Issue
No. 27
2024

Saitama University

Newsletter

International Graduate Program on Civil & Environmental Engineering

Japan's changing higher education landscape: Towards internationalization

Last year, Japan set an ambitious goal to transform its higher education landscape: attracting 400,000 foreign students and sending 500,000 Japanese students abroad annually by 2033. This initiative was announced by Prime Minister Fumio Kishida on March 17, 2023, during the fifth meeting of the Council for the Creation of Future Education. The aim is to foster global education exchanges and address domestic labor shortages. This marks a significant shift from Japan's previous plan to attract 300,000 foreign students, a target reached in 2019 with 310,000 students. However, the COVID-19 pandemic caused a decline, reducing the number to approximately 230,000 by 2022. The new plan aims to surpass previous benchmarks and enhance the global competitiveness of Japanese higher education.

The primary objectives are to internationalize Japanese higher education and address Japan's demographic challenges. To attract 400,000 international students by 2033, the government plans to improve the environment for accepting and retaining promising foreign talents. This includes reviewing residence statuses, facilitating employment opportunities, and creating attractive educational settings. Moreover, the government aims to introduce a highly-skilled human resource system and a future creation human resource system to attract top talent globally.

Japan's higher education sector has faced significant challenges in recent years. The pandemic-induced border closures severely impacted the influx of international students. The new plan addresses these issues by setting clear targets and proposing comprehensive support measures. Enhancing global student mobility aims to create a more dynamic and skilled workforce, driving innovation and economic growth.

Japan's new educational initiative under the Prime Minister Fumio Kishida represents a significant step towards internationalization, aimed at elevating the global standing of Japanese higher education while tackling key domestic challenges. The International Graduate Program on Civil and Environment Engineering at Saitama University aligns with these goals, focusing on improving education quality by attracting global talent, increasing enrollment, and promoting diversity. We are dedicated to building a vibrant and globally connected academic community in Japan. Since our inception nearly 30 years ago, with our first graduates in 1995, we have seen 452 master's students and 214 doctoral students from 26 countries successfully graduate. One of the core objectives of our program is to support international students by offering education, research opportunities, and training. Having welcomed a significant number of international students into our program, we have experienced diverse perspectives that enrich the learning environment, facilitate global networking, strengthen our international reputation, and contribute economically and culturally to our community. Moreover, all these students are serving as global ambassadors for Japanese education and culture in their home countries.

Greetings from the Head of the Foreign Student Office

I hope this message finds you well and thriving in your endeavours wherever you may be. It is our great pleasure to present this issue of Newsletter, returning to its annual publication schedule as it was before the COVID-19 pandemic. As we reflect on the past year, we take great pride in sharing the latest developments and accomplishments of the International Graduate Program on Civil and Environmental Engineering at Saitama University.

Since its establishment in 1992, our program has produced over 650 accomplished graduates. We are proud to see them actively contributing to various fields of civil and environmental engineering around the globe. To have many more quality students like our alumni in the coming years, we are working harder than we did before, as the worldwide competition to recruit such students intensifies. We would greatly appreciate if you could introduce and recommend our program to your friends and colleagues. We believe we offer numerous advantages, as found in this newsletter, which may not be fully captured by some of the common indices such as world university rankings.

I extend my sincere best wishes for your success in the coming year.

With best regards,

Yasunao Matsumoto
Head of the Foreign Student Office
International Graduate Program on Civil and Environmental Engineering Saitama University

Research Profile Series (25)
Geotechnical & Geosphere Research Group

Geotechnical and geosphere research is integral to understand Earth's materials, structures, and processes. It represents a collaborative endeavor bridging geology, engineering, and environmental science disciplines. It encompasses the study of water, soil, and rocks within the Earth's crust, addressing crucial issues ranging from construction challenges to environmental management and natural hazard mitigation. Geotechnical and geosphere research includes the study of Earth's materials, structures, and processes, focusing on understanding the behavior of soil, rock, and water within the Earth's crust. This research group, consisting of professors, doctoral, master's, and undergraduate students from diverse backgrounds, both Japanese and international, epitomizes the synergy fostered in interdisciplinary research settings.

