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TCE GUEST TALK

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Room 861 EE Building

Host: Raphi Rom

IoT-Enabled Community Care Provisioning for Sustainable Ageing-in-Place: A Singapore Example

Abstract

In 2014, 12.4% of the population in Singapore were above 65 years of age and this is projected to increase to 19% by 2030. Among them, those living alone is likely to increase to 83,000 by 2030, up from 35,000 today. The ability to “age in place” - living where you have lived for years with reasonable quality of life, is especially important for the latter group. While Internet of Things (IoT)-enabled ambient intelligence environments that allow caregivers to remotely monitor a loved one’s activities 24/7 are emerging, most of the above systems are technology-centric, operate in silos and do not tie in with end-to-end care provisioning. Moreover, the elderly community exhibit huge variations in their living patterns and behaviour and a one-size-fits-all system will probably not work for all. In this presentation, I will talk about SHINESeniors, an SMU-initiated effort to tackle the above issues through the integration of ambient intelligence with care provisioning, and the personalization of such systems. This research project, supported by the Ministry of National Development and National Research Foundation under the Land and Liveability National Innovation Challenge (L2NIC) funding, is a collaborative effort with A*STAR, Eastern Health Alliance, a voluntary welfare organization, GoodLife!, Tata Consultancy Services, Ministry of Health, Housing and Development Board, and Urban Redevelopment Authority in Singapore.

Bio

Dr. Hwee-Pink TAN currently leads a team of 10 technology and social science researchers to bring together Internet of Things technologies, and social-behavioural research to enable and sustain ageing-in-place, leading, in a broader sense, to intelligent and inclusive societies. Prior to joining SMU in March 2015, he spent 7 years at the Institute for Infocomm Research (I²R), A*STAR, where he was a Senior Scientist and concurrently the SERC Programme Manager for the A*STAR Sense and Sense-abilities Program. In this programme, he led a team of 30 full-time research scientists and engineers to design, pilot and evaluate architectures to support large scale and heterogeneous sensor systems to enable Smart City applications. In recognition of his contributions, he was awarded the I²R Role Model Award in 2012 and 2013, and the A*STAR Most Inspiring Mentor award, TALENT and Borderless Award in 2014. He is a Senior Member of the IEEE, has published more than 100 papers, has served on executive roles for various conferences on wireless sensor networks, and is an Area Editor of the Elsevier Journal of Computer Networks. He was Deputy Chair for the ITSC IoT Committee between July 2014 and March 2015. Lastly, he also recently co-founded and chairs the technology and innovation committee of the Stroke Support Station, a registered charity with a focused mission to help Stroke Survivors re-learn and enjoy active living for a better quality of life.