

Division of Geosciences and Civil Engineering	Research field	Geotechnical and Geoenvironmental Engineering	Lab. ID GC04
Laboratory web site	https://sites.google.com/view/soilmechkanazawa		
Research subjects			
<p>Research topics are mainly divided into three categories; Applied mechanics, Geoenvironmental engineering, and Geotechnical engineering. As for the first topic, theoretical investigations and development numerical codes on the ultimate state of geo-structures and foundation structures are conducted, such as development of simplified methods to evaluate the ultimate capacity of underground / foundation structures, development of rigid-plastic finite element method. The second topic aims to evaluate current and future potentials of groundwater resources and shallow geothermal energy in each region of Japan, and to develop methodology for sustainable utilization through field and numerical approaches. As the third one, the focus is on unsaturated soil mechanics and its application to engineering problems. Element tests, model tests and numerical simulations are conducted to clarify the hydraulic/mechanical behavior of unsaturated soil and the mechanism of structure-soil interaction in unsaturated soil ground.</p>			
Master/Doctor course: Education policy, curriculum, typical activity in the laboratory			
<p>First graders in Master course should attend various classes to widen their views and knowledge on mechanical and civil engineering and to feed back their own research works. Second graders will spend many hours in Labo to conduct their research work. All the graduate students in Labo will attend general seminar once a week to deepen common background of geotechnical engineering. In addition, every research group will hold a meeting at least once a week to master skills and know-hows which are necessary for research work. Detailed discussions on specific issues in research work will be held as necessary.</p>			
Daily life in the laboratory, etc.			
<p>A desk and a computer are prepared for each student. Student room is also available at any time. Every student is recommended to be present at the core time (during the daytime) to promote exchanges of ideas and communications. We have several international students. This means English is another common language as a communication tool.</p>			
Message or comments by the laboratory faculty staffs			
<p>Every student has his / her own research topic. However, all the research works in Labo are related to each other in a broader sense. Please grow a wider view on geotechnical engineering and promote communications to stimulate each other. Exchange of ideas and teaching to other students are important to deepen the understanding. After graduation, many students will work at both private sector, such as general construction companies, consultant companies, railway companies, expressway companies, and public sector, such as central government agencies and local municipalities.</p>			
Laboratory mail address	Shun-ichi KOBAYASHI <koba@se.kanazawa-u.ac.jp> Yoshitaka SAKATA <y-sakata@se.kanazawa-u.ac.jp> Xi XIONG <xiong@se.kanazawa-u.ac.jp>		