

## Android - Based Wireless Electronic Stethoscope

**Authors :** Aw Adi Arryansyah

**Abstract :** Using electronic stethoscope for detecting heartbeat sound, and breath sounds, are the effective way to investigate cardiovascular diseases. On the other side, technology is growing towards mobile. Almost everyone has a smartphone. Smartphone has many platforms. Creating mobile applications also became easier. We also can use HTML5 technology to creating mobile apps. Android is the most widely used type. This is the reason for us to make a wireless electronic stethoscope based on Android mobile. Android based Wireless Electronic Stethoscope designed by a simple system, uses sound sensors mounted membrane, then connected with Bluetooth module which will send the heart auscultation voice input data by Bluetooth signal to an android platform. On the software side, android will read the voice input then it will translate to beautiful visualization and release the voice output which can be regulated about how much of it is going to be released. We can change the heart beat sound into BPM data, and heart beat analysis, like normal beat, bradycardia or tachycardia.

**Keywords :** wireless, HTML 5, auscultation, bradycardia, tachycardia

**Conference Title :** ICBSE 2015 : International Conference on Biomedical Science and Engineering

**Conference Location :** Paris, France

**Conference Dates :** September 21-22, 2015