

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELGAUM-590 002



A Project Report on

“VIRTUALLY INTELLIGENT SYSTEM TO ASSIST, MONITOR AND ALARM PERSONS WITH HEART ABNORMALITIES”

Submitted To Visvesvaraya Technological University, Belgaum
in partial fulfillment of requirements for the award of degree

BACHELOR OF ENGINEERING

IN

ELECTRONICS & COMMUNICATION ENGINEERING

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ABSTRACT

The heart is one of the most vital organs within the human body. It acts as a pump that circulates oxygen and nutrient carrying blood around the body in order to keep it functioning. The circulated blood also removes waste products generated from the body to the kidneys. When the body is exerted the rate at which the heart beats will vary proportional to the amount of effort being exerted. By detecting the voltage created by the beating of the heart, its rate can be easily observed and used for a number of health purposes.

This application note demonstrates fundamental implementations of the cost effective heart rate monitor (HRM) devices. The heart rate monitor is implemented on a low cost ultra low-end 8-bit microcontroller.

This document is intended to be used by biomedical engineers, medical equipment development engineers, sportsmen or any person related with medicine. However, it is necessary to know the fundamentals of electronic analogue and digital circuits.