PAS

PROGRAMMABLE & AUTONOMOUS SYSTEMS

Company Name: Havenwood Retirement Village

Funding: Enterprise Ireland Matched Innovation Voucher

Profile of Company

HavenWood is a family run organisation ensuring continuous personal attention to detail for all our residents. HavenWood are committed to providing care in a secure and friendly environment through the provision of person-centred care plans and evidence-based practice. HavenWood offer long and short stay facilities to people who require nursing care for:
Dementia / Alzheimer's Disease, Convalescence / Palliative / Hospice Care, Rehabilitation – such as post-operative, Stroke and Cardiac/ Respiratory Conditions associated with advancing age, Chronic Disabilities, Learning Disabilities, Acquired Brain Injury.

Problem to Be Solved

Fall detection and avoidance is a key issue for HavenWood and other nursing homes. Falls by elderly residence have a massive impact on health and health outcomes. In addition, these incidents place a huge resource burden on management and staff deflecting their attention away from enabling, proactive care towards monitoring, incident reporting and follow-up. The current solution is a PIR sensor placed in the room of residents-at-risk. It is powered by means of an adaptor and conveys limited information to staff, requiring advance knowledge by the team of which rooms have the units.

How Gateway Delivered Solution for Industry

The aim of the project is to scope a better solution to the PIR sensor-based nurse calling system with better improvements by performing below tasks:

- Analysis of existing nurse calling system
- We aim to describe the internet module interface on to the existing system (Includes old and new systems)
- Automatic WiFi setup for the Havenwood building
- Architecture to get detection alerts to mobile phones or email (count the number of detection)
- External power supply
- Alternative sensor which can be replaced in the place of existing sensor unit
- Sensor detection is performed and communicated over internet, later the data is decoded with the radio receivers.

The team in TSSG compared existing products available in the market based on a pre-agreed set of criteria and created a technology comparison table. The team then conducted a sensor analysis to create solutions to the existing PIR unit focusing on detection quality, along with a list of requirements and contingencies for future applications. However, converting internet signals to radio signals is not feasible to the above use case and is expensive technology therefore conversion of internet signals to radio signals was not achieved.

Impact for the Company

The work completed by TSSG has given HavenWood a better understanding of products and technology available which will enable the company to further invest in their sensor-based nursing calling system. This improvement in technology will enhance their ethos of providing personal attention to detail by increasing fall detection thereby increasing patient care.

Testimonial:
"The engagement and communication with the team in TSSG throughout the process was excellent and we were delighted with the support from Christine & Nithin. Hopefully we'll have the opportunity to work together again in the future."

Padraig Dolan, Managing Director Havenwood Retirement Villages

Contact us to find out how we can help you
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