Seismic Response Analysis of Building Structures

1. **Instructor**: Prof. Kohju Ikago (Phone: 022-752-2116, e-mail: ikago@archi.tohoku.ac.jp)

2. **Quota**: 8

3. **Period**: Thursday, September 17 - Friday, September 18 (Intensive course)

4. **Appointed place and time**:
   - Room E402, International Research Institute of Disaster Science
   - 8:50 am on Thursday, September 17, 2020

5. **Outline of the course**

   Safety of a building structure subjected to permanent loads and external excitations induced by earthquakes and winds is validated by analyzing its behaviors using computers. Recent advances in analytical technologies in structural engineering such as the finite element method (FEM) and high-performance computers make it easy to conduct time-history response analyses of a large scale structure subjected to strong ground motion even if its design is complicated. In this intensive course, students will learn how structural design is performed and what should be considered in structural design in practice, conducting time-history response analysis of structures using STERA-3D and/or OpenSees.

![Example of STERA-3D operation screen.](Source: web page of Earthquake Disaster Engineering Research Lab., Toyohashi University of Technology)