

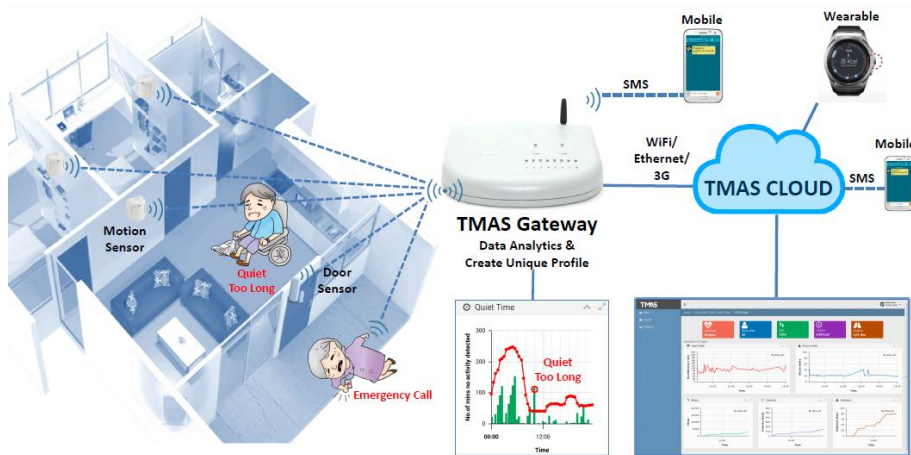
TMAS Elderly Management System

Background information

With growing number of senior citizens living independently, it becomes crucial to safeguard from unexpected emergencies and abnormalities. There are existing elderly monitoring systems. Some of them require wearable devices and some of them require massive hardware installation. The most concerned issue about these systems is their accuracy. This is related to decision making criteria by which systems need to decide when to alert users. Traditional systems apply rigid thresholds. This mechanism faces difficulties to adapt to the different users. Conflicts between rigid thresholds and variant living patterns may result in annoying number of false alarms. Another concern is regarding wearable devices. The elderly sometimes faces difficulties in remembering to wear these devices and some of them are reluctant to wear them.

System Overview

TMAS is designed using "smart wireless IOT" technologies. It is capable of learning the elderly daily activities, analyze, make decision and alert caregivers, neighborhood, relatives or service operators, in the event of abnormalities occurs. The TMAS IOT gateway has built in with intelligent learning algorithms, and provides comprehensive information about users' daily activities. It automatically learns users' living patterns and constructs user activity profiles based on the learned information. With these profiles, caregivers now can have better understanding of the elderly living habits. Abnormalities such as insomnia will be reflected in reports to caregivers and necessary advices can be provided to the elderly. User profiles are also utilized in alerting mechanism. Emergencies are identified by comparing the current situation with the user profile. Sensitivity will be adjusted automatically by the system intelligence and manually by the service operator.



KEY BENEFITS

- ✓ Simple & low cost.
- ✓ Wired or wireless for sensors and networks.
- ✓ Plug and play installation.
- ✓ Self learning, no survey required
- ✓ Intelligent algorithm for adaptive changes
- ✓ Cloud support for added services

TMAS Elderly Management System features its local intelligent data analysis. Local processing in smart gateway makes the system highly robust and reliable. It will be fully functioning as usual even in the event of network failure. With connection to the TMAS cloud, the TMAS EMS is a platform meant for service provider to manage large group of elderly homes. With the integration of medical equipment or wearable, health data such as heartbeat, stress index, calories etc, can be collected and submitted to cloud for further analysis.

Headline News on 18 Mar2015

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Mdm Chen (left) and her daughter Ms Oo with the SEMAS system. Photo: Robin Choo

