**AED Project Proposal**

**Topic : Pediatric Pneumonia Diagnostic System using Internet Of Things**

**Problem Statement**

According to WHO statistics, pneumonia remains the single biggest killer of children under 5 globally, claiming the lives of more than 1 million girls and boys every year. However, the disease is treatable and preventable. Accurate and early detection of the disease is key. An Infant Respiratory Rate Sensor device has been developed by Inspire Living organization through their efforts in smart object sensing and pattern recognition.This device is specifically designed for use by community health workers who have limited medical training and must accurately determine respiratory rates in children as part of diagnosing pneumonia.

**Problem Solution**

The Pediatric Pneumonia Diagnostic System will use the Infant Respiratory Rate Sensor device to get information regarding the vital signs of a child in any remote area. Based on the analysis of the vital signs obtained, the application will detect if the signs are abnormal and the child requires treatment for pneumonia. The caregiver handling the device will be immediately notified of the abnormality and the child shall be admitted to a hospital for further treatment. This application will help provide pediatric healthcare in remote areas and reduce mortality rate. It will also give healthcare statistics of a particular community and help the government concentrate on eradicating pneumonia in those areas.

**Key entities/Role:**

Child patient(linked to a caregiver ,won’t have a user account)

Sensor device(Provides vitals)

Caregiver(Handles sensor device, acts as user account for each child)

Household(vitals for children of a household)

Community (Statistics for a community having many households)

Government (Monitors healthcare of community)

Hospital(Admit patients)

Admin(Handles the application)