

ABSTRACT

Project Code : TRG54800

Project Title : Security System in Wireless Sensor Network for Agriculture Applications

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Abstract: An overview of agriculture industry is involved with large area, farmers and agriculture products. A large scale of area requires time consuming for collecting data to make decision on agriculture (e.g. watering, pruning and harvesting). Farmers are mainly focused on agriculture products and process, so providing an extra effort on technology should keep to the minimum. The agriculture products are the final result which is the most important for agriculture process. Therefore, the best product is the goal of agriculture industry.

Wireless sensor network is a technology that can distributed deploy and construct network sharing among their group. The main advantage of sensor network are collecting sensor data and transferring back to base center without the maintenance of power supply, network structure and data control. Therefore, wireless sensor network is one of the candidate solutions for future in assisting agriculture industry.

In general, security solution needs an experienced and skilled specialist to set up, maintain and troubleshoot. This is a challenge for sensor network to implement in agriculture industry. The main three factors (large area, farmers and agriculture products) are also need to be considered.

Our security approach is presented related factors and customized configuration for the process of deployment, maintenance, information feedback. The detailed process is concealed from farmer. Only selected information is showing to the farmer. The security solution should be customized the configuration for the specific agriculture and area. The scenarios, matching with familiar technology and simplified devices is the supportive of success solution. Therefore, the security approach is provided a solution for setting-up the security in agriculture industry. As a result, security implementation for wireless sensor network in agriculture industry can be more effortless by the given security approach.

Keywords: Sensor Network, Security, Agriculture, Farm, Management