

Division of Geosciences and Civil Engineering	Research field	Earthquake Engineering in Urban City	Lab. ID GC05
Laboratory web site			
Research subjects			
<p>1. Countermeasures of Lifeline Facilities against Natural Hazards  Damage analysis of buried pipelines in several natural disasters, countermeasures of pipeline against liquefaction, fault movement, landslide so on are focused on. The effects of long period and long duration earthquake motion on performance of lifeline system just after an earthquake is also studied.</p> <p>2. Estimation of Damage to Traditional Wooden Houses Induced by Earthquake  Earthquake force acting on the houses and seismic resistance of the houses should be estimated precisely in order to estimate the damage to traditional wooden houses. Magnitude of ground vibration at a target site can be estimated by using microtremor. Seismic resistance of houses is evaluated through 3D dynamic structural simulation.</p> <p>3. Evaluation of Seismic Safety and Retrofitting of Historical Masonry Structures  Seismic safety of historical masonry structures is evaluated by field investigation, shaking table tests and dynamic structural simulations. Retrofitting method is also proposed based on the results of evaluation of safety. Seismic safety of retaining wall is also studied by using a similar method.</p>			
Master/Doctor course: Education policy, curriculum, typical activity in the laboratory			
<p>We hold research meetings of our laboratory twice in a week. We hold joint seminars with earthquake engineering laboratories of Kyoto University and Kobe University twice in a year in order to exchange new research outcomes and discuss them. Students must attend academic conferences and present their research outcomes in several times in a year. Students of Doctor course must present their research outcomes at an international academic conference once at least.</p>			
Daily life in the laboratory, etc.			
<p>Personal working desk with a personal computer is available for every students. All students of undergraduate, Master, Doctor researchers share the laboratory rooms, and every free discussion are strongly encouraged. Many laboratory activities are organized like, welcome party for new comers, BBQ party, summer excursion, jogging, onsen (hot spa) and beer party, year end party, etc. A trademark phrase of our laboratory is "Study hard and play hard".</p>			
Message or comments by the laboratory faculty staffs			
<p>Research of our laboratory focuses on not only urban seismic problem but also several kinds of hazards, such as heavy snow, heavy rain, typhoon, volcano, etc. Research subject of each student is decided by discussion of faculty staffs and students. So students should explain their research plan at first.</p>			
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