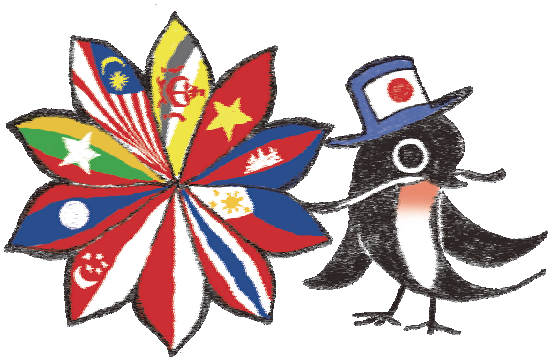

Tokyo Tech-AYSEAS 2017

Tokyo Tech-Asia Young Scientist and Engineer Advanced Study Program 2017

Final Report

—From Asia to the World—

ACKNOWLEDGEMENT

Tokyo Tech-AYSEAS (Tokyo Tech-Asia Young Scientist and Engineer Advanced Study Program) Administration Office and all Tokyo Tech-AYSEAS 2017 members would like to thank the following cooperating organizations, companies and universities (listed here in the order we visited them and according to other cooperation) for the precious opportunity to visit them in the Philippines and for the discussions with students from partner universities in the Philippines, Indonesia and Vietnam.

TOTO LTD. Research Institute
HGST Philippines Corporation
FUJITSU DIE-TECH CORPORATION OF THE PHILIPPINES
Makati Development Corporation
JICA Philippines Office
EPSON PRECISION (PHILIPPINES), INC.
Department of Science and Technology
Toyota Motor Philippines Corporation
Asian Development Bank
De La Salle University
University of the Philippines Diliman
Institut Teknologi Bandung
Universitas Indonesia
Ho Chi Minh City University of Technology

Special Thanks to **De La Salle University,** this year's host university in the Philippines.

Special thanks to the **Tokyo Tech Fund** and the **Support Office for Promotion of Global Human Resource Development** for supporting the students' travel expenses.

List of Contents

About the Program

1. Program Information

A) Outline

Tokyo Institute of Technology (Tokyo Tech) launched the Tokyo Tech-Asia Young Scientist and Engineer Advanced Study Program (Tokyo Tech-AYSEAS) in 2013. It is the successor to the highly successful Japan-Asia Young Scientist and Engineer Study Visit (JAYSES), which was launched in 2007 with the aim of establishing networks of promising young persons in Asia. Tokyo Tech-AYSEAS continues in the spirit of JAYSES while developing as an integral part of the Global Scientists and Engineers Course, of which it recently became a part. Tokyo Tech-AYSEAS provides opportunities for participants to broaden their horizons through collaboration with students from different backgrounds and to experience the dynamism of rapidly growing Asian industry, education and government.

This year, we visited the Philippines, and learned from many people working for manufacturers, government organizations, and educational institutions.

Tokyo Tech-AYSEAS 2017's main theme was "From Asia to the World." The program primarily consisted of the three parts outlined below:

1) Preparatory studies

The Tokyo Tech participants had preparatory study sessions to deepen their understanding of the technical visits planned in the Philippines.

- Lectures about several topics
- Visit to TOTO LTD. Research Institute
- Basic Tagalog
- Study and presentations (in English) on the institutions to be visited in the Philippines
- Discussion sessions to improve oral English

2) Activities in the Philippines

a. Technical visits to Japanese and Filipino companies, government organizations, university and Asian Development Bank.

b. Group discussions and presentations

At the end of each day, students discussed what they learned at the institutions and exchanged opinions. Based on the discussions, each group

chose one topic and made a presentation on the last day. The topics are below:

- Cultural difference and understanding on different culture (Understand others/Let others understand us)
- Precise forecast of natural disasters and developing cost of forecasting methods
- Technology transfer between countries and the effect on business growth in each country
- Improvement of health condition and excessive population increase
- Development of energy resources and protection of environment
- Economic growth and gap between the rich and the poor
- Education and industrial management
- Motorization and traffic jam
- Innovation and regional/global competition

3) Reporting

Tokyo Tech students published the Final Report (this report) and held a final reporting session after their return to Tokyo.

B) Objectives

1) To learn how the latest technologies and methodologies are applied to the practical stage in the Philippines, and to learn about the support from and control by government organizations.
2) To experience collaboration with students from different nationalities, cultures, languages, viewpoints or fields of study.
3) To brush up on their English skills as a tool for international communication.
4) To develop close and international friendships.

