VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELGAUM

A Project report on

"WIRELESS SENSOR NETWORK BASED ON WATER QUALITY MONITORING SYSTEM USING ZIGBEE"

(SPONSORED BY KSCST-37 BANGALORE)

A dissertation submitted to the Department of the Instrumentation Technology of Visvesvaraya Technological University, in the partial fulfillment for the award of degree of Bachelor of Engineering during the academic year 2013-2014.

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ABSTRACT:

The application of wireless sensor network (WSN) for a water quality monitoring is composed of sensor nodes with a networking capability that can be deployed for continuous monitoring purpose. The parameters involved in the water quality determination such as the pH level and temperature is measured in the real time by the sensors that send the data to the base station or control/monitoring room. This project proposes how such monitoring system can be setup emphasizing on the aspects of low cost, installation and easy handling and maintenance. The use of wireless system for monitoring purpose will not only reduce the overall monitoring system cost in term of facilities setup and labor cost, but will also provide flexibility in term of distance or location. In this project, the fundamental design and implementation of WSN featuring a high power transmission. Zigbee based technology together with the IEEE 802.15.4 compatible transceiver is proposed. The developed platform is cost-effective and allows easy customization