At the forefront of this collaborative effort lies the Geosphere System Engineering Research Group, a subdivision of Geotechnical and Geosphere Research Group dedicated to exploring various facets of rock mechanics. Their endeavors span evaluating rock properties and behaviors crucial for constructing, tunneling, and maintaining rock structures. Moreover, they research into addressing environmental challenges and mitigating natural hazards exacerbated by climatic shifts. Furthermore, the group extends its research purview to encompass the weathering processes affecting archaeological sites and civil engineering heritage sites, leveraging insights from geological knowledge to develop restoration techniques. These multifaceted studies enrich our comprehension of geological phenomena and pave the way for developing strategies in disaster risk reduction, environmental remediation, and sustainable land management, thereby safeguarding ecosystems and communities from geological hazards.

I have just begun my doctoral studies under the supervision and support of Prof. Chiaki Oguchi. My research activities focus on elucidating landslide initiation ratios in select mountainous regions of Japan, a topic that resonates deeply with my academic interests and aspirations. Collaborative with the National Research Institute for Earth Science and Disaster Resilience in Tsukuba, I am eager to research into this field and advance our understanding of landslide occurrences and behaviors in granitic mountainous terrains.

My journey into academia follows a trajectory marked by academic and practical experience. Having completed my Master's studies at Saitama University in 2020 and subsequently serving as a geologist at the National Building Research Organization in Sri Lanka for three years, I returned to Saitama University to pursue my PhD studies. The decision was not solely motivated by academic excellence but also by the welcoming and supportive environment that Saitama University provides. Reflecting on my personal experiences, I wholeheartedly endorse Saitama University to prospective postgraduate students. The university's commitment to internationalization is evident through initiatives such as providing one-year accommodation at the International House for international students and easing their transition into a new academic and cultural environment. Additionally, the tutor-assigning program offers invaluable support, facilitating administrative processes and aiding in the acclimatization to university life.

Saitama University fosters a vibrant and inclusive community, offering a number of programs and classes that encourage interaction among international and Japanese students, foster enduring friendships, and enable cultural exploration. This conducive environment ensures a fulfilling and enriching experience for all students, embodying the ethos of academic excellence and global camaraderie.

Slope failure in Sri Lanka (Kegalle, Sri Lanka: 2022)

By Ms. Kumari M.A.K.

Graduation Time Congratulations

(Name-Country-Title-Supervisor)

March 2023

(Ph. D degree)

Ms. UMME AYESHA (Bangladesh) "Evaluation of bus service performance based on women commuters in developing countries: A case study on major cities in Bangladesh" | Prof. H. Kubota

(Master's degree)

Ms. PENG JIAYUAN (China) "A study on a new traffic survey method by ITS – Focusing on WCN" | Prof. H. Kubota

Mr. NUR MD ROBIUL HOQUE (Bangladesh) "Characterization of water flow through a scaled model of unsaturated river dike based on image analysis" | Prof. T. Uchimura

Mr. SOURAV RAY (Bangladesh) "Experimental investigation on pull-out behaviour of undercut anchor for precast concrete member" | Prof. T. Maki

Mr. MUHAMMAD UMER AFZAL (Pakistan) "Experimental study on erosion control of soil slope with geosynthetics surface cover by overtopping flow" | Prof. J. Kuwano

Mr. MUHAMMAD FAHAD EJAZ (Pakistan) "Evaluation of bond strength between strain-hardening cementitious composites (SHCC) with the addition of superabsorbent polymer (SAP) and concrete substrate" | Assist. Prof. Y. Luan

Mr. MUHAMMAD HAMID KHALIQ (Pakistan) "Levee-slope erosion under the water surface fluctuations of hydraulic jump generated by vegetation behind a levee" | Prof. N. Tanaka

Mr. FAIZUDIN HAFIZ ZADAH (Afghanistan) "Chloride migration of blast furnace slag blended concrete with different slag ratio and fineness" | Assist. Prof. Y. Luan

