



# **REPORT ON PARTICIPATION IN STUDY TOUR GRANT PROGRAM 2024**

**Japan Society of Civil Engineers**

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**2024 STG Participant (Mongolia)**

**Sendai, Miyagi, Japan**

**September 2024**

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## 1. INTRODUCTION

### 1.1 About JSCE

The Japan Society of Civil Engineers (JSCE) is a prestigious organization that aims to advance the field of civil engineering in Japan and worldwide. JSCE promotes knowledge sharing, research, and development within the engineering community, contributing to the construction and maintenance of public infrastructure.

### 1.2 About Study Tour Grant (STG)

The STG was established in 1992, supported by the International Scientific Exchange Fund. It is a unique program designed for young civil engineers to learn about Japanese civil engineering technology and projects by staying in Japan for approximately one week.

During their stay, STG participants visit project sites and research institutes, meet leading civil engineering professionals and academics, and share their projects with other students. The STG program offers participants a one-of-a-kind opportunity not only to observe technological innovations but also to experience them in the environment where they are achieved.

**Current STG participating societies:** Fed. MES (Myanmar), IEB (Bangladesh), MACE (Mongolia), PICE (the Philippines), Turkey Section (Turkey), and VFCEA (Vietnam).

The new STG program will be designed through discussions with ambassadors to address the following “challenges and issues” and to promote multi-interactive exchanges among participants from different countries and societies.

### 1.3 About STG 2024

STG 2024 was held in September, marking the first time the program took place after the COVID-19 pandemic. This year, five participants attended the program, each bringing unique experiences and perspectives from different countries:

- **Mr. Zin Moe Htut** – Fed. MES, Developed Professional Engineering Consultants, Co. Ltd. (Myanmar)
- **Mr. Satharat Pianfuengfoo** – EIT, Ph.D. Student, Dept. of Civil Engineering, Faculty of Engineering, King Mongkut’s University of Technology North Bangkok (Thailand)

- **Mr. Hachnayen Ahmed** – IEB, Master Student, Founder / CEO of CADD COARE Training & IT Services, Bangladesh University of Engineering & Technology - Japan Inst. of Disaster Prevention & Urban Safety (Bangladesh)
- **Mr. John Mark Guimba** – PICE, Public Officer / Engineer IV, Department of Public Works and Highways (DPWH) (Philippines)
- **Ms. Urantogos Agvaanluvsan** – MACE, Master Student, Mongolian University of Science & Technology (Mongolia)

The program offered participants an opportunity to visit key engineering sites in Japan, attend seminars on cutting-edge technologies, and learn from leading experts in the field. It provided valuable insights into Japan's civil engineering practices, especially in areas of infrastructure resilience and sustainable development.

## 2. STG 2024 ACTIVITIES

### 2.1 Itinerary

The following itinerary was provided by the Japan Society of Civil Engineers (JSCE) for the participants of the Study Tour Grant (STG) 2024. The tour lasted for 6 days and 5 nights, from September 1, 2024, to September 6, 2024.

Table 1. JSCE Study Tour Grant 2024 Itinerary

#### 2024 Study Tour Grant Agenda

2024. Sept. 1st (Sun) — Sept. 7 (Sat)

	Date	Time	Event
1	9/1, Sun	—	Arrive at Narita Airport • 13:40 from Mongolia • 15:45 from Thailand • 15:45 from Bangladesh • 20:00 from the Philippines *SOUBUN, COM (Travel Agent) will meet you at airport Go to Hotel Intergate Tokyo Kyobashi and check in the hotel
2	9/2, Mon	8:10~	Arrive at Narita Airport and Go to Hotel Intergate Tokyo Kyobashi • 8:10 from Myanmar
		13:30	Meet at the front desk of Hotel Intergate Kyobashi. Move to the Marunouchi South Exit of Tokyo Station.
		14:00~18:00	Half-day Tokyo tour by Bus -( <a href="https://www.hatobus.com/v01/en/course/2024/whole-year/AE302#sec1">https://www.hatobus.com/v01/en/course/2024/whole-year/AE302#sec1</a> ) • Visit Imperial Palace Plaza (40min), Asakusa Kannon Temple & Nakamise Shopping Street(60min), and Tokyo Tower main observatory(40min.) →Canceled due to the typhoon. →Free time
3	9/3, Tue	8:40~	Check out Hotel Intergate Tokyo Kyobashi and go to JSCE
		9:30~11:00	Check out Intergate Tokyo Kyobashi STG Orientation at JSCE ( <a href="https://maps.app.goo.gl/BNAGBFkrLizPi9HdA">https://maps.app.goo.gl/BNAGBFkrLizPi9HdA</a> )
		11:00~12:00	Lunch at JSCE
		12:10~	Go to the Kajima Technical Research Institute Nishichofu Comple by Bus
		13:30~15:30	Visit the Kajima Technical Research Institute Nishichofu Comple
		15:30~	Go to Tokyo Station by Bus
		17:28~19:37	Take the Shinkansen (Yamabiko 151) to Sendai from Tokyo
		20:00~	Check in Sendai International Hotel

