New app to help seniors live more independently

It makes use of smartphone sensors to detect issues such as dementia and falls

Audrey Tan

Taking advantage of the capabilities of today's smartphones, a mobile app could soon give caregivers a way of tracking old-age problems, such as dementia and falls, without having to be physically present with their charges.

Designed by a team of six researchers from the National University of Singapore (NUS), the app makes use of multiple sensors usually present in any smartphone.

These sensors can track, in real time, things such as movement, location and light and sound levels.

When a circling motion is detected, it could mean the elderly person is lost. A sudden change in height may mean a senior had suffered a fall.

Long periods of inactivity can also be highlighted.

In such cases, an alert can be sent. It could be in the form of a text message or a phone call.

"It provides caregivers a way to check on seniors without being with them all the time and without intrusive means such as installing cameras in the house," said Professor Ellen Do, one of the researchers behind the app.

She is the co-director of the Keio-NUS Connective Ubiquitous Technology for Embodiments (Cute) Centre, where the application was developed.

Called SilverSense, the app will be tested by 30 seniors from next month in a collaboration
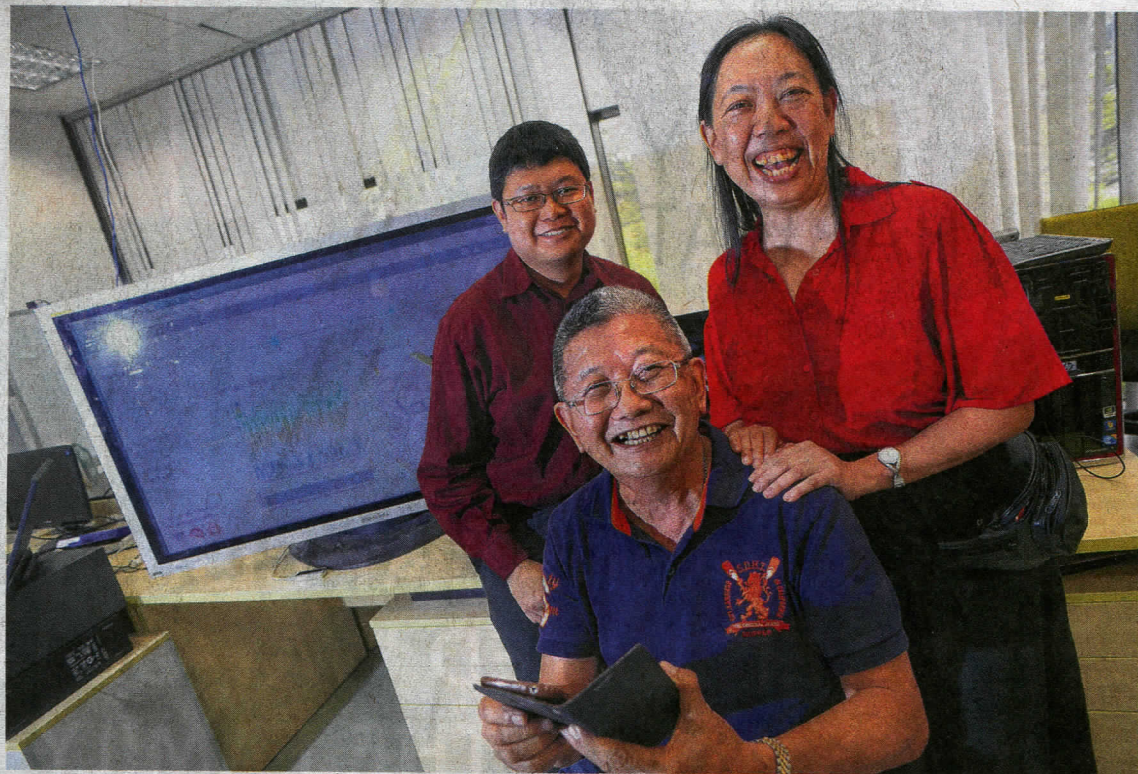
Mr Goh Soo Heong (centre), 64, checking out the SilverSense app, which uses smartphone sensors to detect old-age issues, with two of the NUS researchers behind the app, Mr Lu Weiquan (left) and Professor Ellen Do. ST PHOTO: JAMIE KOH

with the People's Association (PA) Active Ageing Council. They will try the app for nine months before giving feedback to finetune the application, which its developers hope to put on the market by 2017.

Dr Tan Yong Seng, chairman of the PA Active Ageing Council and a senior consultant at the Mount Elizabeth Medical Centre, said: "By 2030, there will be close to a million seniors in Singapore who are more than 60 years old.

"The application can help detect potential problems. If a senior keeps tripping, it could be a sign of a mental disorder or Parkinson's disease."

The technology will also help seniors be more independent, said Mr Gerard Ee, chairman of the Council for Third Age (C3A) – a government-funded group that promotes active ageing.

He added that it was "heartening" that educational institutions were developing technology to help seniors, saying "innovation is important with an ageing population in Singapore".

St Luke's Hospital and Elder-Care corporate and community relations executive Jonathan Yap said that while the technology was a "good initiative", many seniors use only simple mobile phones.

Instead, he suggested that the technology be incorporated in a "wearable device" that is easy to use.

Mr Goh Soo Heong, who is 64 years old, is eager to try the app, saying it will allow family members to intervene before "something happens".

The app will be exhibited during InnovFest – NUS Enterprise's annual innovation conference and exhibition – on Tuesday and Wednesday.

✉ audreyt@sph.com.sg