (rust, quality, etc.). Furthermore, they need to be tracked.

Currently, hoisting equipments are transported in a wooden box and maintenance is done to ensure the final use and even in near future, tracking them is difficult. The proposed solution is to provide the end user with a system capable of tracking by means of RFID in the hoisting equipment and assessing the quality and availability of each fitting. Implementation is done by transporting the hoisting equipment with affixed RFID Tags, in an intelligent transport pallet with a RFID Reader in the sensor unit attached to it. Later the data from the RFID Reader will be transferred to a Gateway via wireless communication and finally accessed in database via cloud. The sensor unit is developed as a peripheral board in accordance with the existing FFT Sensor Board. This thesis deduces solution for RFID Module in the sensor unit with analysis of RFID Technology, Conceptual Design of RFID Module, Development of Hardware and Software to test under realistic field conditions and Integration of technology into the process/toolchain.