Publication: Open Gov Asia Online
Date: 17 July 2018
Headline: Singapore Management University and Pestech sign MoU to apply Artificial Intelligence to Pest Management

Singapore Management University and Pestech sign MoU to apply Artificial Intelligence to Pest Management

Image credit: Twitter feed of Singapore Management University (@sgSMU)

The two-year collaboration will explore usage of AI to fight the rodent menace. The strategy will see artificial intelligence applied to data collected through rodent sensors to determine rodent species, clusters and the unique behaviours leading to more efficient solutions.

Singapore Management University (SMU) recently announced that it has signed a Memorandum of Understanding (MoU) with Pestech Holding (S) Pte Ltd ('Pestech') to apply artificial intelligence on rodent sensors data in order to establish rodent behavioural patterns and predict different territorial species within a shopping mall.

The two-year collaboration aims to create a safer and healthier living environment for all, and to support Singapore's Smart Nation push.

The MOU was signed by Mr Tong Kien Seng, Founder of Pestech, and Associate Professor Rajesh Balan, Director of LiveLabs Urban Lifestyle Innovation Platform at the School of Information Systems in SMU, on the sidelines of Clean Environ Summit Singapore 2018.

Under the MOU, both parties will develop and test the artificial intelligence and analytics system using large real-time rodent sensor datasets from Pestech. The Parties will research using new methods, algorithms and technologies to discover fresh insights from these large sensor datasets. Pestech will contribute its collected data of rodent activity within malls, and where the rodents are most active in the malls. It has rodent sensors in more than 10 malls around Singapore. Pestech's infrared sensors are installed in the malls' ceilings above food and beverage tenants and shared common ceiling space between tenants to detect the rats' movements.

Mr Tong Kien Seng, Founder of Pestech said, "This collaboration with SMU is part of our overall strategy of utilising advanced technology to enhance our solution offerings. We aim to make our proprietary RodentEye and Pestech the best rodent surveillance system and the leading expert company respectively in solving any given rodent issue in Asia. The end system capabilities should provide Pestech the ability of knowing the in-depth information of each rodent problem in a mall / building more completely, including proper cluster distribution, different territorial species and activities pattern."

Publication: Open Gov Asia Online
Date: 17 July 2018
Headline: Singapore Management University and Pestech sign MoU to apply Artificial Intelligence to Pest Management

LiveLabs' artificial intelligence programming will analyse the data and provide more accurate details, such as identifying the different rodent species, the number of rodent clusters, and the unique behaviours of each species such as feeding and movement patterns.

"Instead of having to wait through the night to catch the rodents, they can use the algorithm and the data provided by our AI to predict the exact places and times that the rodents will likely be at," a LiveLabs spokesman is reported to have said.

The data will provide hourly and daily trends of the rodents' locations and behavioural patterns, allowing LiveLabs to suggest the most appropriate pest control methods.

Associate Professor Rajesh Balan, Director of LiveLabs Urban Lifestyle Innovation Platform said, “We are excited to take our experience in sensing and extracting actionable insights from human behaviour to help business outcomes into a brand new domain of rodent control! This partnership with Pestech presents an exciting opportunity to innovate in this space and achieve our goal of improving our environment and overall wellbeing.”

LiveLabs has been developing a variety of advanced, mobile-centric analytics and customer engagement technologies for indoor public spaces, such as malls, convention centres and office campuses. LiveLabs is a city-scale research test-bed, supported by the government, that is focused on mobile computing technologies. It provides test-beds for large-scale consumer behavioural trials and social experiments on real people in real environments, with a special focus on urban lifestyle services for indoor public spaces.

Thus, Pestech shall contribute its experience in the pest management business, as well as its expert knowledge and skills in the areas of IoT sensors, wireless data acquisition, web-based rodent activity Heatmap with sensor data analytics that serve the sector. LiveLabs Urban Lifestyle Innovation Platform will contribute its capabilities and resources in location-based solutions and data analytics.