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PolyU team develops new system for elderly care

October 10, 2018 | News

The safe and non-restraint system will help greatly improve the elderly's quality of life.



The Hong Kong Polytechnic University (PolyU) has developed eNightLog, a multi-function nighttime monitoring system for elderly with dementia, to track their respiration and activities in bed for preventing fall or wandering away.

The safe and non-restraint system, particularly designed for coping with the typical environment of nursing homes in Hong Kong, will help greatly improve the elderly's quality of life, while enhancing the efficiency and lessening the workload of healthcare personnel.

The non-contact and non-invasive eNightLog system is embedded with event sequence tracking and different kinds of remote sensing and imaging technologies, based on innovative algorithm developed by the Biomedical Engineering (BME) team of PolyU. This innovative technique has already been patented.

The research team will soon extend the functions of eNightLog system to detecting heart rate and body temperature, and connect the system with different kinds of smart devices such as electronic diaper. In addition, the system can also link with an ultrasound bladder volume detector to facilitate caregivers to take better care of their residents, especially in handling urinary incontinence. The team is exploring big data analysis to provide more preventive information for health care of elderly.