Mr. ABU RAIHAN MOHAMMAD AL-BIRUNI (Bangladesh) "Experimental study on scouring and deposition characteristics of riprap due to overtopping flow and their effect on energy reduction" | Assoc. Prof. J. Yagisawa

Mr. BHARGAV ARYAL SHARMA (Nepal) "Dynamic response of highway bridge to autonomous truck platoon with different inter-vehicle spacing" | Prof. Y. Matsumoto

Ms. MOUSUMI IRIN (Bangladesh) "Study on public transport system for sensitive groups: A case study in Dhaka city Bangladesh" | Assoc. Prof. A. Kojima

Mr. NGUYEN QUOC CUONG (Vietnam) "Characterization of hydraulic properties of recycled concrete aggregate blended with autoclaved aerated concrete grains for roadbed materials" | Prof. K. Kawamoto

Mr. KARAVITA VIDANALAGE DON NERANJAN PUBUDU RANAWEERA(Sri Lanka) "Evaluation of water advection and diffusion characteristics of tuff during drying process" | Assist. Prof. Y. Togashi

Mr. MAHDI NABIZADA (Afghanistan) "Assessment of effectiveness of different hump shapes in the car vibration using computer simulation" | Assoc. Prof. A. Kojima

Mr. HEKMATULLAH FAHIMI (Afghanistan) "Flexural strength and deformation of cement mixed sandy soil reinforced by geogrid and short fiber" | Prof. T. Uchimura

Mr. NGUYEN VAN DOAN (Vietnam) "Mechanical properties and particle breakage characteristics of compacted recycle concrete aggregate blended with autoclaved aerated concrete grains for unbound roadbed materials" | Prof. K. Kawamoto

Ms. NGUYEN THI THANH HOA (Vietnam) "Experimental study on drying shrinkage behavior and influence parameters in Vietnam" | Assoc. Prof. S. Asamoto

September 2023

(Ph. D degree)

Mr. KANNANGARA DISSANAYAKALAGE CHARITHA

RANGANA DISSANAYAKA (Sri Lanka) "Study on strengthening the coastal building structures to stand against the overtopped tsunami current from a coastal embankment" | Prof. N. Tanaka

Mr. NGUYEN QUANG THINH (Vietnam) "Application of loop connection and undercut anchor for connections in precast concrete members" | Prof. T. Maki

Ms. KATRINA MAE SANTIAGO MONTES (Philippines) "AI enhanced seismic isolated bridge design and maintenance" | Assoc. Prof. J. Dang

Mr. WAQAR AHMAD (Pakistan) "Effect of moisture content at compaction and the grain size distribution on shear strength of unsaturated soil for drying conditions" | Prof. T. Uchimura

Mr. VU VAN HUY (Vietnam) "Interaction between buses and motorcycles/cars in mixed traffic flow" | Prof. H. Kubota

Mr. TUFAIL AHMAD KHAN (Afghanistan) "State change of unsaturated silty soil in triaxial test" | Prof. J. Kuwano

(Master's degree)

Ms. LE TRAN BICH NGOC (Vietnam) "Characterization of arsenic adsorption onto laterite grains by batch experiments in Vietnam" | Assist. Prof. K. Nakamura

Mr. ZHOU XIN (China) "Experiment study on chloride migration properties of patch repair mortar and concrete incorporating supplementary cementitious materials" | Assist. Prof. Y. Luan

Mr. OVIZIT KUMAR SAHA (Bangladesh) "Experimental Study on the Effect of Sedimentation on the Floodplain by the transverse slope of compound water channels" | Assist. Prof. Y. Igarashi

Mr. KABISH TANDUKAR (Nepal) "Evaluation of extent of damage to geogrid reinforced soil walls subjected to earthquakes by the surface settlement" | Prof. J. Kuwano

Mr. TRINH VIET DUNG (Vietnam) "Coupled analysis of slope movement and crack detection using stereo vision and particle image velocimetry for landslide observation and prediction" | Prof. T. Uchimura

