



**RESEARCH ARTICLE**

# **Estimation and Detection of Blood Pressure Using Smart Phones without Using Cuff**

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*Abstract— Smart phones are very popular in today's life. Cameras with high resolution, High end processors and built-in sensors such as accelerometer, orientation sensor and light-sensors are equipped in today's phones. Motivated by this statistic and the diverse capability of smart phones, we focus on utilizing them for biomedical applications. Blood pressure is a significant vital sign; blood pressure monitoring has a great significance to determine the health status of patients. In this project blood pressure, Temperature and heart beat are estimated by using sensors and the result is viewed in smart phones by using GSM and if any abnormal result is showed then the result is send to the particular mobile number through SMS. An application is created in smart phone to view the result in waveform. We estimate the systolic and diastolic pressure. It would be useful to have a device which can measure all vital signs in such an event. Transmission of the vital signs measured using the smart phone can be a life saver in critical situations.*

*Keywords— Blood Pressure, Finger Pulse, Vascular Transit Time, Cuffless, Temperature, Heart Beat, GSM*

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