Title: Digital Stethoscope

Problem statement

The limitations of Stethoscope lead to the innovated idea of digital stethoscope, that is for more sophisticated than the original conventional stethoscope. The acoustic stethoscope will attenuate sound transmission proportional to frequency created by heartbeat and blood flow in the veins. Inability to detect the frequency outside the normal range of human hearing, the DIGITAL STETHOSCOPE is emerged.

Digital Stethoscope is able to convert the acoustic sound to electronic signals. Digital Stethoscope is used to analyse and record the data of heart beat, blood flow in veins and respiratory system frequencies. which can be further amplified for optimal listening. This electronic signals further processed and digitalized to transmit the data into computers or personal laptops.

By using Digital Stethoscope we can able to detect the auscultation of the cardiovascular system and can assist in timely diagnosis of valvular heart disease(VHD) ,congestive heart failure ,hypertensive disease ,arrhythmias such as atrial fibrillation ,obstructive arterial disease and structural heart disease among others

Digital Stethoscope can be achieved by following general and electronic components such as Stethoscope, Microphone, Lcd or Led display(pc), Raspberry pi, Preamplifier and anti-aliasing filter, SD module and cloud interface, Power supply and PCB.