芝浦工業大學 SHIBAURA INSTITUTE OF TECHNOLOGY

AY2025 Global PBL (Outbound) Performance Report

KMUTT-SIT Outbound Global Project Based Learning AY2025 Summer in Thailand

Date	Place	Partner Organization	Students' Major and Grade	Participants' Information	SIT Instructor
2025/09/15 ～2025/09/23	Thailand	King Mongkut's University of Technology Thonburi	・Department of Engineering Science and Mechanics ・Undergraduate 3rd grade、Undergraduate 1st grade、Undergraduate 2nd grade、Undergraduate 4th grade	(SIT) Students 10, Student Staff 1, Professor 3 (King Mongkut's University of Technology Thonburi) Students 25, Student Staff 4, Professor 4	NAGASAWA Sumito(Mechanical Engineering Advanced Mechanical Engineering)

Image1 Excursion-Ayutaya

This gPBL was implemented as an outbound program between Shibaura Institute of Technology and King Mongkut's University of Technology Thonburi (KMUTT). Prior to departure, preparatory learning was conducted through a series of online lectures by Prof. Ishizaki from the Malaysia Office, aiming to develop students' English communication skills and to motivate their participation in the gPBL. On-site, a system development-oriented group work activity was carried out in mixed teams using a mobile robot kit equipped with an Ackermann steering mechanism developed by KMUTT faculty. Students engaged in team-based problem solving while progressively advancing their understanding of the robot mechanism, examining control and sensing elements, and integrating these components into a complete system. In addition, as part of cultural exchange learning, students visited central Bangkok and historical sites such as Ayutthaya together with KMUTT students, engaging in English-based interactions while experiencing Thai history and culture.

In this program, a multifaceted evaluation scheme was implemented by combining the final group presentations with the use of daily communication logs on Slack, submission of daily reports, and pre- and post-program assessments using the MGUDS-S survey conducted with the cooperation of Prof. Yoshikubo from IGP. This design enabled evaluation not only of the final deliverables but also of students' contributions during the process and their learning attitudes.

The students who participated in this gPBL reported a high level of satisfaction. Even after the program, interactions among students have continued, with KMUTT students who had previously participated in either inbound or outbound gPBL programs visiting the laboratory during their free time. Furthermore, collaboration with KMUTT faculty has progressed smoothly, and a notable feature of this year's program is that it was conducted using original teaching materials specifically developed for this program. This has contributed to enhancing the uniqueness of the educational content and deepening the collaborative framework between the two universities.

Image2 Group-Exercise

Image3 KMUTT-Developed-Robot