NTU Singapore and Naval Group to jointly develop autonomous technologies for vehicles and vessel navigation

Singapore, 28 September 2023

**Nanyang Technological University, Singapore (NTU Singapore) and the French shipbuilder Naval Group, through its subsidiary Naval Group Far East, are collaborating to drive autonomous technologies for vessels and unmanned vehicles.**

Two research agreements were inked on 28 September 2023 between NTU Associate Vice President (Strategy & Partnership) Professor Lam Kwok Yan and Naval Group Far East Managing Director Luc Martinelli. These projects amount to S$ 2.3 million.

One project focuses on developing a semi-autonomous vessel navigation system that automates path planning to avoid collisions. The other focuses on developing an artificial intelligence-powered mission planning tool that can allow a fleet of unmanned vehicles to work in tandem and alter its course of action real time in response to emergencies.

These technologies could find applications in areas such as vessel navigation, search and rescue missions, environmental monitoring, and naval operations.

This partnership draws on the scientific expertise of NTU’s Centre for Advanced Robotics Technology Innovation, a S$45 million research centre launched in 2022, and on Naval Group’s industrial experience and rich heritage in naval engineering, shipbuilding and maritime defence innovative solutions. In particular, in its R&D domain “smart naval forces”, its R&D centre of excellence in Singapore works in close cooperation with the Technical Department and the Autonomous Systems Department.

Through this collaboration, Naval Group and NTU hope to leverage their combined expertise and excellence to conduct innovative research, and to create a vibrant innovation ecosystem that encourages collaboration between academia and maritime industry, thereby facilitating the swift translation of research into practical applications.

NTU Associate Vice President (Strategy & Partnerships) Professor Lam Kwok Yan said: “As a university committed to creating real-world impact, NTU’s research and development efforts are inspired by industry needs, with an eye to develop innovative solutions that can be deployed by industry. NTU’s partnership with Naval Group leverages our strengths in robotics and artificial intelligence, and is yet another example of the University working closely with industry partners to develop advanced solutions that can be tested, demonstrated, and refined in real-world settings.”

Luc Martinelli, Managing Director of Naval Group Far East commented: “This partnership marks a new step in our development in Singapore. We are honoured to be working with NTU’s top researchers and its advanced robotic innovation centre. This partnership with Singapore’s brilliant ecosystems reinforces the group’s commitment to integrating the best of science and research in all our products to better serve our customer.”

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**About Naval Group**

Naval Group is a partner to its customers' maritime sovereignty. An international player in naval defense and heir to French naval know-how, Naval Group develops innovative solutions to meet the needs of navies. Present throughout the entire life cycle of the ships, the group designs, builds, integrates and maintains submarines and surface ships, as well as their systems and equipment, through to dismantling. It also provides services for shipyards and naval bases. A high-tech company, it builds on its exceptional expertise, its unique design and production resources and its ability to set up strategic partnerships and successful transfers of technology. Attentive to the challenges of corporate social responsibility, Naval Group is a member of the United Nations Global Compact. With operations on five continents, the group has a turnover of 4.3 billion euros and employs 16 029 people (full-time equivalents / 2022 data).

Naval Group Far East is a local subsidiary of Naval Group, a world leader in naval defence. The Centre of Excellence within Naval Group Far East is dedicated to advancing naval engineering and technology, driving innovation in maritime solutions, and fostering talent development in the naval sector. Via its geographical presence, the Centre of Excellence also aims to reinforce Naval Group's cooperation with the local industry and academia by co-developing innovative solutions in Artificial Intelligence. The group’s commitment to pushing the boundaries of naval technology has led to numerous breakthroughs in navigation systems, autonomous vessels as well as defence area.

**About Nanyang Technological University, Singapore**

A research-intensive public university, Nanyang Technological University, Singapore (NTU Singapore) has 33,000 undergraduate and postgraduate students in the Engineering, Business, Science, Medicine, Humanities, Arts, & Social Sciences, and Graduate colleges.

NTU is also home to world-renowned autonomous institutes – the National Institute of Education, S Rajaratnam School of International Studies, Earth Observatory of Singapore, and Singapore Centre for Environmental Life Sciences Engineering – and various leading research centres such as the Nanyang Environment & Water Research Institute (NEWRI) and Energy Research Institute @ NTU (ERI@N).

Under the NTU Smart Campus vision, the University harnesses the power of digital technology and tech-enabled solutions to support better learning and living experiences, the discovery of new knowledge, and the sustainability of resources.

Ranked amongst the world’s top universities, the University’s main campus is also frequently listed among the world’s most beautiful. Known for its sustainability, NTU has achieved 100% Green Mark Platinum certification for all its eligible building projects. Apart from its main campus, NTU also has a medical campus in Novena, Singapore’s healthcare district.

For more information, visit www.ntu.edu.sg

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