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Caring for the caregiver



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Facial recognition to boost public safety set to become faster, more efficient with new \$42.4m Singtel-NTU lab



(From left) Deputy Prime Minister Teo Chee Hean, President-Designate of Nanyang Technological University (NTU) Professor Subra Suresh and Permanent Secretary (Public Service Division) Yong Ying-I, looking at the smart home sensors predictive AI for the elderly developed by NTU scientists. PHOTO: NANYANG TECHNOLOGICAL UNIVERSITY

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SINGAPORE - Traditional surveillance technology requires the transmission of data back to a central server for facial recognition to take place.

A new research laboratory in Singapore is working on a faster way to do this, by letting the camera do the computational work through artificial intelligence (AI).

This enhanced surveillance camera, called Claritas, is one of the projects which researchers will be working on in a new \$42.4 million corporate laboratory set up by telco Singtel and the Nanyang Technological University (NTU) to develop and commercialise digital technologies.

The new Singtel Cognitive and AI Lab for Enterprises (Scale@NTU) will focus on AI, data analytics, robotics and the Internet of Things.

The collaboration, which will last for five years, will work on commercialising such technology for use in areas such as public safety, transportation and healthcare.

Internet of Things refers to a network that connects devices such as home appliances and sensors, allowing them to share data and communicate.

The Claritas system, developed by Singtel, uses a new technology called edge analytics, where camera sensors can process and recognise faces in real time.

At the Scale@NTU, researchers will look at ways of augmenting this facial recognition process. One such software will let a computer recognise the same person from different angles taken from different cameras, to make tracking people down more efficient.

Deputy Prime Minister Teo Chee Hean, who was at the signing of the laboratory's research agreement at the Singtel Comcentre in Orchard Road on Monday (Nov 4), said the Scale@NTU corporate laboratory is expected to train more than 200 engineers, researchers and students.

"These solutions have potential cross-domain applications, particularly in digital services and urban solutions," said Mr Teo.

Mr Bill Chang, chief executive of group enterprise at Singtel, said some projects could hit the market as early as a year from now.

Another project the laboratory is working on looks at how the elderly who are living alone at home can be monitored in an unobtrusive manner to detect problems.

Using light, infra-red, temperature and motion sensors, a computer software can model a virtual simulation of what an elderly person is doing at home without actually visually monitoring them, for example, using an avatar.

Singtel will also work with the Agency for Science, Technology and Research (A*Star) on a master research collaboration agreement.

Under this five-year agreement, A*Star and Singtel will work together to use robots and automation to improve manpower efficiency.

Such technology includes a concierge service robot which can recognise voice commands and guide visitors to their destinations.

Also on the cards is software that lets users tell a robot what to do and allows it to learn new things without the need to reprogram it.

Professor Tan Sze Wee, executive director of A*Star's Science and Engineering Research Council, said: "We will continue to do a lot more public-private partnerships such as this. The science being done in our universities and at A*Star is as good as any in the world.

"Now the challenge is how to push this to see success in new products and solutions, and that's where working with companies to understand the operating environment is very important."

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