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**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING
FINAL YEAR B.E (2009-2010)**

PROJECT REPORT ON

**“INTEGRATED EMBEDDED BIOMEDICAL WEARABLE VEST
FOR REMOTE MONITORING OF PHYSIOLOGICAL SIGNALS
WITH DISTRESS ALARM AND GSM TECHNIQUE WITH VB”**

(Sponsored by Karnataka state council for science and Technology)

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ABSTRACT

A high proportion of the human population has a significant risk for heart disease. Heart disease is the leading killer in the society and is a significant component of medical costs. Avoiding heart disease involves identification of who is at risk and then taking the appropriate steps to reduce that risk. To identify who is at risk, most people simply get by with an occasional physical examination to determine the extent to which they are at risk or if their risk factor has changed for the worse. Others, however, would benefit by more frequent evaluation of their major vital signs, especially if their risk factors cannot be reduced. Vital signs include body temperature, electrocardiography data, blood pressure, heart rate, respiration rate, and oxymetry data.

There are a number of monitors that are known and being sold commercially. Most of these detect and record the heartbeat of the wearer over an interval; some also analyze it to determine if the heartbeat is in some way abnormal. Those that record heartbeat have the capability of transferring the recorded data to a computer for analysis and evaluation, perhaps by direct electrical connection to a computer or perhaps by transmission over a telephone line.

However, there appear to be no known devices that are worn by a user and that both sense data related to the wearer's vital signs and report anomalous data immediately to those who diagnose anomalous vital signs so that assistance can be provided as soon as possible if necessary. There remains, therefore, a need for improvements in vital sign monitoring.

It is possible to design a wearable electronic vest that can monitor various vital medical statistics (Body Temperature, body penetrated injury, etc) of the person wearing it. In the event of an abnormal behavior of the person wearing it, a distress signal can be sent to a hospital or relatives.