

Structural Mechanics and Dynamics Subarea

Course of Architectural Engineering,
Division of Global Architecture,
Graduate School of Engineering

Osaka University

We aim at improving earthquake-resistant performance of buildings.
Our research topics are seismic performance of wooden structures,
base isolation system and soil improvement method, dynamic soil-
structure interaction and earthquake ground motion simulation.

URL : <http://www.arch.eng.osaka-u.ac.jp/labo-miyamoto/>

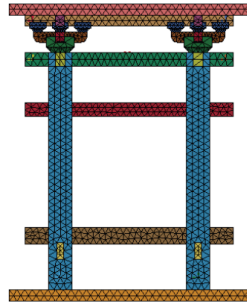
Staff

Professor Yuji MIYAMOTO (miyamoto@arch.eng.osaka-u.ac.jp)

Seismic performance of Wooden Structures

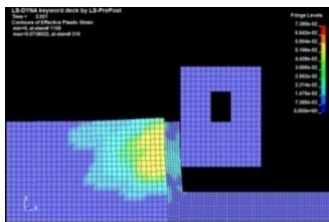


Dynamic test of traditional wooden structure

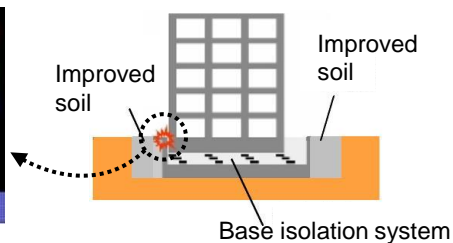


FEM model

Base Isolation System and Soil Improvement Method



Collision analysis by FEM



Base isolation system
Collision of building to retaining wall of base isolation system

Dynamic Nonlinear Soil-Structure Interaction



Soil-structure model
of dynamic centrifuge test

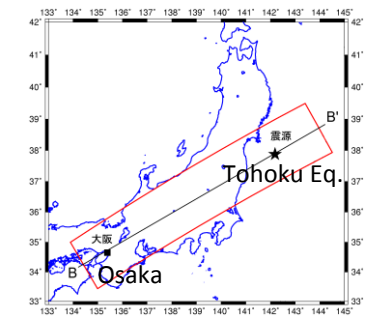


Full-size loading test
of steel pipe pile

Earthquake Ground Motion Simulation at Osaka



Large earthquake along Nankai trough



Earthquake ground motion simulation
of 2011 Tohoku earthquake