4	9/4, Wed	8:30	Leave from Sendai International Hotel and go to Sendai International Center
		10:00~12:00	Participate in IAC Discussion Theme: Junctions, Paths, and Future ~Paradigm Shift~ at Sakura, Sendai International Center
		12:00~12:20	Meet at the entrance of the Conference Building 1F, Sendai International Center and board the technical tour bus.
		13:00~14:00	Lunch at Kirin Brewery Sendai
		14:10~16:10	Visit Sendai City Minami Gamo Wastewater Treatment Plant ( <a href="https://www.city.sendai.jp/soshikikanri/shise/gaiyo/soshiki/141/documents/06pamphlet.pdf">https://www.city.sendai.jp/soshikikanri/shise/gaiyo/soshiki/141/documents/06pamphlet.pdf</a> )
		16:20~17:00	Visit Ruins of the Great East Japan Earthquake: Sendai Arahama Residential Foundation ( <a href="https://arahama.sendai311-memorial.jp/residential.foundation/index.html">https://arahama.sendai311-memorial.jp/residential.foundation/index.html</a> )
		17:10~17:40	Go back to Sendai International Hotel
		18:30~20:00	Attend 2024 JSCE Annual Meeting Welcom Reception at HOTEL METROPOLITAN SENDAI
5	9/5, Thu	7:50~	Meet at the hotel entrance. Move to Tohoku University
		9:00~17:40	Participate in the 26th International Summer Symposium, JSCE Annual Meeting at Tohoku University ( <a href="https://pub.conf.atlas.jp/en/event/jsce2024/sessions/program/1LHTDX">https://pub.conf.atlas.jp/en/event/jsce2024/sessions/program/1LHTDX</a> )
		※14:00~16:00	STG Meeting at mozart klees coffee ( <a href="https://maps.app.goo.gl/2yJ1jG4FUUXRrTTaA">https://maps.app.goo.gl/2yJ1jG4FUUXRrTTaA</a> ) *STG Ambassadors are invited to attend.
		18:00~19:00	Join the IAC Networking Reception at Kitchen Terrace Krull ( <a href="https://maps.app.goo.gl/8yexk7xPpSPUrREw9">https://maps.app.goo.gl/8yexk7xPpSPUrREw9</a> )
6	9/6, Fri	9:00~11:16	Take the Shinkansen (Yamabiko 210) to Tokyo
		-	Move to Narita Airport. Departure from Narita Airport •14:15 to the Philippines •14:40 to Mongolia •17:25 to Bangladesh •17:25 to Thailand
7	9/7, Sat	7:30~	Check out the hotel and go to Tokyo International Airport by Taxi Departure from Tokyo International Airport •10:35 to Myanmar

## 2.2 Day 1 (September 1<sup>st</sup> 2024)

I arrived in Japan at Narita International Airport on September 1st, 2024. My tentative flight number was OM501, and I landed at 13:40 PM. After arriving, I traveled to Hotel Intergate Tokyo Kyobashi, where I stayed for the first two nights of the program.

## 2.3 Day 2 (September 2<sup>nd</sup> 2024)

On September 2nd, we were scheduled for a sightseeing tour around Tokyo. Unfortunately, due to a typhoon, the tour was canceled, and we had free time for the rest of the day. I stayed at Hotel Intergate Tokyo Kyobashi.

## 2.4 Day 3 (September 3<sup>rd</sup> 2024)

On the morning of September 3<sup>rd</sup>, we checked out of Hotel Intergate Tokyo Kyobashi and went to JSCE Headquarters to attend the STG orientation.



