国土交通省
Ministry of Land, Infrastructure, Transport and Tourism

Press Release

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Japan-U.S. Joint R&D on AI Shipbuilding Technologies Launches

MLIT has been promoting R&D on advanced shipbuilding technologies utilizing artificial intelligence (AI) with the aim of achieving substantial improvement in productivity within the shipbuilding industry.
As part of these efforts, MLIT has now officially launched a Japan-U.S. collaborative R&D project to introduce AI shipbuilding technologies.

1. Background

Last October, Minister Kaneko and U.S. Secretary of Commerce Lutnick signed a Memorandum of Cooperation Regarding the Shipbuilding Between the Government of Japan and the Government of the United States of America (the MOC), which includes fostering of the development of advanced shipbuilding technologies[*1].
From this year, MLIT has been promoting the development of various AI shipbuilding robotics that can be utilized in shipbuilding processes, such as plate bending and welding, as well as the development of an AI simulation platform necessary to maximize the effectiveness of these robotics.
As part of this initiative, Japan and the U.S. will jointly develop AI shipbuilding robotics and related technologies under the framework of the MOC, with a view to their early deployment and practical implementation.

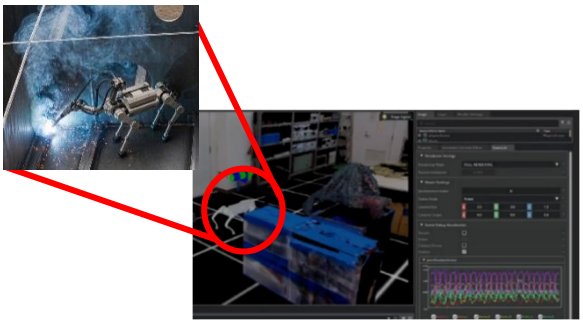
*1 This project is being implemented as the MLIT's "Technology Development Project Contributing to the Realization of Next-Generation Shipyards through AI Utilization" under the Cabinet Office's "BRIDGE Program (Program for Bridging Research and Development and Society 5.0)."

2. Japan-U.S. Collaborative Research and Development Project

From July 6 to 10, the U.S. team taking the role of developing the production-process simulation platform required for the operation of AI shipbuilding robotics visited Japan, marking the launch of the joint R&D project with their Japanese counterparts.[*2]
The development teams visited Japanese shipyards[*3] to review on-site conditions and challenges associated with the introduction of robotic technologies. Furthermore, they confirmed the development schedule and responsibilities with the objective of establishing, by the end of March, an AI simulation platform capable of incorporating actual ship hull blocks and shipyard environments to evaluate robot operations and related processes. They also discussed methods for conducting demonstration at both Japanese and U.S. shipyards.

*2 Development teams for this part of the Project
U.S.: University of Michigan, Massachusetts Institute of Technology (MIT), American Bureau of Shipping (ABS)
Japan: Osaka University, Yokohama National University, MTI, ClassNK, Namura Shipbuilding, Fukuoka Shipbuilding, MLIT, NMRI, and others

*3 Fukuoka Shipbuilding, Japan Marine United



Simulation of AI Shipbuilding Robot (Image)

Kickoff Meeting of the Japan–U.S. Teams

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