Mr. DINH NGOC DUC (Vietnam) "Numerical simulation of initial cracking of massive concrete based on internal and external restraint effects in tropical regions" | Assoc. Prof. S. Asamoto

Mr. TRINH PHUC THANH (Vietnam) "An investigation of vibration characteristics of RC deck slabs in existing bridges with different degrees of deterioration" | Prof. Y. Matsumoto

Mr. KYAW YE HTIKE (Myanmar) "Modeling techniques for frequency- and intensity-dependent impedance characteristics in pile groups" | Prof. M. Saitoh

Ms. HTOO EAIN LWIN (Myanmar) "Investigating the influence of prestressing magnitude on modal parameters of prestressed concrete bridges" | Prof. Y. Matsumoto

Mr. NGUYEN DUC NHAN (Vietnam) "Steel corrosion survey in old RC bridges and experimental study on water distribution into concrete" | Assoc. Prof. S. Asamoto

News

New Appointments

Dr. Kenichiro Kobayashi was appointed as a Professor of Hydrology and Environmental Hydraulic Engineering on April 1, 2024.

Faculty on Move

Prof. Jiro Kuwano retired from Saitama University on March 31, 2024. He had contributed to the Geotechnical and Geosphere Research Group for a long time.

Prof. Hisashi Kubota retired from Saitama University on March 31, 2024. He had contributed to the Transportation and Planning Group for a long time.

Alumni Information

Prof. Sudhira De Silva, a 2008 doctoral graduate of Saitama University, was awarded the Most Outstanding Scholar of the Year 2022 by the University of Ruhuna on June 7, 2023. The award was presented at the university's 20th Academic Sessions and 19th Vice Chancellor's Awards Ceremony. This prestigious award is given to the best scholars in the university.

Prof. Sudhira De Silva, a 2008 doctoral graduate of Saitama University, was promoted to the Chair Professor of the Department of Civil and Environmental Engineering in June 2023. Additionally, Prof. Sudhira became a fellow of the Institution of Engineers Sri Lanka.

Prof. K.B.S.N Jinadasa, a 2006 doctoral graduate of Saitama University, was awarded the Prof. Lakshman Samaranayake Research Excellence Award 2023 by the University Research Council of University Peradeniya, Sri Lanka. This prestigious award is awarded to the best academic staff who are active in research and are in the permanent cadre of the University of Peradeniya who have undertaken research at the highest international level.

Mr. Khawaja Adeel Tariq, a 2014 doctoral graduate of Saitama University, started working as Professor on 1 August 2022 (at The University of Faisalabad) and is now elected as Professor (from 01 September 2023) at The University of Engineering and Technology Lahore (Narowal Campus) Pakistan.
In 2022, he also won a Higher Education Commision (HEC) Pakistan Grant for his project about "Development of Economical and Eco-friendly Tuff tiles and Bricks using by-products from industries in Pakistan".

Dr. Tufail Ahmad, a 2023 doctoral graduate of Saitama University, received the best paper award for his work titled "Constant volume shear tests on compacted silty soil under constant water content condition" at the 8th International Conference on Structure, Engineering, and Environment (SEE) held in Mie, Japan, from November 10-13, 2022.
In addition, Dr. Ahmad won the best paper award for his work titled "Experimental study on state boundary surface of compacted silty soil" at the 12th International Conference on Geotechnique, Construction Materials and Environment held in Bangkok, Thailand, from November 22-24, 2022.

Dr. Chamila Gunasekara, a 2012 master graduate of Saitama university, was awarded the RMIT Award for Research Engagement and Impact (Early Career Researcher) in recognition of the potential industry impact of his research in construction materials and sustainability in the construction sector by the Royal Melbourne Institute of Technology (RMIT) in November 2023.

Awards

Mr. Sanjeev Bhatta, a doctoral student, received the excellent presentation award for the paper, "Post-Earthquake Multiclass Damage Detection of Reinforced Concrete Buildings Using Quantum Convolutional Neural Network" at the annual meeting of the Japan Association of Earthquake Engineering, held in Hokkaido on December 20, 2022.

