

# KENGURO

## Quarterly Newsletter vol.24

### Headlines

#### Featured

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Held in Person for the First Time  
in 3 years

Student Exchange with South  
Korea's Hanbat National University!



### Featured

## Sakura Science Exchange Program Held in Person for the First Time in 3 years!!

The Faculty of Science and Engineering, Iwate University, has been hosting Asian students with the support of the Japan Science and Technology Agency (JST) as part of the Japan-Asia Youth Science Exchange Program (Sakura Science Exchange Plan) for about 10 years. The program, which had recently only been conducted remotely due to the Covid-19 pandemic, was held in person for the first time in 3 years. From Sunday, July 9th to Sunday, July 16th, 2023, 7 university and graduate students, along with 2 faculty members, were invited from Mongolia, Taiwan, and Thailand. Research activities took place in the laboratory of the Faculty of Science and Engineering at our university, under the theme of "Experiencing digital content supported by advanced media technologies and design!"

## Experiencing Cutting-Edge Design Research

An opening session was held in the morning of the first day of the program. After a welcome speech by Prof. Yashiro, the Dean of our Faculty, the participants watched an introduction video about Iwate University, and graduate students (two Ph.D. students) from our university's Design and Media Engineering program gave research presentations. Additionally, the invited students introduced the culture, cuisine, and daily life of their respective countries under the theme "My Country, My University." In the afternoon, the participants were divided into two groups led by Prof. Takamitsu Tanaka and Associate Prof. Jiang Peng from the Design and Media Engineering course, as well as Prof. Katsutsugu Matsuyama, engaging in activities at the respective research laboratories.

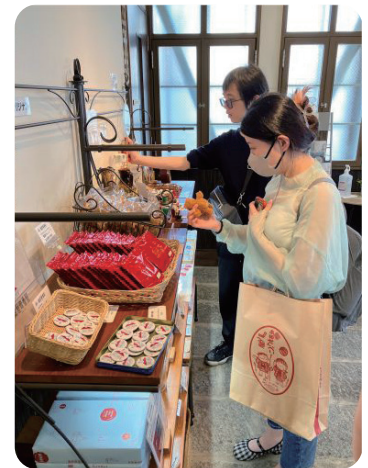
From day 2 onward, the participants focused on laboratory activities for 3 days. Prof. Tanaka's group conducted discussions based on the characteristics of specialty product packaging in Mongolia, Taiwan, and Thailand, while Prof. Matsuyama's group engaged in discussions about application ideas focusing on cultural diversity. To promote further interaction among faculty members, a reception was held, bringing together 4 instructors from our university who are involved in the Sakura Science Exchange Project, along with the 2 invited instructors.

The 5th day featured presentations on the findings from each laboratory, and on the following day, the students visited the "Art & Technology Tohoku 2023" event held at our university and organized by the Society for Art and Science - Tohoku Section, providing an opportunity to experience various works and digital content created using cutting-edge technology. The 6-day program at our university undoubtedly offered full immersion into the world of design.



(Left) The fieldwork of Prof. Matsuyama's group. Based on the information they gathered through research activities in the vicinity of the university, as well as in commercial facilities and shopping districts in the city, they delved into needs and discussed the applications to address those needs. They also discussed user interface design and database design with the users in mind, in pursuit of realizing their ideas.

(Right) The fieldwork of Prof. Tanaka and assistant Prof. Peng's group. They conducted in-depth surveys of various traditional crafts and specialty product packaging from Iwate Prefecture and various regions in facilities such as the Iwate Museum of Art, Kawatoku in the center of Morioka, LaLa Iwate, and local cafes and shops. They exchanged opinions from a design perspective on the features of the packaging and discussed the characteristics of Japanese specialty product packaging.



(Above) Participants visiting Art & Technology Tohoku 2023



(Above) All participants of the Sakura Science Exchange Program

## Student Exchange with South Korea's Hanbat National University!!

From August 27th to 31st, 2023, 10 undergraduate/graduate students and 5 faculty members from Hanbat National University (HBNU) visited our school through the exchange program, and from September 17th to 21st, 8 of our undergraduate/graduate students and 5 faculty members visited HBNU to further deepen the relationship. Through various events such as joint PBL (problem-based learning) activities by mixed teams of students from our school and South Korea's HBNU, laboratory tours, visits to factories, cultural facilities, and cultural experiences, students from both universities were able to participate in a fulfilling exchange.

### Exchange at Iwate University Begins!

One of the main objectives of this exchange program is to cultivate a broad perspective by learning about the differences and commonalities in approaches and ideas regarding creativity and production between Japan and South Korea through group work in joint PBL. Our school's students proposed the following PBL goals: ① "Plantification of buildings," ② "Establishment of a production cycle system for Biodegradable plastics," ③ "Proposal of eco-materials using carbon recycling technology and its use," and ④ "Recycling of new fashion waste."

The first day of the exchange began with a short lecture by the faculty members of both universities and self-introductions in English by students from both universities, followed by the introduction of PBL goals by our students. Immediately afterward, participants were divided into four teams and commenced PBL activities. Laughter could be heard during the discussions, and it was evident that the students quickly bonded. On the second day, joint PBL activities continued in the morning, followed by a mid-term presentation. Each team presented their ideas, which incorporated contributions from students of both countries, and it was decided that these ideas would be further refined in preparation for the program at HBNU in September. After a closing ceremony in which participants were awarded certificates of completion of our university's program, HBNU students were divided into 5 groups representing the fields of chemistry, materials, electronics engineering, social environment, and design information, and visited our laboratories.

