

## LABORATORY MEMBERS

### Professor

Dr. Wataru Takeuchi (Japan)

### Technical staff

Dr. Etsuko Nakazono (Japan)

### Secretary

Ms. Yoko Yoshimura (Japan)

### Students

Mr. Rahedul Islam Rahe (D3, CIVIL, Bangladesh)

Ms. Nuntikorn Kitratporn (D3, GPES, Thailand)

Mr. Trinh Xuan Truong (D2, GPES, Vietnam)

Ms. Yuhan Zheng (D2, CIVIL, PRC)

Mr. Takumi Fujiwara (D2, CIVIL, Japan)

Mr. Guanyu Yang (D1, GPES, PRC)

Ms. Yaru (M2, GPES, PRC)

Mr. Deepanshu Agarwal (M2, CIVIL, India)

Ms. Lilangi Wijesinghe (M2, CIVIL, Sri Lanka)

Ms. Miwa Aoyama (M2, CIVIL, Japan)

Mr. Daiki Shimizu (M2, CIVIL, Japan)

Mr. Dheeraj Joshi (M1, CIVIL, India)

Mr. Yiwei Huang (M1, CIVIL, PRC)

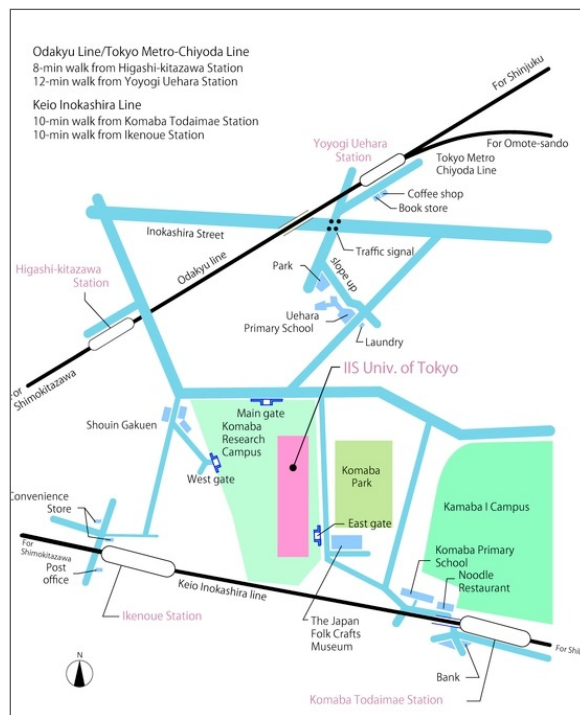
Mr. Shoki Shimada (M1, CIVIL, Japan)

Ms. Michiko Yamasaki (B4, PEAK, India)

CIVIL: Graduate school of civil engineering  
GPES: Graduate Program on Environmental Sciences  
PEAK: Program in English At Komaba on environmental sciences

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## DIRECTORY TO OUR LAB



FOR MORE DETAILED INFORMATION,  
PLEASE FREE TO CONTACT US

WATARU TAKEUCHI LABORATORY

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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 voltatic (PV) power potential over Asia Pacific region with remote sensing

### EDUCATION

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, to invite professors and researchers from outside for an intensive lecture course, 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 or international program on environmental sciences (GPES). Further details for admission and funding support are kindly contacted to foreign student office [fso@civil.t.u-tokyo.ac.jp](mailto:fso@civil.t.u-tokyo.ac.jp) or <http://peak.c.u-tokyo.ac.jp/>

### PROJECTS AND OUTREACH

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

