## Global PBL and Research Workshop on Information and Communications Engineering ---- Inviting graduate students from Universiti Utara Malaysia (UUM) ---

Global PBL and Research Workshop on Information and Communications Engineering was held at Toyosu Campus, Shibaura Institute of Technology from November 14 to November 21 in 2016, hosted by Department of Communications Engineering. It was financially supported by JST Japan-Asia Youth Exchange Program in Science (SAKURA SCIENCE) for inviting 10 graduate students and one professor from School of Computing, UUM (Universiti Utara Malaysia). Additionally, four more students from UUM participated in this program supported by JASSO scholarship for Top Global University Project.

This program provided a Global PBL activity, a research workshop as poster sessions and some cultural exchange activities. Table 1 and Table 2 show the summary of this program and the schedule at a glance, respectively. In total, 47 students from 11 countries (UUM: 5 countries, SIT: 6 countries) cooperated in the Global PBL in solving research issues, which are Wearable Computing, Drone Technology and Self-Driving Cars. In addition, 32 students presented their own research topics in the poster sessions.

Date	From Nov. 14 to Nov. 21, 2016				
Venue	SIT Toyosu Campus				
Participants from UUM	14 graduate students (12 Doctoral course students, 2 Master's course students)				
	33 students (from B4 to D3 and research students)				
Participants from SIT	11 faculty members from Department of Communications Engineering				
	Ms. Reiko Kageyama (UGA) and some staff of International Office				
	Wearable Computing				
Global PBL	Drone Technology				
	Self-Driving Cars				
Research Workshop	32 poster presentations by students				
(Poster sessions)	Discussion on their own research				
	Miraikan (National Museum of Emerging Science and Innovation)				
Science and Technology Tour	NTT (Nippon Telegraph and Telephone Corporation) Museum				
	NICT (National Institute of Information and Communications Technology)				
Cultural exchange	Japanese culture: Yukata (Japanese summer kimono) and paper-crafting				
Guiturai excharige	Networking: "Diversity of Education System in Different Countries"				

Table 1 Summary of this program

Table 2 Schedule at a glance

Dat	e	A.M.		P.M.	
Nov.13	Sun	7:15(MH88:T2) / 7:35(TG642:T1)	10:30 Arrival at	12:00	15:00 Check-in
		Arrival at NRT	Hotel/Airbnb/Apartment	Visiting Ueno-Akihabara	Hotel/Airbnb/Apartment
Nov.14	Mon	9:00 Opening	11:00 Ice Breaking	12:30 Welcome party	14:00 gPBL
		5F Meeting room	5F 501	3F GLC	13F Exproom
Nov.15	Tuo	9:00 gPBL		13:30 gPBL	
	Tue	13F Exproom		13F Exproom	
Nov.16	Wod	9:00 gPBL(Preparation for presentation)		13:30 gPBL(Presentation)	
	weu	5F 501		5F 501	
Nov.17	Thu	9:00 Hotel	10:00 Miraikan	14:00 Culture exchange	15:30 Networking
	mu			8F Library	3F GLC
Nov.18	Fri	8:30 Toyosu campus	10:00 NTT Museum	14:00 NICT Lab.	17:30 Toyosu campus
Nov.19	S.++	9:30 Workshop (poster session 1)		13:30 Workshop (poster session 2)	
	Sat	5F Meeting room		5F Meeting room	
Nov.20	2	Summarizing PBL			
	Sun	13F Exproom			
Nov.21	Mon	9:30 Closing, Feedback	11:00 Farewell party	Free activities	
		5F Meeting room	GLC		
Nov.22	Tuo	5:00 Check-out	10:30(MH89) /9:45 (TG64	41)	
	Tue	Hotel/Airbnb/Apartment	Departure from NRT		

### (1) Arrival day

14 students and one professor arrived at Narita airport. Prof. Kamioka, Assoc. Prof. Horie and three GSS members exchanged greetings with them and took them to their hotel (at Kiba), Airbnb (at Ryogoku) and apartment (at Kinshi-cho). After that, they spent time visiting Ueno-Akihabara area until check-in time (at 3 pm).



