Projects target problems of the elderly

They aim to hasten recovery, help those with bad eyesight avoid accidents

BY FENG ZENKAI

ONE project helps to speed up recovery from injuries, and another aims to help those with impaired vision.

Researchers at Nanyang Polytechnic and the National University of Singapore (NUS) have come up with inventions to target these problems, which affect many elderly people here.

Singapore is ageing and it is estimated that by 2030, one in five Singaporeans will be 65 or older.

The two projects received funding from the Singapore National Medical Research Foundation in its latest round of translational research and development grants.

These are given to researchers to find practical uses for their research, which has clinical applications.

Nanyang Polytechnic’s Dr Edwin Foo, 45, who received $347,000 for his project, said it improves rehabilitation programmes.

Wireless sensors placed on a patient’s body track his movements and recovery progress during rehabilitation.

Using data from the sensors, therapists can tell which exercises are most helpful and eliminate those that no longer have an effect.

The system is also portable and patients can choose to make appointments at rehabilitation centres.

Another project targets those exercises in hospital wards, and possibly in their own homes in the future.

Researchers hope the system to be available in hospitals in two years.

Separately, researchers at NUS have come up with a system that helps people with impaired vision navigate a system using its on-board sensors and route guide.

Last year, 11 pedestrians died in road accidents. Half of them were 60 and older, and most of these elderly people had been jaywalking.

The researchers hope to reduce this figure.

NUS professors Andrew Nee and Patricia Ong, who are the project leaders, said they also prevent elderly people with vision problems from falling due to memory or eyestrain from becoming bent or disoriented.

Professor Nee (45), said: “We’ve created a prototype of an auditory warning system for finding your surroundings.”

The team plans to reduce the size and cost of the components. They said it was too early to tell when a commercial product might be ready, but added: “It could cost less than $100.”

But they noted that such a product would most likely need government assistance, since one component has to be installed in cars here, possibly in the in-vehicle unit, currently used for CashCards.

In 2009, 21 projects have been given grants of up to $500,000 from the National University of Singapore Foundation, including the latest batch.

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Second sports diploma for 62-year-old enthusiast

Mr Tan, 62, has climbed the 11,741-foot high K2 Karakoram mountain in Pakistan, India, and the highest mountain in Africa, the 19,340-foot Mount Kilimanjaro.

When going to a specific place

The address of the place is tapped into the nanosensor, which generates a route using the Singapore General Hospital in part-

Taro left to Yong Siak St

The camera on the phone captures traffic lights, signals and other obstacles.

The headset gives pedestrians where to turn.

The headset can be used for the blind.

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