

## LABORATORY MEMBERS

### Professor

Dr. Wataru Takeuchi (Japan)

### Secretary

Ms. Aki Kawamoto (Japan)

### Assistant professor

Dr. Khin Myat Kyaw (Myanmar)

### Postdoctoral fellow

Dr. Trinh Xuan Truong (Vietnam)

Dr. Yasmin Bhattacharya (New Zealand)

### Academic support staff

Ms. Eiko Yoshimoto (Japan)

### Technical staff

Dr. Etsuko Nakazono (Japan)

### Students

Ms. Yu Yang (D3, CIVIL, PRC)

Mr. Muhammad Haidar (D3, CIVIL, Indonesia)

Mr. Shoki Shimada (D3, CIVIL, Japan)

Mr. Samitha Daranagama (D2, CIVIL, Sri Lanka)

Ms. Chihiro Naito (D2, AIS, Japan)

Mr. Arliandy Pratama Arbad (D1, CIVIL, Indonesia)

Ms. Yu Mochizuki (M2, CIVIL, Japan)

Mr. Tatsuya Kondo (M2, CIVIL, Japan)

Ms. Feifan Huang (M2, CIVIL, Japan)

Ms. Airi Watanabe (M1, CIVIL, Japan)

Mr. Didier Delgorge (B4, PEAK, Netherland)

Ms. Chaehyum Kim (B4, PEAK, Korea)

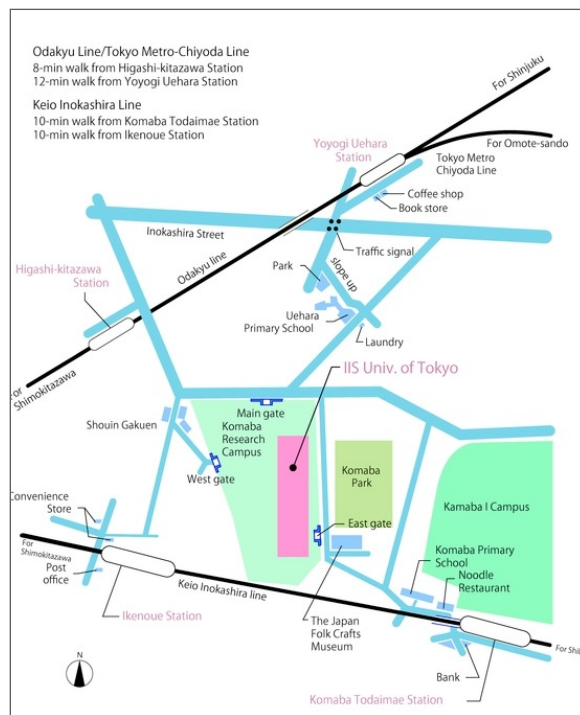
CIVIL: Graduate school of civil engineering

AIS: Graduate school of advanced interdisciplinary study

PEAK: Undergraduate program on environmental sciences

Last update: April 1, 2024

## DIRECTORY TO OUR LAB



FOR MORE DETAILED INFORMATION,  
PLEASE FREE TO CONTACT US  
WATARU TAKEUCHI LABORATORY

INSTITUTE OF INDUSTRIAL SCIENCE  
THE UNIVERSITY OF TOKYO

BW-604, 6-1, KOMABA 4-CHOME,  
MEGURO, TOKYO 153-8505 JAPAN

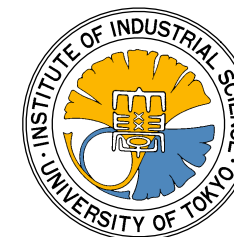
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# RSED

## REMOTE SENSING OF ENVIRONMENT AND DISASTER LABORATORY



INSTITUTE OF INDUSTRIAL SCIENCE  
THE UNIVERSITY OF TOKYO, JAPAN



OBSERVER FROM OUTER SPACE



#### LIFE IN KOMABA RESEARCH CAMPUS

*Our laboratory is located in the Komaba research campus surrounded by a quiet residential area with international lodges for students and researchers. It provides an easy access to downtown of Tokyo, government offices, sightseeing attractions, dining and drinks as well as a rich natural environment to enjoy four seasons, spring, summer, autumn and winter of Japan. This is one of the best place to study and do your research with a lot of scientific inspirations and comfortable life.*

## REMOTE SENSING OF ENVIRONMENT AND DISASTER (RSED)

### OUR MISSION

Our lab's mission is to develop the methodology to measure and evaluate the environmental changes of city, agricultural and forested area focused on human activities in global scale. Those researches are carried out under international collaboration and the derived systems are implemented and transferred to operational schemes.

### RESEARCH

Our laboratory's research is on global land cover and land use change, global carbon cycling, management and policy for terrestrial ecosystems using remote sensing and GIS technologies.

Our policy is to develop our own algorithm, implement on code as a package to build up a data processing system towards a solution oriented science and technology. We keep a balance between science and technology for a long term contribution to the society.

The recent research topics are shown as follows;

- Mapping of rice production and alternate dry and wet (AWD) to reduce carbon emissions
- Estimate CH<sub>4</sub> emission from natural permafrost wetland in climate change era
- Estimation of CO<sub>2</sub> budget from tropical peatlands with wild fires and droughts
- Detection and Calculation of Peatland Subsidence in Indonesia by using Interferometric Synthetic Aperture Radar (InSAR)
- Evaluating air pollution for better quality of life in Asia and its relation to socio-economic activities
- Static and dynamic monitoring of human activities in urban areas using VIIRS day-night band
- Assessment of photo voltaic (PV) power potential over Asia Pacific region with remote sensing

### OUR MISSION

Our policy on education is as follows;

- 1) Development of human resources who have both flexibility and strength as bamboo to survive our life.
- 2) Development of human resources who serve for international activities and social contribution with a long-term perspective and a bird's-eye view.
- 3) Development of human resources who can value the information obtained through the five senses, to capture the subtleties of emotion and intelligence.

Lab seminar is scheduled on a weekly-basis to provide students and staffs to present their research progress, hands-on training for a data processing and in-situ measurements to follow up a cutting edge technologies in our research field.

Those who would like to join our laboratory to study as a student is requested to pass the examination under the graduate school of civil engineering (CIVIL) or advanced interdisciplinary study (AIS) or international program on environmental sciences (GPES). Further details for admission and funding support are kindly referred to the followings

<https://www.civil.t.u-tokyo.ac.jp/>

<https://www.ais.rcast.u-tokyo.ac.jp/>

<https://gpes.c.u-tokyo.ac.jp/>

### PROJECTS AND OUTREACH

A lot of international projects are carried out in a laboratory financially supported by Cabinet office (CAO), Japan, Ministry of Education (MEXT), Japan Aerospace Exploration Agency (JAXA), Asian Development Bank (ADB) with a variety of international collaborators in China, Korea, Philippines, Vietnam, Cambodia, Laos, Thailand, Myanmar, Bangladesh, India, Sri Lanka, Malaysia, Indonesia, Singapore, Russia, USA, France etc.

