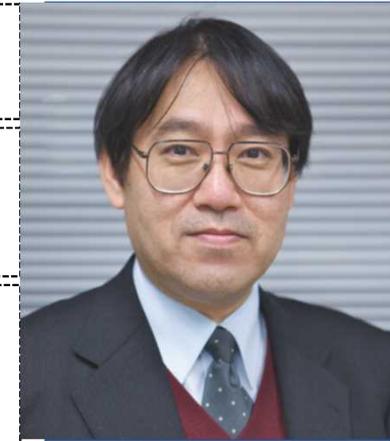


Sustainable and resilient social system for healthy nature

R&D Project Title (Registered) : Development of Infrastructure Management System for Sustainable and Resilient Society

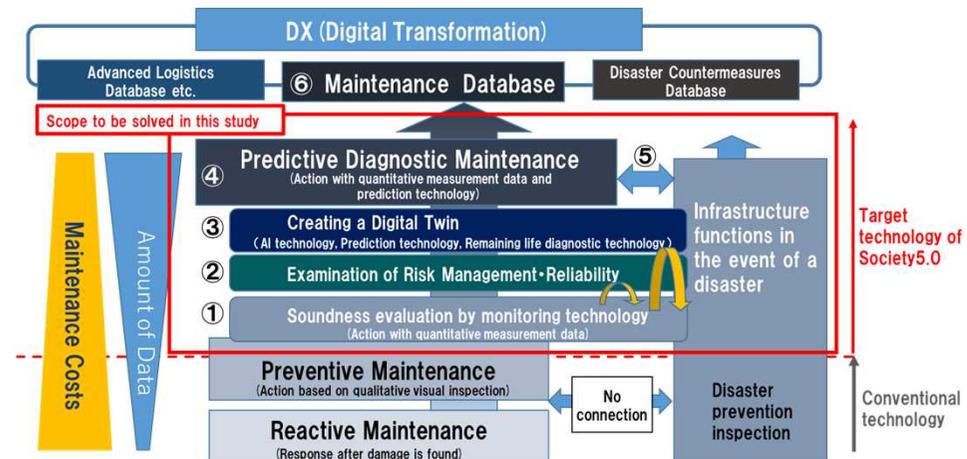
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Summary : A resilient infrastructure management system will be developed by structural damage diagnosis, its future prediction and disaster prevention simulation by utilizing AI technology for digital data acquired by versatile sensors during inspections.

- ① Introduce the concept of soundness evaluation by monitoring technology for preventive maintenance of infrastructures.
- ② Evaluate the risk of monitoring using sensors, and secure the reliability of monitoring technology.
- ③ Develop digital twin space consisting of physical information of infrastructure and its digital information acquired from infrastructures in order to diagnose and predict infrastructure conditions by utilizing AI technology.
- ④ Establish a structure management/maintenance system based on predictive diagnosis of infrastructure in digital space.
- ⑤ Create recycling-oriented society with resilience and sustainability by utilizing the DS system linked with disaster prevention information which can minimize the damage range by the disaster prevention simulation.



Outline of Maintenance/disaster prevention and mitigation management system in this research

https://www.um.t.kyoto-u.ac.jp/en/information/laboratory/StructuresManagementEngineering?set_language=en