

Integrated Port Logistics Chair



京都大学

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 Endowed by Specialists Center of Port and Airport Engineering (SCOPE) /Coastal Development Institute of Technology (CDIT) /
 Waterfront Vitalization and Environment Research Foundation(WAVE)

 Research into upgrading global logistics and
 port infrastructure management in line with developments in ICT


Research theme

This endowed program is engaged in research focusing on developments in ICT, as below:

- 1) Research into upgrading the systems for port logistics in line with changes in the environment surrounding trade and logistics
- 2) Research into risk management in the port logistics resulting from natural disasters
- 3) Research into improving efficiency in the port infrastructure maintenance cycle

Outline

Along with the economic development of Asian countries and changes in international industrial structures, the relevant supply chain is increasingly global, giving rise to various new transportation requirements. Among relevant initiatives, the utilization of ICT has allowed rapid progress in i) constructing platforms for sharing port-related data by digitalizing various port procedures and information; ii) ensuring traceability, with access to information on the location of freight and its transportation status; and iii) the automation of stevedoring in the port and of transportation in the hinterland of the port.

Risk management is also a serious issue for global logistics, both in terms of production by companies and of people's lives. It is important that ports, and maritime transportation in general, continue to function even when natural disasters or accidents occur, maintaining the reliable and safe logistics and minimizing the impact on society.

Furthermore, maintaining large number of port facilities that supports international logistics is due in Japan at a time when there is growing concern about labor shortages because of low birth rates and the aging of society. Thus, higher efficiency in the infrastructure maintenance cycle is an extremely important issue, and there are plans to utilize ICT to make relevant improvements and to significantly increase efficiency, from the design and construction stage through operation and maintenance.

Based on the above conditions, this endowed program is engaged in research related to upgrading the global logistics and port infrastructure management in line with developments in ICT.