Fig.1. Group Photo with STG Participants and STG Ambassadors



Fig.2. STG Orientation at JSCE Headquarters

Afterward, we had the opportunity to visit the impressive Kajima Technical Research Institute (KaTRI), a large and renowned facility dedicated to advancing research in various fields, including earthquake engineering and concrete technology. During our visit, we explored numerous research sections and learned about innovative approaches to tackling challenges in these areas. One of the most unforgettable experiences was participating in a simulated earthquake test, where we could feel firsthand the effects of seismic activity. This immersive experience provided invaluable insights into earthquake resilience and reinforced the importance of our studies in structural engineering. Unfortunately, due to the institute's strict photo policy, I was unable to capture any images during our visit. Nevertheless, this experience was undoubtedly one of the highlights of STG 2024, leaving a lasting impression on all participants. In the late afternoon, I took the Shinkansen from Tokyo to Sendai and checked into Sendai International Hotel for the rest of the program.



## 2.5 Day 4 (September 4<sup>th</sup> 2024)

The day commenced with our attendance at the 2024 JSCE Annual Meeting, held at Tohoku University and the Sendai International Center. The theme for this year's meeting was "自然と暮らしの奥深き風景をつくる土木へ" (Civil engineering that creates a profound landscape of nature and life). One of the standout features of the meeting was the availability of synchronous translation, which proved invaluable for foreign participants and ambassadors who were not fluent in Japanese.

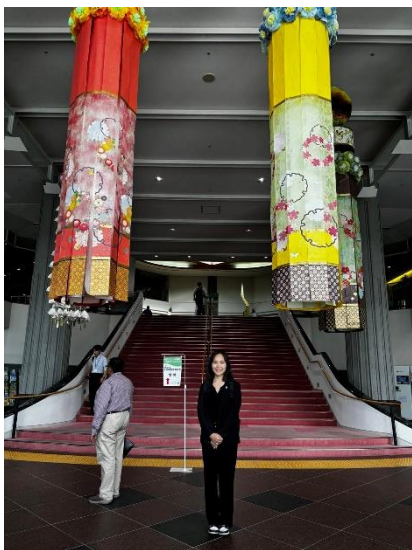


Fig.3. At Sendai International Center before 2024 JSCE Annual Meeting



Fig.4. During 2024 JSCE Annual Meeting



Fig.5. Participants from Mongolia at the 2024 JSCE Annual Meeting



Fig.6. Lunch at Kirin Brewery Sendai with Foreign Participants of the 2024 JSCE Annual Meeting.



In the afternoon, we visited the Sendai City Minami Gamo Wastewater Treatment Plant. This facility was impressive, showcasing the remarkable efforts made in the aftermath of the earthquake and tsunami. It was evident that the design and reconstruction of the plant took into account the possibility of future seismic events, ensuring enhanced resilience against potential disasters. Notably, we observed a building left untouched from the tsunami, which served as a poignant reminder of the disaster's devastating impact.



Fig.7. The 3rd pumping building with the wall curved by the tsunami



Fig.8. Great East Japan Earthquake Memorial Statue



Fig.9. Ruins of the Great East Japan Earthquake: Residential foundation, Arahama area

Following this, we embarked on a field trip to explore the Ruins of the Great East Japan Earthquake in Sendai, Miyagi. These visits provided profound insights into the effects of the earthquake and Japan's ongoing disaster prevention initiatives.

That evening, we returned to the Sendai International Hotel to rest before attending the 2024 JSCE Annual Meeting Welcome Reception at HOTEL METROPOLITAN SENDAI. During the reception, we enjoyed traditional Japanese dances and songs, further enriching our cultural experience in Japan.

## 2.6 Day 5 (September 5<sup>th</sup> 2024)

We gathered early at the hotel entrance and traveled to Tohoku University by train. This day was particularly significant for all STG participants, as it was our turn to deliver presentations. My

presentation was titled "Retrofit Method for Repair of Corroded Bolted Connection" and I presented in Lecture Hall 1 during Structural Engineering Session 2, scheduled from 10:40 AM to 12:00 PM.

As I watched my fellow participants present their research, I felt a profound sense of accomplishment and pride in our collective efforts. It was inspiring to witness the diverse and advanced work being done by engineers from around the world. Japan, renowned for its technological advancements, exemplifies a culture that actively listens to researchers and specialists. I believe this commitment to collaboration and a strong work ethic sets Japan apart and contributes to its success in the field of engineering.

