

2024-2025 Graduation Research Topics in Waseda University

Komine (Geotechnical Engineering) Laboratory

Introduction: Waseda Geotechnical laboratory (W-GL), which is led by Prof./Dr. **Hideo Komine**, Lecturer/Dr. **Daichi Ito** and Assistant Prof./Dr. **Kunlin Ruan** with Dr. **Hirofumi Sakanakura** (NIES, Environmental Geotechnics Lecturer), is a laboratory focusing on finding **scientific solutions of geotechnical and environmental issues**. Our W-GL recently developed many new experimental apparatuses for students like you to help you to understand geotechnical engineering more **through excellent experimental works**. In particular, the issues to **engage with global challenges** are mainly focused in recent years' works.

More information is as following (<https://hkomine.w.waseda.jp/>) or the QR-code.

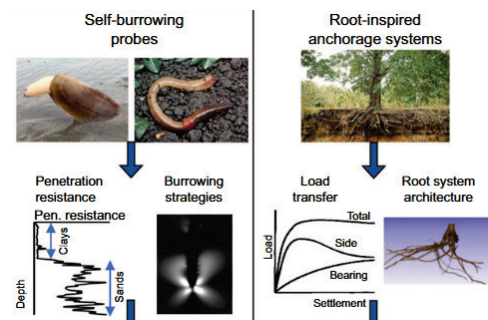
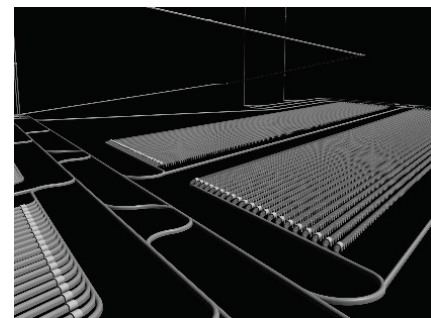
We welcome your visits to get to know our lab! Please contact us at “hkomine@waseda.jp” to set up a date and time for your visit!



W-GL students' research projects

Students can create their own one-of-a-kind graduation theses through discussions with W-GL faculty staffs, Prof./Dr. Komine, Dr. Ito, Dr. Ruan and Dr. Sakanakura (NIES). Of course, we will fully support you in the realization of your research ideas. We at W-GL have high research achievements in the following research areas.

- Geological disposal for High Level radioactive Waste (HLW)
- New technology used by electro-kinetic phenomena for cleaning soil contamination
- Bio-Geotechnical Engineering including new phyto-remediation technology
- Geotechnical evaluation techniques for coastal erosion and river levee vulnerability concerning global warming
- Energy Geotechnics concerning thermal phenomena of soil materials
- CO₂ Capture and Storage (CCS) for New Carbon Neutral Society
- New geotechnical technology against natural disaster such as torrential rainfall and/or earthquake
- Utilization of carbonated materials in geotechnical engineering
- Decommissioning of Fukushima Daiichi (1F) Nuclear power plants



How to grow up

W-GL always supports your research progress, and the entire laboratory discusses and monitors your development in laboratory seminars held once every 1.5 months.

Let's grow together!

This year we prepared some topics for international students related the above projects, while you can also propose your specific topic that you are strongly interested in. We are looking forward to working together with you for contribution to our beautiful planet.