Japan-U.S. joint gPBL of design, development, and affective evaluation of a virtual space with robots using Unity

Date	Place	Partner Organization	Students' Major and Grade	Participants' Information	SIT Instructor
May24 ～July09,2021	Japan	DePauw University	・Department of Computer Science and Engineering ・Electrical Engineering and Computer Science ・Department of Computer Science and Engineering ・Innovative Global Program ・Undergraduate 3rd grade ・Undergraduate 4th grade ・Master 1st grade ・Master 2nd grade	(SIT) Students 4, TA 1, Professor 4 (DePauw University) Students 4, Professor 2	SUGAYA midori (Department of Information Science and Engineering) OHKURA michiko (SIT Research Laboratories) SRIPIAN peeraya (Department of Information Science and Engineering) LAOHAKANGVALVIT tipporn (Innovative Global Program)

Image1 organizers

This gPBL, a collaboration between Shibaura Institute of Technology and DePauw University, was led by Shibaura Institute of Technology and was conducted from May to July by a total of eight students, including fourth-year students and graduate students from Shibaura Institute of Technology and undergraduate students from DePauw University. Students from Japan and the U.S. worked in groups to design, develop, and evaluate companion robots that operate in virtual spaces; team members (two U.S. students and two SIT students in each team) were selected by May, and they worked together from late May to early July. In early July, they demonstrated the companion robots and the robots were affectively evaluated using EEG and heart rates.

Image2 companion robots

Image3 farewell meeting