KOSHIHARA LAB.

Symbiosis of forest and city Timberize City as recycling resource

Department of Human and Social Systems

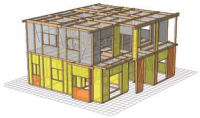
Wood Engineering
Department of Architecture, Graduate School of Engineering http://wood.iis.u-tokyo.ac.jp/

In this laboratory, we are investigating and researching construction methods mainly for wood. We are conducting research on a wide range of subjects, from traditional and modern wooden architecture registered as cultural properties to modern wooden architecture and even brick architecture. In addition, students are taking the initiative in various projects, such as producing things using wood without being bound by the framework of architecture.

Recent research examples

☑ Research on methods for predicting disaster damage to buildings (2024)

In order to mitigate disasters in Japan, which has been hit by a variety of disasters, research is being conducted on how to accumulate building information and on how to construct a system for estimating damage from disasters. In particular, using Kumamoto as a model area, we are focusing on what kind of building information is necessary to reproduce the damage caused by the 2016 earthquake and the 2023 flood in our analysis.



☑Wind Tunnel Experiment on the Five-Storied Pagoda of Kofuku-ji (2025)

Damage to five-storied pagodas from strong winds is often observed. A wind tunnel experiment was conducted to evaluate their wind resistance and the effects of airflow changes around them.

☑ Full-scale experiment of a timber frame structure using GIR and LSB joints (2023)

Non-residential buildings made of wood are gradually building,due to the need for environmentally friendly construction. Wooden joints are weaker than RC joints, so it is important to strengthen the joints. In this study, we verified the strength performance of joints in a full-size two-layer wood frame using GIR using adhesive and lag screw bolt (LSB) joints.