EXPERIMENTAL VALIDATION OF THE ACTUATION SYSTEM OF A WSN FOR PRECISION FARMING

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Abstract

Remote Monitoring Systems area very used nowadays for many applications like smart environment or domotic. Nevertheless these systems do not perform any kind of action. They only sense the environment gathering information to a remote unit for successive processing or statistical analysis. Here the key concept is actuation which allows to directly interact with the sensed and monitored area. The acquired data are directly used to take decisions and change the environment accordingly.

The aim of this activity regards the validation of an actuation system specifically thought and designed to assist precision farming. In particular different sensors can be used to sense some parameters identified to be the key ones for taking decisions regarding the amount of water to irrigate the trees. For instance, the above mentioned parameters are humidity, temperature and tree diameter. Key feature of the proposed system are water saving, autonomy and self-government and ease of use thanks to a graphical interface.

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