



Regional Environment and Sustainable Development (RES D) program

Topic: Environmental Protection and Sustainable
Term: 2026/7/3 ~ 2026/7/12

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D1 student

What is RESD Program?

- The RESD is an international certificate program designed to allow PhD students to pursue advanced training in environmental science, engineering and management while simultaneously developing workplace skills at international institution and having deep field study experience for the future world.
- This year, all 10 participants (from 6 universities) visited 3 universities together to attend lectures.

Participants

3 from Kanazawa Univ.



2 from Tsinghua Univ.



2 from Tongji Univ.



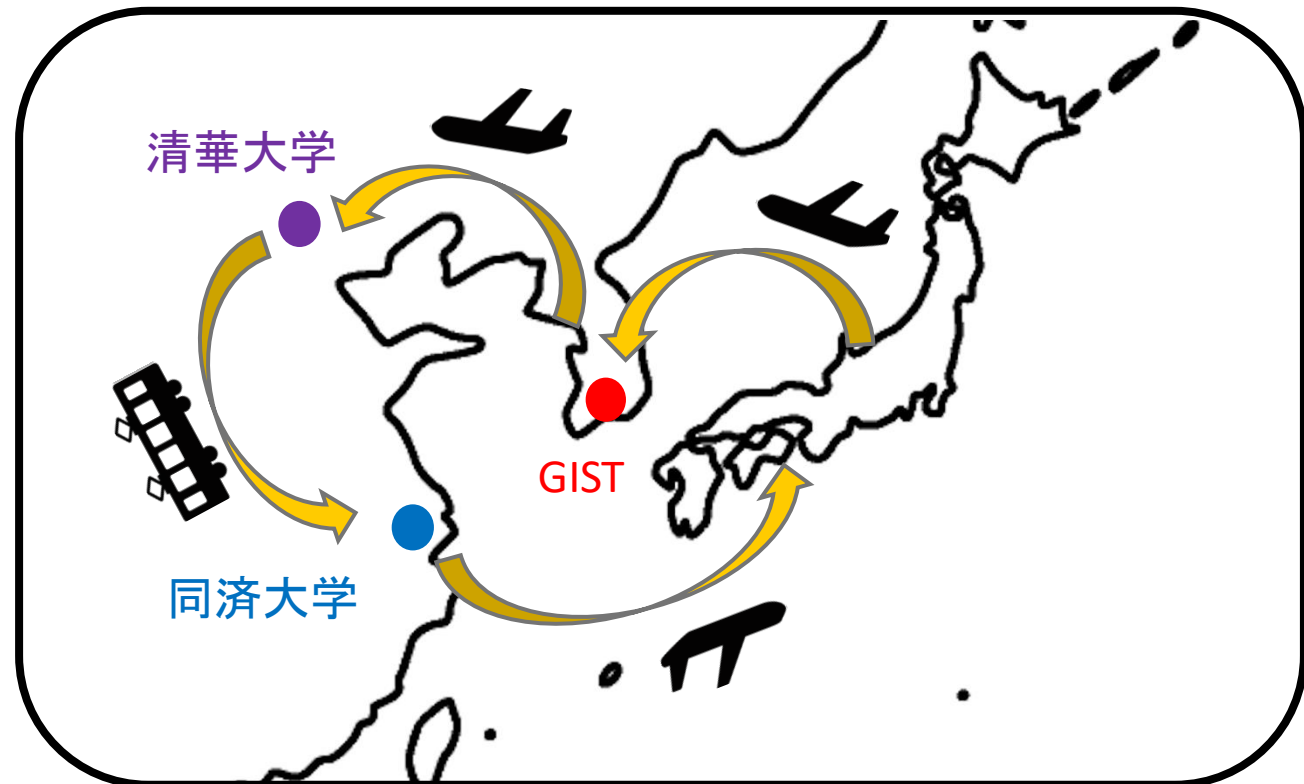
1 from GIST



1 from KAIST



1 from POSTEC



TOPICS

The topic of the RESD program changes every year

Year	Topic
2014	Resource Recovery of Urban Wastes
2015	Water Shortage: Challenges and Solutions - Reclamation, Desalination and Transportation
2016	Biotechnologies for water treatment
2017	Air pollution control
2018	Green energy from waste
2019	Advanced materials for environmental applications
2023	Carbon neutrality and sustainable development
2024	Sustainable Urban Water System
2025	Environmental Protection & Sustainable Development
2026	Carbon Neutrality and Environmental Protection

Univ. 1: GIST @光州(7/3~7/6)



■ 7/3 : Travel day

- Moved from Kanazawa to Gwangju (光州).
- Stayed at Univ. dormitory



■ 7/4 : Lecture & Lab. tour

- 2 Lecture
 - ◆ Electrochemical Cell Technologies for CO₂ Conversion and Sustainable Hydrogen Production
 - ◆ AI Weather & Climate model: Potential and Limitation
- Lab. tour
 - ◆ We visited about 20 labs.



