Remote Agriculture Automation using Wireless Link and IoT Gateway Infrastructure - DTU Orbit (19/08/2019)

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The publication presents a system architecture for remote agriculture process automation, involving sensors and actuators connected to IoT gateway running OPC UA server. Sensors and actuators are very general and do not need any intelligence related to the process under control. Acquired data processing and control algorithms that produce control stimulus are executed in the gateway. This approach features the advantage of convenient possibilities to change control rules from Cloud services (installing or configuring process controller) without updating firmware of remote sensors/actuators. Throughput of data collection channel (long range radio) and IoT gateway performance are limiting factors for real time control or observation of agriculture processes. Therefore, achievable channel "sensors-OPC UA server" throughput is investigated experimentally. Potential agriculture applications that may benefit from the proposed architecture are identified.

General information
Publication status: Published
Organisations: Center for Bachelor of Engineering Studies, Afdelingen for Informatik, Kaunas University of Technology, Natural Resources Institute Finland
Contributors: Nakutis, Z., Deksnys, V., Jaurusevicius, I., Marcinkevicius, E., Ronkainen, A., Suomi, P., Nikander, J., Blaszczzyk, T., Andersen, B.
Pages: 99-103
Publication date: 2015

Host publication information
Title of host publication: Proceedings of the 26th International Workshop on Database and Expert Systems Applications (DEXA)
Publisher: IEEE
ISBN (Print): 978-1-4673-7581-8
Keywords: IoT, OPC UA, Precision agriculture, Wireless link
DOI: 10.1109/DEXA.2015.37
Source: FindIt
Source-ID: 2292344846
Research output: Chapter in Book/Report/Conference proceeding » Article in proceedings – Annual report year: 2016 » Research » peer-review