NTU Singapore launches S$45 million centre for innovative robotics technologies

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Nanyang Technological University, Singapore (NTU Singapore) launched the Centre for Advanced Robotics Technology Innovation (CARTIN) this week to develop affordable, safe, and user-friendly robotics technologies that will reinvigorate and reimagine various sectors in Singapore.

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This is in line with Singapore's Research, Innovation, and Enterprise 2025 plans, in which robotics is one of the national priorities. CARTIN will see NTU scientists working closely with robotics research entities at the National University of Singapore (NUS) and the Agency for Science, Technology and Research (A*STAR).

The research centre, located on the NTU Smart Campus, was launched by Dr Tan See Leng, Minister for Manpower and Second Minister for Trade and Industry.

NTU President Professor Subra Suresh said: "The launch of the Centre for Advanced Robotics Technology Innovation (CARTIN) is a timely and natural extension of NTU's work to add to the existing robotics and autonomous systems research efforts in Singapore and create a critical mass for the development and deployment of ground-breaking and innovative technologies. Expanding NTU's impact on industry and society by translating inventions and creativity into outcomes that enhance economic benefits and quality of life is one of the key pillars of the NTU2025, the University's five-year strategic plan."

NTU Senior Vice President (Research) Professor Lam Khin Yong said: "With a worldwide talent crunch and increasing digitalisation accelerated by an ageing population and the ongoing Covid-19 pandemic, many sectors are turning to 2 automation. The research innovations developed at CARTIN will go a long way in tackling manpower shortage while increasing productivity and efficiency. A unique aspect of the CARTIN is its ecosystem, which allows for close collaboration and involvement of industry partners from the outset to identify industry needs, which in turn fuel the research at CARTIN. This also means that research solutions can be testbedded, demonstrated, and refined in real-world settings, ensuring a smooth transition as research outcomes at CARTIN are deployed in industry."

Professor Quek Tong Boon, Chief Executive, National Robotics Programme (NRP) and Co-Chair of CARTIN'S Governing Board, said: "NRP is pleased to have CARTIN as a partner to undertake research and development that focus

developing application driven technologies, CARTIN will also be a valuable platform that can contribute to NRP's effort to grow a vibrant robotics ecosystem in Singapore in three other dimensions – talent development, enterprise development and greater adoption of R&A (robotics and automation) solutions in our industry."

The Centre for Advanced Robotics Technology Innovation (CARTIN) aims to create an ecosystem that brings together research entities with industry partners and public agencies who identify the gaps to be plugged and provide a testbed for these robotics solutions. Such an ecosystem will allow for basic research to be translated into technologies that can be deployed in industry in a seamless manner.

CARTIN will draw upon the expertise of scientists at NTU's Connected Smart Mobility Lab, Robotics Research Centre, Centre for Systems Intelligence and Efficiency, and the Centre of Excellence for Testing & Research of Autonomous Vehicles at NTU.

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