Greetings at Narita airport, Terminal 2



Greetings at Narita airport, Terminal 1

## (2) Guidance and Opening ceremony

Three GSS members brought UUM people to Toyosu campus. Firstly, the guidance for this program was carried out by UGA Ms. Reiko Kageyama, instructing how to use ID-card, Wi-Fi, Library, and so forth. Subsequently, the opening ceremony was held, consisting of short talks by Prof. Shinichi Tanaka and by Prof. Ku Ruhana, welcome address by President Masato Murakami, instruction of this program by Prof. Eiji Kamioka, introduction of the faculty members of Department of Communications Engineering and group photo session with all the participants.



Welcoming address by President Murakami



Message from Prof. Ku Ruhana



Photo session in Opening ceremony

### (3) Ice-breaking

Ice-breaking was performed to become better acquainted with each other by cooperating in solving a problem called "Hata-Furi", which is usually used at the new student orientation. One of SIT graduate students instructed the procedure in classroom 501, and then both UUM and SIT students discussed how to send the information of text message and pictograph by using a pair of red-and-white flags. After the discussion, they actually performed it in the courtyard of Toyosu campus.



Instruction by an SIT graduate student



Simulation of sending information



Discussion how to send information



"Hata-Furi" in the courtyard

(4) Welcome-party

Welcome-party was held at Global Learning Commons on the 3rd floor of lecture building, Toyosu campus. Five types of HALAL foods were catered from a restaurant at Roppongi.



HALAL foods by catering



Welcome-party at Global Learning Commons

#### (5) Global PBL

Assoc. Prof. Morino instructed the Global PBL. Three themes, namely, 1) Wearable Computing, 2) Drone Technologies and 3) Self-Driving Cars, were given as discussion themes. The participating students were divided into nine groups and one theme out of the tree themes was assigned to each group. They confirmed the current technologies and application services related to each theme and brought up the issues to be solved. After doing a brainstorming about the solutions to each issue, they made a proposal. Each group prepared for a presentation on their discussion, and finally made a presentation. Each group had 10 minutes for presentation and 5 minutes for Q&A including discussion with the participants. Four papers will be submitted to international conferences in December, 2016 as achievements of the Global PBL.



Instruction of Global PBL



Presentation of achievements



Brainstorming about solutions to the issues



Discussion of proposals

## (6) Research Workshop

Two poster sessions were held as the Research Workshop on Information and Communications Engineering. 32 students presented their own research and discussed with the participants.



Poster sessions in Research Workshop

#### (7) Science and technology tour

Three GSS members picked up 15 participants from UUM people at their accommodations and took them to Miraikan (National Museum of Emerging Science and Innovation) located in Odaiba area on Nov. 17. In addition, UUM people with Prof. Gyoda, Prof. Kubota, Prof. Horiguchi and 2 SIT students visited NTT Museum and NICT Laboratory by a chartered bus on Nov. 18.



Miraikan

NTT Museum

NICT

(8) Japanese culture experience

UUM people and SIT students enjoyed wearing "Yukata" (Japanese summer kimono) and paper-crafting at the library of Toyosu campus.



Wearing "Yukata"



Paper-crafting

(9) Networking

Both UUM and SIT students discussed "Diversity of Education System in Different Countries" at Global Learning Commons over having snacks.





Discussion of education system in each country

#### (10) Closing ceremony and feedback

In the closing ceremony, all the participants got the certificate which show they completed this program. Surprisingly, UUM people were wearing the same T-shirts, stating "GLOBAL PROJECT BASED LEARNING". They made and brought them from Malaysia. As a feedback of this program, all the participants made an assessment of the outcomes on an assessment sheet which will be made the best use of for the future activities.



Certificate of this program

T-shirts for Global PBL



Front design

Back design

(11) Farewell-party

Farewell-party was held at Global Learning Commons as well as Welcome-party.



Farewell-party at Global Learning Commons

# (12) Departure day

After checking-out at their accommodations, UUM people departed for Narita airport. One of their flights returned to Narita airport after three hours from the take-off due to a trouble of the flight equipment. Finally, they arrived in Malaysia safely.