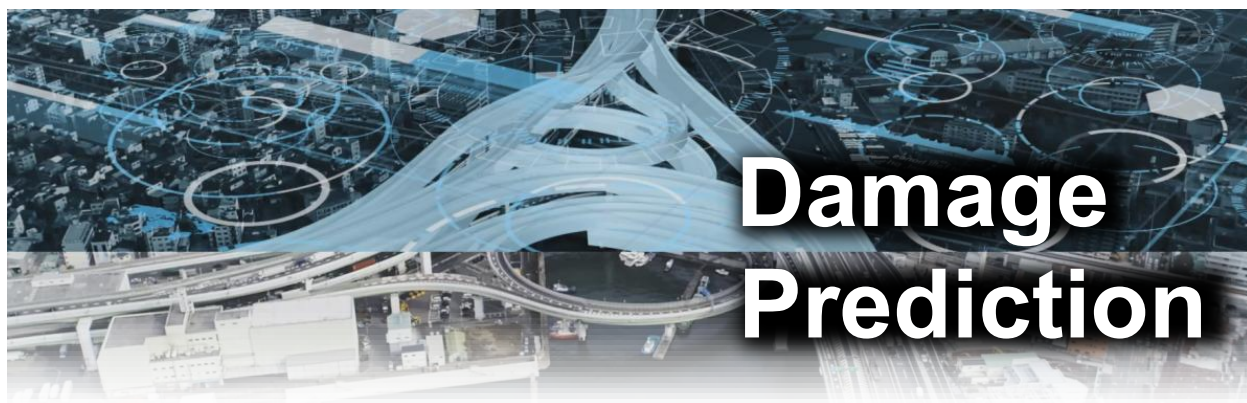


Expressways as Lifelines

Resilience against Seismic Challenges

Les autoroutes comme infrastructures vitales
Résilience face aux défis sismiques



Damage Prediction

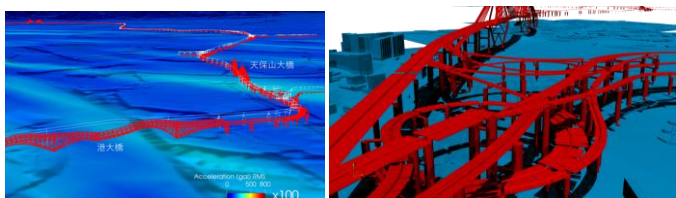
Cyber Infrastructure Management

Using sensor technology and robots to collect data, we recreate the infrastructure of the Hanshin Expressway in a cyber (virtual) space. Based on various simulations—such as future aging, earthquake damage, and traffic impacts—we make decisions to optimize road management in the physical (real) space.



Large-Scale Simulation Using Supercomputers

We conduct ground response analyses using multiple seismic sources, simulating earthquake damage across the network to evaluate the bridge structure damage on the route and measure section levels.



Knowledge Transfer



Insights from the 1995 Kobe Earthquake

The 1995 Kobe Earthquake severely damaged the Hanshin Expressway. We faced unimaginable conditions and worked tirelessly for early restoration. The 34 components here show the earthquake's power and actual damage. Earthquakes cannot be avoided, but sharing knowledge can help reduce future disaster damage.



[Visit the Earthquake Museum](#)

