

## Use of Wireless Sensor and Microcontroller to Develop Water-level Monitoring System

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### ABSTRACT

This paper presents the design and development process of Wireless Data Acquisition System (WiDAS) which is a multi-sensor system for water level monitoring. It also consists of a microcontroller (ATMega8L), a data display device and an ultrasonic distance sensor (Parallax Ping). This wireless based acquisition system can communicate through RF module (Tx-Rx) from the measurement sources, such as sensors and devices as digital or analog values over a period of time. The developed system has the option to store the data in the computer memory. It was tested in real time and showed continuous and correct data. The developed system is consisting of a number of features, such as low energy consumption, easy to operate and well-built invulnerability, which can give successful results to measure the water level. Finally, its flexibility facilitates an extensive application span for self-directed data collection with trustworthy transmission in few sparse points over huge areas.

**KEYWORDS:** Microcontroller, Water-level Monitoring System, WiDAS, Wireless Sensor

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