Title: **HOME SOS SYSTEM FOR ELDERLY PEOPLE**

None

Field: Stem and innovation

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Abstract

Currently, Thailand is entering an aging society with a population aged 60 years or more, more than 10 percent of the total population and It is likely to increase steadily, which is predicted to be as high as 20 percent. Causing health problems resulting from physical changes and aging. Which these people have a high chance of falling accidents. Therefore, there is a study to detect the fall characteristics of the elderly. To extend to prevent and ask for the help of the elderly when the accident from falling to reduce the rate of paralysis and death. This project was created to monitor the elderly when at home alone or during a fall accident that cannot rise or help themselves. Inside the device, there will be a notification system automatically returned to the administrator in the form of text and images. In this project, there is a process for detecting fall and system notifications made from Node MCU, Battery and Accelerometer sensors allow communication between devices using Cloudmqtt and use imaging equipment to be able to identify the location of the elderly in the event of a fall. There is also an improvement to be easy to use. By taking into account the environment of the elderly who live inside the house to be lightweight and encased in materials that are not harmful to users from the test results will get the graph for falls of the elderly And the percentage of the accuracy of the device to detect the fall by collecting data. In which the data obtained will be from Accelerometer Which has the axis of the acceleration and with graphs from slope calculations. Which will affect the data processing by computer with the method of measuring the maximum value of the graph and the slope of the data over time, which results from the graph, can detect the fall increase the accuracy of the device and automatically alert

Keywords: falling patterns, notification system, Accelerometer