On the final day of the program, participants took a chartered bus to the Oshu and Hiraizumi area to learn more about Iwate. At the Oshu City Iron Casting Technology Exchange Center, they acquired fundamental knowledge about iron casting and product testing methods for quality improvement, and observed the actual production process of Nanbu ironware at the OIGEN Foundry. In the afternoon, they visited Chuson-ji Temple and Takkoku Seiko-ji Temple, experiencing the culture of Hiraizumi. Afterwards, HBNU students and faculty members enjoyed hot springs in Tsunagi Onsen before heading back.



A glimpse of the factory tour at OIGEN Foundry (photo on the right). Everyone seemed impressed by the powerful production site, with loud machinery noises and the process of pouring molten iron into molds.



(Left) The joint PBL activities. They engaged in heated discussions from the very first day of their first meeting.



(Right) The joint PBL mid-term presentation. The team that worked on goal ② won a gold award at the presentation event in South Korea.



(Left) Participants enjoyed wanko soba at Azumaya for dinner on the first day of the exchange. There was quite an impressive pile of bowls.



(Above) A group photo of everyone in front of Takkoku no Iwaya Bishamondo.

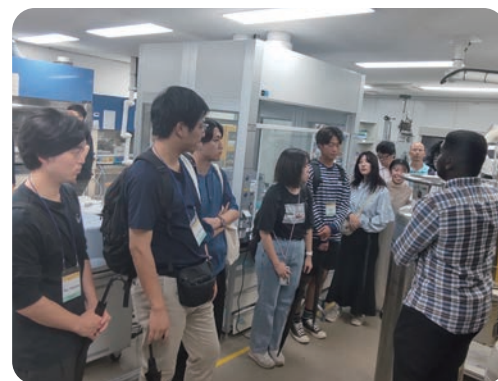
## Long-awaited visit to Hanbat National University

Two weeks after the program at Iwate University ended, our students visited Hanbat National University (HBNU) in Daejeon. The morning of the first day featured a short lecture by 4 instructors from both universities, and in the afternoon, joint PBL activities were conducted along with progress reports. During the progress reports, participants discussed how they had addressed and considered the questions and comments received during the mid-term presentations in August. On the second morning, they continued with joint PBL activities, and in the afternoon, each team presented their results in a 20-minute presentation. Professors evaluated the presentations, and each team received certificates and prizes.

On the third morning, they toured the laboratories of HBNU, and in the afternoon, they visited the Electronics and Telecommunications Research Institute, where they experienced cutting-edge electronic communication technologies such as CG imaging, autonomous vehicles, holography, AI image creation, and more. On the fourth day, the day before returning home, they enjoyed their time in South Korea and went to Seoul, where they had lunch in Insa-dong and visited Changdeokgung Palace.



(Left) The PBL group work at HNBU.



(Right) The visit to Professor Jae-Hyun Lee's Organic EL Display Research Laboratory. Everyone listened attentively to the explanations.



(Above) In traditional Korean attire in front of the Donhwamun Gate of Changdeokgung Palace.



(Left) A glimpse of the visit to the Electronics and Telecommunications Research Institute. Participants took a commemorative photo in a self-driving car.

### Student Comments

#### Yuto Komuro, Graduate Course in Regional and Community Design M1



I learned three significant things through this program. First, the differences in research environments; second, the necessity of discussions considering cultural differences; and third, the importance of the willingness to communicate across language barriers. I discovered that even with some errors in word order or grammar, it's possible to communicate effectively through the right intention and creativity. I felt that my previous hesitations toward engaging with foreign cultures have diminished.

#### Kim Jisoo, Industrial Design B2



This activity gave me a lot both visually and human relationships. Although it is an exchange-oriented activity, I was able to see excellent materials related or not my major, and I am sure that I grew further based on this. Having working with people from other country and majors and greatly improve my future work.

#### Ai Miyagi, Chemistry Course in Faculty of Science and Engineering B4



At first, I was worried about whether I would be able to communicate effectively in English, but I feel that I was able to build deeper connections than I had imagined. This was my first trip abroad, and the experience of actually being in a foreign country made me realize that the local food culture and the atmosphere of the city were much more vivid than what I had seen on TV or read in books. I had a very fulfilling time.

#### Heo Geun, Materials Science and Engineering B4



All the communications with Japanese students were really special and precious experiences. Learning and sharing each other's language and culture, all of us developed rapidly. At first, almost everyone communicated in English, but on the last day, everyone learned each other's language. Participating in this program was one of the greatest opportunity in my whole university life.

### Message from the Editor

This was my first time participating in the program, and I was deeply impressed to see the students' attitude to communicate and understand each other despite the language barrier during their exchange with the international students. I have once again realized the importance of understanding and respecting others as the first step in communication, and I, too, was able to return to the basics. I believe that this experience will be a valuable asset in the students' future lives.

Editor's Office:

Special Committee on Globalization  
of Education and Research

Email: [kenguro@iwate-u.ac.jp](mailto:kenguro@iwate-u.ac.jp)

TEL: 019-621-6405

<http://www.kenguro.iwate-u.ac.jp/>



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