Emeritus Prof. H. Mutsuyoshi (Visiting Prof.) received the AY2022 distinguished service award from the Japan Society of Civil Engineers on May 26, 2023. This prestigious award is given to those who have made tremendous contributions to the progress and development of civil engineering, and management of Japan Society of Civil Engineers.

Prof. T. Maki received the Yoshida Award in the field of Thesis for AY2022 for the paper titled "Prediction of Longitudinal Cracks and Evaluation of Load Carrying Capacity for PC Girders Using Multi-Scale Analysis" on May 26, 2023. This prestigious award is given to the brilliant thesis related to Concrete and Reinforced Concrete.

Assistant Prof. Y. Togashi was awarded the Walter Wittke Prize 2023 in Weinheim, Germany on June 2023, the 8th Rock Mechanics and Tunneling Day. This award is given to prominent achievements in the field of rock mechanics from the Walter Wittke Foundation.

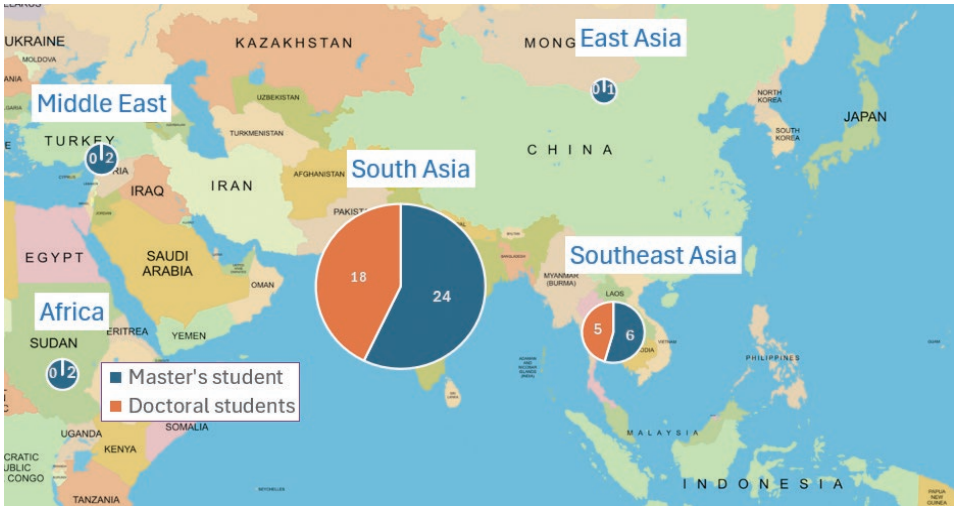
Mr. Pham Van Nam, a Doctoral student, was awarded the best presentation award at the 4th International Conference on Transportation Infrastructure and Sustainable Development (TISDIC) 2023 in Da Nang, Vietnam for the paper titled "Unsaturated hydraulic property of recycled concrete aggregates blended with autoclaved aerated concrete grains for unbound road base and subbase materials in Vietnam" on 1st September 2023.

2023 New Students (April & October intakes)

2024 New Students (April intake)

Associate Prof. Ji Dang and **Mr. Osama Abbas**, a master's student, received the Intelligence, Informatics and Infrastructure Award for Excellent Digital Work for the paper titled "Using image captioning for automatic post-disaster damage detection and identification" at the 4th AI Data Science Symposium on December 16, 2023.

Prof. K. Kawamoto was awarded the Medal for the Cause of Education in Vietnam by the Ministry of Education and Training and received the title of Honorary Professor by Hanoi University of Civil Engineering; HUCE, on May 6, 2024. These are to honor his contributions to education, training, and science research cooperation between SU and HUCE, based on SATREPS "Establishment of Environmentally Sound Management of Construction and Demolition Waste and Its Wise Utilization for Environmental Pollution Control and for New Recycled Construction Materials".



