

2023-2024 Graduation Research Topics in Waseda University

Komine (Geotechnical Engineering) Laboratory

Introduction: Waseda Geotechnical laboratory (W-GL), which is led by Prof. Hideo Komine, Associate Prof. H. Wang, Lecturer Daichi Ito, Assistant Prof. Kunlin Ruan and Research Assistant Bhargavi Chowdepalli, 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 (<http://www.f.waseda.jp/hkomine/>).

This year's research project for international students:

Students can choice the following research project or propose the new topic under the instruction from Prof. Komine, Dr. Wang, Dr. Ito, Dr. Ruan and Dr. Chowdepalli.

- CO₂ Capture and Storage (CCS) for New Carbon Neutral Society
- Utilization of carbonated materials in geotechnical engineering
- Geological disposal for High Level radioactive Waste (HLW)
- New geotechnical technology against natural disaster such as torrential rainfall and/or earthquake
- Energy Geotechnics concerning thermal phenomena of soil materials
- New technology used by electrokinetic phenomena for cleaning soil contamination
- Decommissioning of Fukushima Daiichi (1F) Nuclear power plants

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.