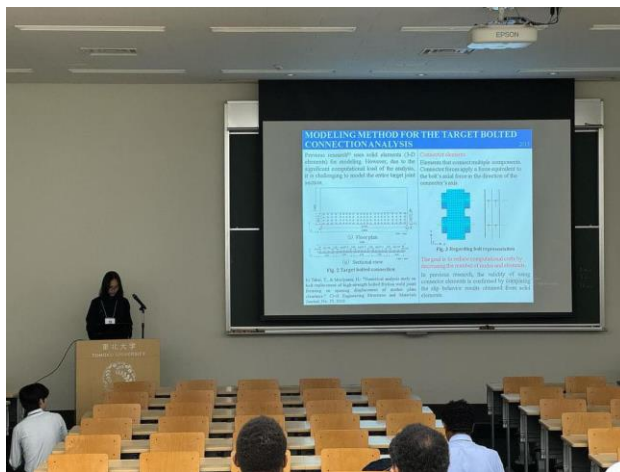


Fig.10. During My Presentation at the 2024 JSCE Annual Meeting



Fig.11. After My Presentation at the 2024 JSCE Annual Meeting



Fig.12. Having Lunch with STG Participants at Tohoku University Dining Hall After My Presentation



Fig.13. IAC Networking Reception at Kitchen Terrace Krull



After the presentations, we attended the IAC Networking Reception at Kitchen Terrace Krull. The reception was well-attended by many foreign participants and ambassadors, creating a vibrant atmosphere for networking and exchanging ideas. I thoroughly enjoyed the event, as it provided an excellent opportunity to connect with peers and industry professionals.

Following the reception, we returned to the hotel around 8:00 PM. After resting for about an hour, the STG participants decided to explore some night shopping, as it was our last night in Japan. We took advantage of the opportunity to buy souvenirs and enjoy the local shops. After a fulfilling evening of shopping, we returned to our hotel to relax for the rest of the day.

### **2.7 Day 6 (September 6<sup>th</sup> 2024)**

On the morning of Day 6, I enjoyed breakfast at the hotel cafeteria before boarding the Shinkansen to Tokyo. Upon arriving at Tokyo Station, Mr. John Mark Guimba, Mr. Satharat Pianfuengfoo, and I made our way to Narita International Airport. After checking in, I boarded my flight, OM 502, with Mongolian Airlines, which was scheduled to depart from Terminal 2 at 14:40 PM. After a smooth flight, I finally landed in Mongolia around 7:20 PM local time.



Fig.14. Taking the Shinkansen to Tokyo Station

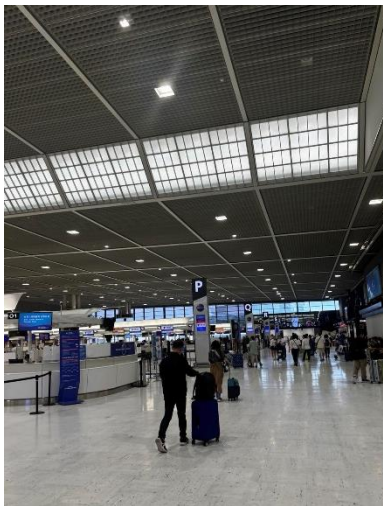


Fig.15. Ready to Go Home at Narita International Airport



Fig.16. Landed in Ulaanbaatar Right on Time

### **3. GRATITUDE AND ACCOMPLISHMENT**

I would like to express my sincere gratitude to the Japan Society of Civil Engineers (JSCE) for providing me with the opportunity to participate in the Study Tour Grant (STG) 2024. This experience has significantly contributed to my professional growth and understanding of civil engineering practices.

I extend my heartfelt thanks to MACE for granting me the chance to attend STG 2024. Their support has been invaluable in facilitating my participation in this enriching program.

I am particularly grateful to the organizers, including Ms. Yuki, Mr. Arai, Mr. Tasaka and other JSCE members and staffs for their unwavering support and guidance throughout the tour. Their efforts in coordinating the itinerary and facilitating interactions with industry professionals were instrumental in making this tour a success.

Additionally, I would like to thank my co-writers for their collaboration on my research. Their insights and contributions have greatly enhanced the quality of my work, and I appreciate their dedication and support.

The STG 2024 allowed me to engage with esteemed professionals and fellow participants from various countries, enriching my perspective on global engineering challenges and solutions. I am thankful to all the participants for sharing their insights and experiences, which greatly enhanced my learning.

Overall, this experience has not only broadened my technical knowledge but has also fostered lasting relationships with fellow engineers. I look forward to applying the knowledge gained from this tour to my future endeavors in the field of civil engineering.

I sincerely appreciate everything.