Singtel, NTU and NRF Singapore establish S$42.4 million corporate lab to accelerate AI and data science innovation

Singtel and A*STAR have also partnered to work together on smart building automation systems, robotics and IoT applications for boosting operating efficiencies in various industries.
Singtel, NTU and the National Research Foundation Singapore (NRF) have entered into a five-year partnership to establish a S$42.4 million corporate lab, to be called Singtel Cognitive and Artificial Intelligence Lab for Enterprises (SCALE@NTU).

Around 100 researchers from Singtel and NTU will work at SCALE@NTU, while another 200 research engineers, graduate and undergraduate students will also be trained in the lab. The partners, through their collective expertise and resources, aim to accelerate innovation in the fields of AI, advanced data analytics, robotics and smart computing.

Applications will be developed at the lab for use in the areas of public safety, smart urban solutions, transportation, healthcare and manufacturing.

For instance, the research by SCALE@NTU could help resolve various challenges faced by cities in keeping their infrastructure facilities in excellent running condition. Smart sensors embedded with AI can enable city governments to analyse data from infrastructure facilities and conduct maintenance works only when necessary, to achieve optimal performance for these assets. This would help cut operating costs for cities that currently spend significant amounts on routine maintenance, whilst not compromising on infrastructure quality and performance standards.

Over the next five years, this partnership is also expected to expand the product range of Singtel and its regional ICT subsidiary, NCS.

NTU was ranked world No. 2 by Nikkei and Elsevier for having the most-cited research papers in AI and data science. At the launch of the lab, AI innovations were showcased such as AI powered sensors that can identify and distinguish between different sounds, processing data on the spot. Placed outdoors they could help monitor the environment, picking up calls for help or monitoring road safety. Inside the home, an AI-powered sensor network could help monitor the elderly, helping gain insights into their life and building a picture to predict their health and well-being. Another innovation showcased was a surveillance software that can identify persons-of-interest in a video and search footage in other cameras for the same person.

Professor Lam Khin Yong, NTU’s Acting Provost, Chief of Staff and Vice President (Research) said, “For Singapore to achieve its Smart Nation vision, we have to keep pushing the frontiers of AI and develop innovative ways to process, analyse and utilise big data. This is how the collaborative effort between Singtel and NTU on cognitive computing will make a huge impact, improving productivity for businesses while making our cities smarter and more efficient.”
This collaboration marks a significant step for Singtel to develop intellectual property in emerging technologies to support enterprises in their digital transformation and Singapore’s Smart Nation objectives. As businesses face the rising threat of technological disruptions, companies are constantly seeking innovative ways to gain deeper insights through data analytics, better engage their customers and transform their operations through digitalisation. To help companies address these challenges, we are stepping up our R&D efforts to develop deep capabilities in these focused areas,” added Mr. Bill Chang, Chief Executive Officer, Group Enterprise at Singtel.

Mr George Loh, NRF Singapore’s Director (Programmes), said that this latest collaboration between Singtel and NTU underscores the significance of developing research expertise and capabilities in advanced analytics for Singapore to be a leading provider of smart city solutions.

“The lab will provide a platform for researchers and engineers from both academia and industry to work together to translate cutting-edge research into digital solutions and offerings by our companies, while nurturing a pipeline of digital talent who can drive Singapore’s Smart Nation journey,” he said.

**Partnership between Singtel and A*STAR**

Singtel and A*STAR will also work together on projects including smart building automation systems, robotics and Internet of Things (IoT) applications that could help boost operating efficiencies in various industries. For instance, robots can be deployed to handle biohazardous waste, allowing companies to deploy their employees to undertake higher value-added jobs.

Such technologies can be tested on Singtel’s NarrowBand-IoT and 5G mobile network in a model factory to be set up by A*STAR next year. A*STAR’s ‘Model Factories’ initiative simulates production environments where companies can experiment and learn new manufacturing technologies, allowing SMEs to test new technologies with the help of public sector researchers before adopting into their factories.

Professor Tan Sze Wee, Executive Director of the Science and Engineering Research Council at A*STAR, commented, “Public-private partnerships and open innovation pave the way for successful projects that could benefit the Singapore economy and lives of Singaporeans. In this age where disruptions are emerging rapidly, such joint collaborations are all the more valuable. A*STAR is happy to partner with Singtel to drive R&D in the latest technologies towards applications across industries.”