

DESIGN AND IMPLEMENTATION OF WATER ENVIRONMENT MONITORING SYSTEM BASED ON WSN AND GSM TECHNOLOGY

A. C. KHETRE & S. G. HATE

Department of E&TC, Raisoni College of Engineering, Ahmednagar, Maharashtra, India

ABSTRACT

Due to the speed of Indian economic development we can also see the resulting speeding-up the contamination and damage to the water environment, Peoples also responsible who throw the garbage material in water due to which it is polluted. To overcome all this water environmental monitoring system based on a wireless sensor network developed. It consists of three parts data base station, data monitoring nodes and remote monitoring center. This system is useful for the complex and large-scale water environment monitoring, such as for lake's, reservoirs, swamps, rivers, and shallow or deep ground waters. The system provides the online auto monitoring of water temperature, turbidity, water level, and pH value environment of an artificial lake. There is a set point for each parameter for pH of water set point is 7 pH, for turbidity of water set point is 0.3NTU and for temperature of water set point is 60 degree Celsius, when these particular parameter crosses its set point the alarm is created then we comes to know that water is contaminated or polluted and at the same time SMS sends on management mobile that Emergency is occurred, due to which it is possible for that management person to take Appropriate action. In this sense water environment monitoring is one of the major methods for water resource management and contamination control. Different Sensors for water quality scenarios installed at the nodes to meet the monitoring demands for a variety of water environments and to obtain different parameters such as temperature, pH, water level and turbidity of an artificial lake.

KEYWORDS: Data Base Station, Data Monitoring Node, GSM, Water Environment Monitoring, Remote Monitoring Center, Wireless Sensor Network (WSN), Zigbee