

WIRELESS STETHOSCOPE

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*A Project Report
submitted in partial fulfillment of the requirements
for the award of the Degree of Bachelor of
Engineering in Bio-medical
of the Visvesvaraya Technological University, Belgaum*

Submitted by

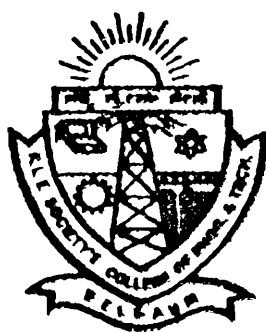
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ABSTRACT

The use of simple analog stethoscope for hearing the heart sounds and auscultations has been in practice for several years. In a number of clinical situations simple stethoscopes are inadequate for monitoring. Such as when performing certain investigations like computer tomography and magnetic resonance or treatment of patients with severe burns, wherein in most of these situations the responsible doctors must work from a distance from the patient. It is also not possible for heart sounds to be recorded for further analysis and for later use by doctors. Also the connecting tube limits the practitioner's proximity to the patients. A new and innovative solution to overcome this problem is to use a next generation auscultation device using wireless technology.

The aim of this project is to develop a wireless system using Bluetooth technology. The device transmits the pre-recorded heart sounds using Bluetooth technology to a receiver unit comprising of a mobile phone for recording the heart sounds which can be used for later analysis and comparison purpose. Also the heart sounds can be heard simultaneously as it is being recorded at the transmitter section by making use of a speaker. The device makes use of a PSOC IC that is programmed to control its operation.