

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELGAUM 590 014



A REPORT ON PROJECT WORK

“Real time monitoring and control of remote systems using Zigbee based WSNs”

(Sponsored by KSCST,Bangalore)

Submitted in the partial fulfillment of the requirements for the award of the degree of

BACHELOR OF ENGINEERING in ELECTRONICS AND COMMUNICATION

Project Associates

Nikhila C.S.

4BD07EC065

Shruthi Gayakwad

4BD07EC105

Supreetha N.J.

4BD07EC059

Project Guide

Sri Avinash K .G.

M.Tech, MISTE ,MIETE

HOD

Prof. K.M. Chandrasekharaiah

M.Tech, MISTE, MIE(Ind), F.I.E.T.E.

PRINCIPAL

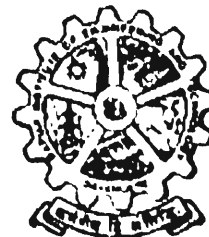
Dr. B.T. Achyutha

M.Tech, Ph.D, FIE, MISTE

2010-2011



**Bapuji Educational Association®
Bapuji Institute of Engineering and Technology,
Davangere-04
Department of Electronics and Communication Engineering**



Abstract

This project provides a novel method to access ZigBee based wireless sensor networks (WSN) from the internet using web service approach. We designed a novel gateway between the WSN and the Internet mainly for the scenario of home and building automation. With the improvement of the traditional gateway, the users on the internet can access the data of the sensor networks flexibly via web services. Each node in the WSN has a unique IP as its identifier, and it can be accessed by the IP directly.

A set of system design requirements were developed that cover the hardware design of the nodes, the design of the sensor network, and the capabilities for remote data access and management. We propose a system architecture that addresses these requirements in general. The application-driven design exercise serves to identify important areas of further work in power management, data sampling, communications, network re-tasking, and health monitoring.