

## PBL on solving social problems through IoT systems

Date	Place	Partner Organization	Students' Major and Grade	Participants' Information	SIT Instructor
September 01 ~ September 11, 2020	Japan	Universiti Teknologi Malaysia	Department of Information and Communications Engineering • Undergraduate 1st grade • Undergraduate 2nd grade • Undergraduate 3rd grade • Undergraduate 4th grade • Master 1st grade • Master 2nd grade	(SIT) Students 19, TA 2, Professor 2 (Universiti Teknologi Malaysia) Students 11, TA 2, Professor 6	MORINO Hiroaki (Department of Information and Communications Engineering) HORIE Ryota (Department of Information and Communications Engineering)

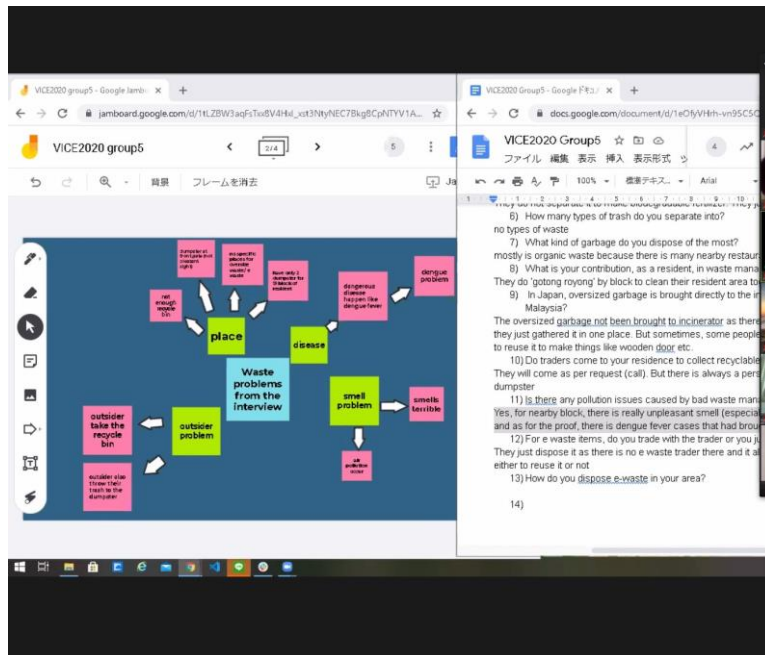


Image1 Discussion1 (Understanding the problems)

This PBL was conducted online due to the corona disaster. The program was almost the same as the one originally planned to be conducted in Malaysia. The aim of this project is to devise solutions to problems that actually exist in a local community in Malaysia, by interviewing residents in the vicinity of Universiti Teknologi Malaysia (UTM) and investigating how to solve the problems through IoT systems consisting of microcontroller and sensor with WiFi function. Participants were divided into groups and came up with ideas. The participants competed their ideas on three topics: automatic body temperature check and seating location search for mosque mass worship, solving the problem of odor caused by illegal dumping of garbage in a housing complex, and detection of double parking in a parking lot. It is verified that participants can collaborate online by using software tool such as Google Jamboard and Gool Docs, and also using software to design and test electric circuits.

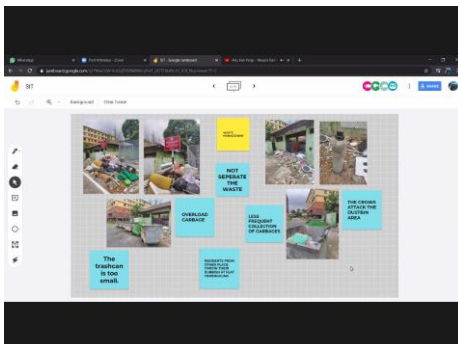


Image2 Discussion2 (Creating the solutions)

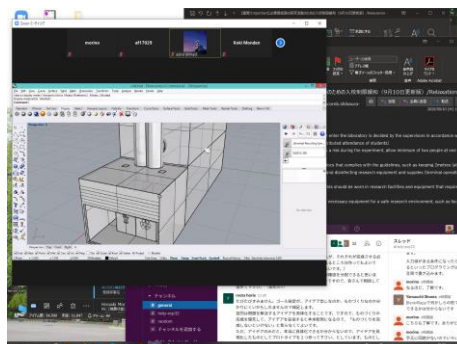


Image3 Prepare for the presentation of idea

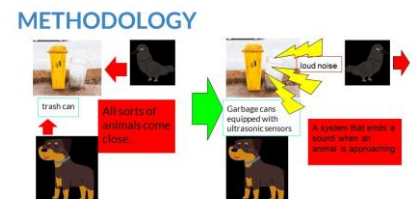


Image4 Presentation document