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Adrian M. Reodique | June 20, 2016

PS Solutions Corp (PSSOL) - a wholly owned subsidiary of telecommunications and internet company SoftBank Group - has entered into a software license agreement with Singapore Management University (SMU) through its School of Information Systems (SIS).

The agreement provides PSSOL worldwide exclusive rights to use a software module developed by SMU, which enables high-speed processing of geofence queries as well as the application of the software module to solutions which need spatial data analysis in real-time.

The geofence query engine is a mechanism which allows the user to determine whether an object is within the region by setting a virtual perimeter (fence), and automatically calls a preset procedure if the object is detected.

Additionally, a team of researchers at SMU SIS led by Associate Professors Kyriakos Mouratidis and Baihua Zheng worked with PSSOL to research and validate, and develop an algorithm that could process many simultaneous geofence queries on large-volume incoming streams of data at very high speed and efficient way.

The agreement allows the PSSOL to use the software license of the algorithm commercially.

"Our two SIS faculty members had both been doing academic work and high quality academic publishing in the area of high performance spatial data management and analytics methods for many years, and were delighted to hear about a specific real-world business problem that would benefit from their prior work," said Professor Steven Miller, SMU's Vice Provost (Research) and Dean (School of Information Systems).

"It was an excellent example of how the university group and the industry team can productively work together. We will also be delighted to see new projects where high quality academic work can be used to contribute to real-world economic value creation in partnership with a company," he added.

The software module is also expected to be applied on the Internet of Things (IoT) solutions of PSSOL that may be boon on various fields.

"PS Solutions develops and offers several IoT solutions that can be utilised in various fields. One such instance is "e-kakashi", which collect agricultural data from the sensor network installed on an agricultural field, and visualise the data to share the cultivation method and know-hows. Also, "Setouchi Karen", a rental electrical motorcycle solution, installed with IoMT (Internet of Moving Things) technology connecting to mobile communication network, is another example," said Masanori Ueno, Director of the Board of PSSOL.

"We expect that this technology could be applied to IoMT domain, or for drones (unmanned aerial vehicle), by determining whether a monitored object would enter or reaches to a dangerous region or a particular area and that triggers next dynamic action. We will further collaborate with universities or other research institutes having advanced technologies, and will enhance research and development for new value creation," added Ueno.

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