VISVESVARAYA TECHNOLOGICAL UNIVERSITY

JNANA SANGAMA, BELGAUM – 590018
KARNATAKA

PROJECT REPORT
ON

"AUTOMATED TEMPERATURE TRACKING SYSTEM USING iBUTTON"

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE.
BACHELOR OF ENGINEERING IN
ELECTRONICS & COMMUNICATION ENGINEERING

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(An ISO 9001:2000 Certified Institution)

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SYNOPSIS

Automated Temperature Tracking System using iButton is a project designed to monitor the temperature of different devices or to track or to record automatically the variation of temperature of the objects.

In the project thermochron ibutton is used to track the temperature. The Thermochron is built on two technologies, a computer chip enclosed a stainless steel can (called as iButton), and a communications protocol (called 1-Wire). The iButton is a standalone instrument with a battery and protective housing. Once it is programmed it will run for a long time without attention, and without any external connections. The 1-Wire protocol is used to command the iButton and to retrieve data that is stored on the computer chip inside.

The Renesas R8c/25 are fabricated using a high-performance silicon gate CMOS process, embedding the R8C/Tiny Series CPU core, and are packaged in a 40-pin molded-plastic LQFP. It implements sophisticated instructions for a high level of instruction efficiency. With 1 Mbyte of address space, they are capable of executing instructions at high speed.