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## Patent Search

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## Abstract:

Water is one of the most important substances on earth. People now days always want something that can make their life easier. The invention proposes a more efficient water monitoring, water quality and management system for water utility to reduce the current water wastage problem. This approach will help utilities operators improve low cost water management systems specially by using rising technologies and IoT is one of them. The Internet of things cloud to prove to be one of most important methods for developing more utility proper systems and for making consumption of water resources more efficient. This invention provides the way to water management techniques, forecasting of water availability and demand, storage of the real time data for water management demand. This works helps to study and analysis about the challenges and opportunity for implementation of "ARDUINO" technology in industries. The ultrasonic sensor is used to measure the distance of the water tank level and pH sensor is used to check the quality of the water. The water level and water quality values are stored in IoT for future reference and message is send to the mobile.

## **Complete Specification**

Claims:1. IoT based technology efficiently forecast the water resources in real time applications.

- 2. Ultrasonic sensor is used to measure the level of water in reservoir
- 3. pH sensor is used to check the quality of water
- , Description: FORECASTING

Forecasting is the process of making predictions of the future based on past and present data and present data and most commonly by analysis of trends. A commonplace example might be estimation of some variable of interest at some specified future data. Prediction is a similar, but more general term.

Both might refer to formal statistical methods employing time series, cross-sectional or longitudinal data, or alternatively to less formal judgmental methods. Usage can differ between areas of application: for example, in hydrology the terms "forecast" and "forecasting" are sometimes reserved for estimates of values at certain specific future times, while the term "prediction" is used for more general estimates, such as the number of times floods will occur over a long period.

Risk and uncertainty are central to forecasting and prediction; it is generally considered good practice to indicate the degree of uncertainty attaching to forecasts. In any case, the data must be up to date in order for the forecast to be as accurate as possible. In some cases the data used to predict the independent variable is itself forecasted. NEED FOR WATER FORECASTING

Water managers forecast future demand for a variety purposes. These analyses can help managers understand spatial and temporal patterns of future water use to optimize system operations, plan for future water purchases or system expansions, or for future revenue and expenditures. There are several mathematical methods in use

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