Digital Transformation Project Team

With the research goal of Developing strategies and business models to realize Digital Transformation (DX) of the maritime industry, this project team is working on the social implementation of individual elemental technologies such as shipbuilding DX, hull form design DX, etc.



realization strategy

Production DX: Digital infrastructure technology for shipbuilding

Establishment of Production DX through the realization of a shipbuilding design and production system that seamlessly handles basic design, detailed design, production design, and production planning, and the development of a construction simulator that works with the system.

Hull form design DX: Digital infrastructure for hull form design

Establishment of Hull Design DX by automation and digitalization of tank tests, standardization and DB of measurement data, and fusion of CFD calculation results and measurement data.

Hull structure digital twin

Development of real-time data assimilation technology for monitoring the state of vessels navigating in actual seas and real-time data assimilation with numerical simulation using DLSA, an integrated analysis system for the entire ship's load structure.

Ship power plant digital twin

Development of a ship's primary engine condition monitoring/abnormality diagnosis system and an engine skillful control system using digital twin technology for main engines.

Operation digital twin

Establishment of an advanced weather routing system by fusion of actual operation performance simulation and operation monitoring.