

Workshop on Real-World Applications of Robots through Embedded Robotics Practice and Field Research

Date	Place	Partner Organization	Students' Major and Grade	Participants' Information	SIT Instructor
March01 ~March05, 2021	Japan	Universiti Tun Hussein Onn Malaysia	Department of Engineering Science and Mechanics Department of Applied Chemistry Department of Electrical Engineering Department of Electronic Information Systems Department of Machinery and Control Systems Department of Engineering and Design • Undergraduate 1st grade • Undergraduate 2nd grade	(SIT) Students 12, TA 3, Professor 3, Staff 1 (Universiti Tun Hussein Onn Malaysia) Students 12, Professor 2	NAGASAWA Sumito (Department of Engineering Science and Mechanics) YOSHIKUBO Hatsuko (Innovative Global Program) ISHIZAKI Hiroyuki (Malaysia Office) TACHIBANA Masahiko (Innovative Global Program) NED Loader (Innovative Global Program)



Image1 Workshop

The original plan was to invite UTHM (Universiti Tun Hussein Onn Malaysia), one of our partner universities in Malaysia, to Shiraura Institute of Technology. We had to diverge from this original plan, due to the effects of the pandemic on international travel. On the first day of the program, two lectures on Japanese culture were held as a part of the orientation. The participants learned about the history of Japanese robot culture, starting with the karakuri dolls of the Edo period (Tachibana), as well as the Japanese encounters and relationships with foreign languages and cultures (Yoshikubo). In addition, they learned tips for improving communication skills (Loader) and successful team building (Ishizaki). Then, while using the ARDUINO toolkit and TinkerCAD, the participants first acquired basic knowledge through lectures on ZOOM, thought about their own applications through group works, and then created and presented demonstrations of their implementation ideas (Nagasawa). At the beginning of the gPBL, they seemed quite nervous, but as time went by, their communication became smoother, and everyone spoke up in the final presentation, showing their increased motivation to participate. In FY 2020, the number of study-abroad programs have been drastically decreased due to the spread of Covid-19, and it was a very meaningful opportunity for both parties to have this hybrid online/face-to-face gPBL. We hope that the relationship between the participants will develop to the point where they can visit each other's countries in the future. On the first and last day of the program, all participants were asked to fill out the Cross-Cultural Competency Assessment (Yoshikubo). We will measure and analyze the effects later.



Image2 ARDUINO Tool Kit



Image3 Installation Demo



Image4 Certificate Handover



Image5 Certificate Online Delivery

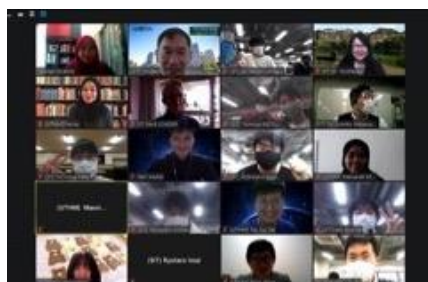


Image6 Closing Ceremony Group Photo

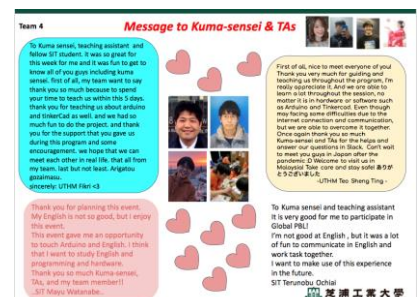


Image7 Message board to Prof. Nagasawa & TAs