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News Release

DSTA Partners Korean Register To Advance Verification And Validation For Autonomous Maritime Systems

Singapore's Defence Science and Technology Agency (DSTA) and the Republic of Korea's Korean Register (KR) have signed a Memorandum of Understanding (MOU) to co-develop a framework to strengthen verification and validation (V&V) for perception and autonomy technologies used in Unmanned Surface Vessels (USVs).

The agreement brings together DSTA's expertise in systems engineering with KR's global leadership in maritime policy, certification and safety standards. Both organisations will jointly develop a V&V framework to assess AI-based perception algorithms and other core technologies that enable safe and reliable USV operations.

DSTA partnered with KR in recognition of its integrated approach encompassing policy, technology, and evaluation, as well as its extensive technical expertise. Through the project, the two organisations will play complementary roles in promoting the international standardisation of safety verification frameworks for autonomous maritime systems.

Mr Ong Li Koon, DSTA's Director Naval Systems said, "As the maritime sector moves towards broader adoption of autonomous technologies across defence and commercial domains, our partnership with Korean Register to co-develop a unified validation and verification framework will help raise the bar for the safety of autonomous navigation globally."

Mr Kim Daeheon, KR's Executive Vice President, said, "This collaboration will support the development of robust test methodologies and safety guidelines for AI-based USV

systems. Our goal is to enhance the safety and reliability of maritime technology, thereby building public and regulatory confidence in the deployment of autonomous vessels.”

KR plans to leverage this project to further strengthen its role in the maritime AI certification domain and expand global partnerships. The outcomes of the joint research are expected to help shape international standards and regulatory discussions, contributing to the establishment of a trusted global framework for autonomous ship technologies.

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About Defence Science and Technology Agency

The Defence Science and Technology Agency (DSTA) is a leading technology organisation that drives innovation and delivers state-of-the-art capabilities to make the Singapore Armed Forces a formidable fighting force. Harnessing and exploiting science and technology, our engineers and IT professionals leverage multidisciplinary expertise to equip our soldiers with advanced systems to defend Singapore. DSTA also contributes its technological expertise to support national-level developments. To achieve our mission, DSTA excels in systems engineering, digitalised platforms, cyber, software development and more.

Visit www.dsta.gov.sg for more information.

About Korean Register

Korean Register (KR) was established in 1960 with the purpose of promoting safety of life, property and the protection of the marine environment. KR currently classes an international fleet of 3,191 vessels totalling 89 million GT. It is headquartered in Busan, South Korea with a network of 80 offices around the world. KR is authorized to perform statutory and certification services in 80 countries around the world.

Visit www.krs.co.kr for more information.