The number of incoming students from Oct 2022 to April 2024

Message from Alumni

It is my great pleasure to introduce myself as one of the alumni of the International Graduate Program of Department of Civil and Environmental Engineering at Saitama University. I joined the Soil Laboratory under the supervision of Prof. Komatsu in 2005 with ADB scholarship and graduated from Master's program in 2007. I was also fortunate to return to my laboratory again and work under Prof. Komatsu and Prof. Kawamoto for my doctoral degree from 2008 to 2011 with MEXT scholarship. During my educational journey at Saitama University, I had invaluable opportunity to work collaboratively with diverse team members and understood the value of working with integrity and dedication. I was also fascinated by the advancement in collaborative research and applied teaching and learning environment within the university. During my educational journey at Saitama University, I also got an opportunity to travel to different parts of Japan as well as overseas and share our research experience through different domestic and international conferences. With the guidance of my supervisor, Komatsu sensei, I also got a research grant from Sasakawa Foundation for my master's research. The knowledge and guidance I received from my professors, external supervisors and seniors was helpful and valuable to successfully complete my study and shape my professional career in the academic field.

Apart from quality education, the International Graduate Program at Saitama University also provides international students a golden opportunity to truly experience and enjoy Japan. I got an opportunity to learn Japanese, which made my stay in Japan easier and comfortable. It also helped me to understand Japanese culture better and interact in the community comfortably. I also got an opportunity to study and socialize with students from different countries, which helped me to get to know them and understand their culture better and has helped me to work comfortably with a diverse and multidisciplinary team. Travelling to Japan and studying in Saitama University was my first experience of leaving my family and country. But my stay in Japan had been the most precious and memorable one. During my first year at Saitama University, I got married and started a beautiful journey with my beloved husband. I am very grateful to my supervisor for understanding this important milestone in my life and helping to maintain a study-life balance.

Lastly, I would like to extend sincere thanks to the Foreign Student Office (FSO) for their continuous support to international students. I would also like to extend my best wishes to the current students in the International Graduate Program at Saitama University. In addition to working hard to successfully complete your degrees, please take time to explore and experience Japan's rich culture and heritage. Also, please try to learn Japanese language and interact with Japanese community.

Dr Anu Sharma

Lecturer/ Learning and Teaching Advisor, Education College of Australia

Message from the Foreign Student Office

Warm greetings from the Foreign Student Office! We hope that you are doing well.

After three challenging years of pandemic, we are finally returning to normalcy. The vibrant voices of students have returned with the hustle and bustle of a new semester. This April, we welcomed 11 freshmen amidst the full bloom of cherry blossoms.

In April 2023, we enrolled 14 students, followed by 13 more in October 2023, from various countries. Each semester, FSO and the international student representatives host welcome gatherings for new students. These events provide an opportunity for students to socialize over tea, mingle, and participate in games, fostering a sense of community.

Last November, we held the "Mutsume Festival" on the university campus, without any COVID-19 related restrictions for the first time in several years. Many international students participated by setting up stalls offering cuisine from their home countries, contributing to a vibrant atmosphere. We also enjoyed exotic dishes and drinks such as kebab and chai.

Events like such are one of the reminders that Saitama University has rich and multi-national atmosphere for all to enjoy.

Since our last issue, we have slightly reorganized the arrangements of articles, and we hope you enjoy the refreshed format of this newsletter.

Finally, as international tourists visiting Japan is nearing pre-pandemic levels, if you visit Japan anytime in the future, please do drop by our office. We always look forward to seeing you!

Stay in touch!

The Foreign Student Office (FSO)

Department of Civil and Environmental Engineering, Saitama University
255 Shimo-Okubo, Sakura-ku, Saitama-shi, Saitama, Japan 338-8570
Phone / Fax: +81-48-858-3555
Email: fso@sun.civil.saitama-u.ac.jp
Web: http://intl.civil.saitama-u.ac.jp
Facebook: https://www.facebook.com/SUnivFSO

Editorial Board for this issue

Chief Editor : Prof. Y. Matsumoto
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