

SEISMIC ASSESSMENT OF TRANSPORTATION & LIFELINE SYSTEMS

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Performance of transportation infrastructure (port, airport, road, bridge, railway, etc.) & lifelines (water, gas, electric, telecommunication, etc.) under seismic loads has critical importance in earthquake resiliency, emergency response and disaster management.

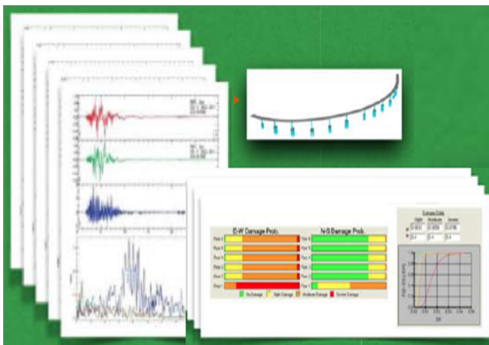
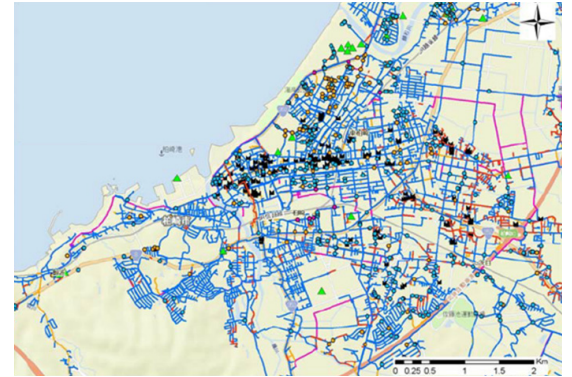
We evaluate seismic performance and provide a risk assessment for critical transportation infrastructure and lifeline systems.

- Develop earthquake-resistant design, strengthening, and rehabilitation approaches.
- Prepare and plan for earthquake response, management, and mitigation actions.
- Enable effective emergency response and disaster management.

Seismic Assessment of Transportation & Lifeline Systems

INVENTORIZATION

We deliver inventories of these systems at various levels of details that range from accurate digital modeling using high-end technology to typology-based identification according to the needs of a specific project.



SEISMIC VULNERABILITY & RISK ANALYSIS

We evaluate the seismic performance of each system and its components using methods that range from simplified analysis to advanced numerical simulations, develop fragility models and provide the risk assessment for individual systems as well as the interactions between systems.

DAMAGE IDENTIFICATION & COST ASSESSMENT

We provide post-earthquake damage identification (including underground lifelines) and cost estimation at varying degree of precision depending on the sophistication of the technology used (drones, lidar surveys, health monitoring systems, etc.) and the method of analysis employed.

