Abstract

Now days with technologies we could developed cultivation system by utilizing narrow land around urban areas. We able to produce good quality and healthy crops independently. But, time constraints cause the difficulty of monitoring crops such as watering control intensity and daily irradiation intensity. The crops need enough water and light to be able to grow optimally, so that need good monitoring and controlling. In this research, I built a prototype system that could monitoring and controlling the ground water level in plants. In this research I use data of crops condition within a certain time interval and then will be processed into action actuator reference. The design of system will be implemented by of Wireless Sensor Network (WSN) technology. The data will be processed and summarized into classification of crops condition by using Fuzzy Logic method as control systems and provides output in the form of actuator. Implementation of the system will be built using a multisensor i.e. soil moisture, light intensity, height detection sensor, waterflow and water pumps as actuator. The result of this system are data crop conditions, soil conditions classification based on the results of processing data sensor acquisition, and pump actuator action based on the results of fuzzy.

***Key Words**: Wireless Sensor Network, Fuzzy Logic, actuator.*