Paper Title: Digital stethoscope with processing and recording system based on cloud

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Abstract

The escalating number of respiratory health- related fatalities worldwide, attributed to factors like PM 2.5 and COVID-19, has spurred significant interest in digital stethoscope development. These pollutants directly impact the lungs, leading to a substantial rise in patients with pulmonary concerns. Conventional stethoscope technology struggles to meet the growing demand for specialized lung sound auscultation, which requires extensive training due to interference from bodily noises. As a result, digital stethoscope innovations have become highly sought-after in the medical field. These devices empower healthcare professionals to listen to lung sounds amidst internal interferences, without requiring extensive expertise. Therefore, this research aims to develop a digital stethoscope with four microphones, encased in wood to reduce background noise which never has before. Additionally, the device also outstanding to records patient examination data on the cloud, representing a breakthrough in digital stethoscope technology. This innovation combines cutting-edge technology with a sophisticated design, ensuring accurate lung sound auscultation and proving highly beneficial for physicians and patients with respiratory conditions.