April 1, 2016
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Advanced gPBL program at UUM (Universiti Utara, Malaysia)

Advanced gPBL program was hosted by Department of Communications Engineering in SIT and was conducted at Universiti Utara, Malaysia from February 28 to March 10, in 2016. This program was originally proposed as an extension to the research collaboration between Prof. Eiji Kamioka's laboratory in SIT and Prof. Ku Ruhana Ku Mahamud's laboratory at School of Computing in UUM. This program was aimed at finding collaborative research themes suitable for both universities. Therefore, two technical sessions, which were International Workshop on Information and Communication Technologies and Advanced gPBL on IoT, were planned. In addition, some cultural exchange activities were involved in the program.

This program was focused on finding problems on research issues or finding research issues themselves rather than learning something based on given problems. That is why this program was named Advanced gPBL.

Table 1 shows the summary of this program.

Summary of Advanced gPBL program

Date	from Feb. 28 to Mar. 10
Location	School of Computing in UUM (Universiti Utara, Malaysia)
Accommodation	University Inn
Participants from SIT	[Students] 21 students (B2, B4, M1, M2, D1, D2, D3) [Faculty and staff members] Prof. Eiji Kamioka, Prof. Koichi Gyoda Assoc. Prof. Hiroaki Morino, Assoc. Prof. Ryota Horie Ms. Reina Nishioka (Student Affairs Section) Ms. Yasuko Takayama (SGU Initiatives Section)
International Workshop	All the students gave their research presentations in terms of information and communication technologies, and discussed the proposals with the audience in order to brush up their research.
Advanced gPBL	Defining IoT (Internet of Things), finding the issues, extracting the problems, proposing the solutions, discussing the effectiveness and concluding the proposed novelties
Cultural exchange	UNESCO Grobal Geopark Study Museum of USM (Universiti SAINS, Malaysia) and Gua Kelam tours

(1) Transportations

School of Computing in UUM supported almost all the transportation by bus.

1) From Alor Setar Airport to University Inn, and vice versa.
2) From University Inn to School of Computing building, and vice versa.
3) From University Inn to Gua Kelam, and vice versa.

It is impossible to get to School of Computing building from University Inn on foot since it would take about one hour.

(2) Campus tour

UUM campus tour was conducted and the school bus took us to almost all the places. This is the second largest campus among universities in Malaysia, including a golf course, a go-cart course, a lake for kayaking, a lot of forests, and so forth. The campus size is approximately four times of the one of Hokkaido University.

The students from SIT learned the history of UUM at the Welcome Centre. The banner for Advanced gPBL program was raised at School of Computing building.

Historical exhibitions at UUM Welcome Centre

Banner for Advanced gPBL program

(3) Meeting with organizers

An important meeting with the organizers was held at the Vice Chancellor building. "Vice Chancellor" in a national university in Malaysia is equivalent to "President" of Japanese university. Professor Ruhana, the Deputy president, International affairs division staff and Students affairs division staff joined the meeting. The LoI (Letter of Intent) contract for this program and MoU (Memorandum of Understanding) for future collaborations were confirmed. Note that both the LoI and the MoU were signed before this program started.
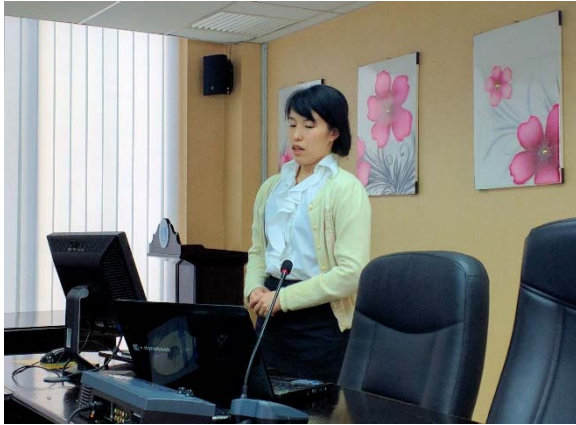

Meeting with organizers

Exhibition room of the Vice Chancellor building

（4）Workshop on Information and Communication Technologies
The International workshop on Information and Communication Technologies was held. Students from SIT and UUM presented their research activities and discussed the details through Q&As.
In total, more than 40 students and 4 professors joined the workshop. On the first day of the workshop, SIT Japanese students were especially nervous. On the second day, however, they were more relaxed and happy as they had blended into the environment.

Presentation in the workshop

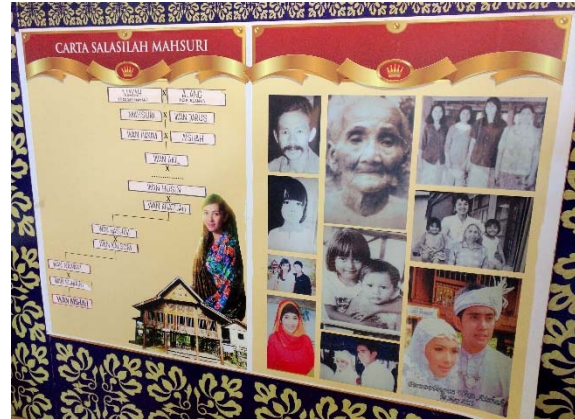Discussion in the workshop

First day of the workshop

Second day of the workshop

(5) Cultural exchange

An excursion for UNESCO Grobal Geopark Study in Langkawi was conducted. UNESCO Grobal Geopark is organized by United Nations Educational, Scientific and Cultural Organization, Global Geoparks Network, ASIA Pasific Geoparks Network and so forth. One of the most important historical places in Langkawi is Mahsuri's house.

The most impressive thing here was that most SIT Japanese students listened to the English audio guidance intently. They might have become used to listening to English after the workshop.

Mahsuri's house which is a famous historical place in Langkawi

In addition, Museum of Universiti SAINS Malaysia (USM) tour in Penang was included as a venue for the cultural exchange. This museum is officially known as Muzium & Galeri Tuanku Fauziah. SIT students were very interested in the exhibitions since it covers many areas in science and engineering.

Museum of USM in Penang

⑹ Advanced gPBL on IoT

Advanced gPBL on IoT (Internet of Things) was performed. This was one of the most important activities of this program. At first, Ms. Madam Sharima gave a lecture on "What PBL is". Many students did not know the true meaning of PBL, hence, the lecture was valuable for them. Then the participants were divided into 6 groups. Each group discussed the definition of IoT, then found the issues and extracted the problems. After that, they proposed the solutions to the problems, and finally each group made a presentation as the summary of discussion. The discussion with the audience was quite active, and then a lot of students felt that this was a fruitful experience.

This group activity was a very effective way for students to become better acquainted with each other. After this PBL activity, they made a lot of Facebook friends.

Lecture on PBL

Group discussion

Brainstorming

Presentation

Participants of Advanced gPBL on IoT