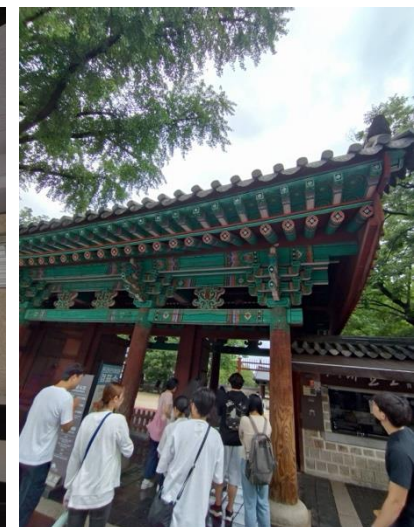
광주과학기술원
Gwangju Institute of Science and Technology

■ 7/5 : Excursion @ Jeonju

- Visited Joseon Dynasty(朝鮮王朝) Heritage Sites

■ 7/6 : Travel day

- Moved from Gwangju to Beijing (北京).



Univ. 2: Tsinghua Univ. @北京 (7/6~7/9)

■ 7/6 : Travel day

- Moved from Gwangju to Beijing (北京).
- Stayed at Xijiao Hotel Beijing (北京西郊賓館)

■ 7/7 : Lecture

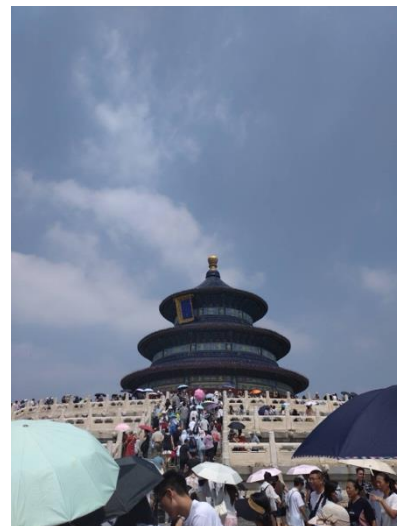
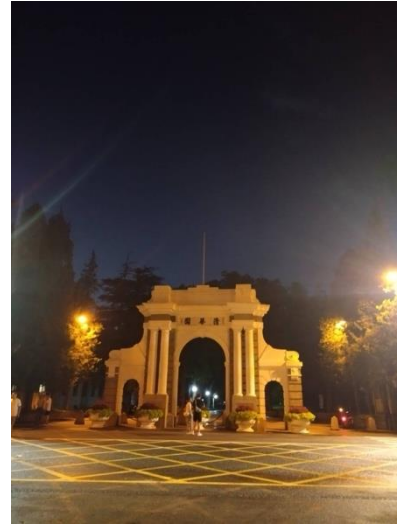
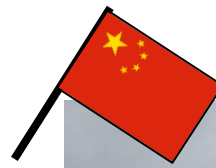
- 4 Lecture
 - ◆ Zero-Emission and Low-Carbon Transportation Technologies
 - ◆ Sponge city and Urban Green-Grey-Blue infrastructure system
 - ◆ Soil Contamination by Heavy Metals & Remediation
 - ◆ How are Green Technologies Turned into Commercial Successes? —Key Strategies and Approaches at RIET

■ 7/8 : Excursion @ Beijing

- Visited “Temple of heaven” and Car factory

■ 7/9 : Travel day

- Moved from Beijing to Shanghai (上海).



Univ. 3: Tongji Univ. @上海 (7/9~7/12)

■ 7/9 : Travel day

- Moved from Beijing to Shanghai (上海).
- Stayed at Shanghai Red Hotel (上海灣紅酒店)

■ 7/10 : Lecture

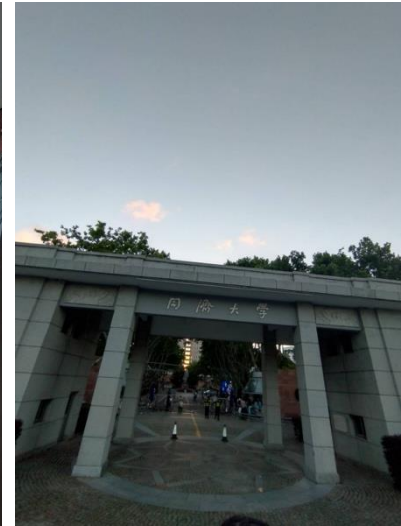
- 3 Lecture
 - ◆ Efficient Electrochemical Energy Conversion for A Renewable Future
 - ◆ Water-Energy-Carbon Nexus in Urban Water System
 - ◆ Phosphorus Removal and Recovery from Wastewater

■ 7/11 : Excursion @ Shanghai

- Visited a company providing IT solutions for sustainability.
- Afternoon session was canceled due to the typhoon 🌪️

■ 7/12 : Travel day

- Back to Japan.



同濟大學
TONGJI UNIVERSITY



Conclusion, Comments

■ Lectures

- Gained a wide range of knowledge across various fields.
- The Sponge City lecture was fascinating as it aligns with my research on water resource optimization.
- The weather forecasting lecture was engaging due to my background in machine learning.

■ Excursion

- Visited various places in Korea and China, experienced differences compared with Japan. Shanghai had spectacular night views.
- Enjoyed a wide variety of delicious local food.

■ Interacting with members

- Interacted a lot with each other. Spending 10 days together allowed us to communicate a lot, enjoying both academic discussions and casual chats.
- We still keep in touch.



Appendix – Pictures with group members-



Thank you very much for giving me the opportunity to participate in this program.