C) Participating Universities

Japan	Tokyo Institute of Technology (Tokyo Tech)
The Philippines	**De La Salle University (DLSU):** Host university of Tokyo Tech-AYSEAS2017
	University of the Philippines Diliman (UPD)
Indonesia	Institut Teknologi Bandung (ITB)
	Universitas Indonesia (UI)
Vietnam	Ho Chi Minh City University of Technology (HCMUT)

D) Benefits for the participants

1) Participants can develop an international human network.
2) Participants can learn the latest technologies in Filipino industry and about the relationships between ASEAN countries and Japan through private investment or Official Development Assistance (ODA).
3) Participants receive certificates issued by an Executive Vice President of Tokyo Tech.
4) Participants can collect useful information about studying at Tokyo Tech.
5) Participants can improve their English skills.

E) Expected Results

1) More Japanese students will study abroad
2) More ASEAN students will study in Japan
3) Build a strong, international student network between top-ranking universities in ASEAN countries and Japan

2. Schedule of Tokyo Tech-AYSEAS 2017

April - May 2017	Announcement and application
May - June	Selection
June - July	Preparatory studies
September 11 - September 21	Activities in the Philippines
November 8	Final presentation session at Tokyo Tech

Schedule of Preparatory studies

Date	Theme
June 13	Orientation, Lecture by Prof. Nakashima
June 20	Lecture by Prof. Hope
June 27	Lecture by Prof. Hayashi
July 4	Lecture by Prof. Kiguchi
July 11	Visit to TOTO LTD. Research Institute
July 18	Lecture on the Philippines and Taagalog lesson by Dr. Mariquit
July 25	Pre-trip presentation

Schedule of Activities in The Philippines

Date	Event
September 11	Participants arrive in the Philippines Ice Breaking Session
September 12	HGST Philippines Corporation
September 13	FUJITSU DIE-TECH CORPORATION OF THE PHILIPPINES Makati Development Corporation
September 14	JICA Philippines Office EPSON PRECISION (PHILIPPINES), INC.
September 15	Department of Science and Technology Toyota Motor Philippines Corporation
September 16	Tagaytay Skyranch, Puzzle Mansion Bed & Breakfast
September 17	Intramuros, Manila Ocean Park
September 18	Asian Development Bank Tokyo Tech Seminar at DLSU
September 19	Preparation for presentation and Cultural Exchange Party
September 20	Final Presentation and Closing ceremony
September 21	Tokyo Tech Students arrive in Tokyo

3. Selection

A) Tokyo Tech students

1) Announcement at Tokyo Tech

The Tokyo Tech-AYSEAS administration office announced the program through its website, posters and flyers in April. They had briefing sessions on several occasions including the Study Abroad Fair and English events on campus.

2) Application

Applicants submitted an essay with their application titled "What is your purpose and expectations for joining Tokyo Tech-AYSEAS?" within 500 words in English by 22 May 2017. The number of applications this year was 22.

Statistic of application (by nationality and gender)

Nationality	Female	Male	Total
Japan	5	11	16
China	1	3	4
Indonesia	1	0	1
India	1	0	1
Total	8	14	**22**

Statistic of application (by grade, school and gender)

Years of Study	Grade	Female	Male	Total
Undergraduate	B1	1	2	3
	B2	0	0	0
	B3	4	6	10
	B4	1	5	6
Total of Undergraduates		**6**	**13**	**19**
Graduate	M1	2	0	2
	M2	0	1	1
Total of Graduates		**0**	**1**	**3**
Grand Total		**8**	**14**	**22**

3) Interviews

Tokyo Tech-AYSEAS panel meeting members interviewed the applicants in May and June. The applicants were divided into five groups of 4-5 persons.

They were asked to have a discussion for 20 minutes and to give a presentation about their conclusions.

The topic was as follows.

"Recently, 'National Particularism' is spreading all over the world.

In the United States, Mr. Trump was elected as the President. He is saying "Make America great again". The United Kingdom chose to leave the European Union (EU) in a referendum (national vote). In France, a candidate from an extreme right political party gathered popular support in the President election, although she lost finally.

Discuss the following:

Why is National Particularism rising around the world recently and what kind of effect might it have on science and technology?"

4) Criteria for Selection

The essays were scored based on the applicant's English ability, logical composition, and eagerness. In group discussions, applicants were appraised by assertiveness, cooperativeness, logicality, calmness, and attitude by Tokyo Tech-AYSEAS panel meeting members.

B) Students from partner universities

Students from partner universities sent their applications to Tokyo Tech. There were 20 applications from six universities this year. The applications were sent for selection to the applicants' home universities, and 12 students participated in the program.

The certificates signed by the Executive Vice President of Tokyo Tech were given to the participants.

Statistic of application (by country and gender)

Country	Female	Male	Total
Thailand	1	1	**2**
The Philippines	3	8	**11**
Indonesia	1	4	**5**
Vietnam	1	1	**2**
Total	**6**	**14**	**40**

Preparatory Studies in Japan

Outline

Before departure, Japanese participants had three kinds of preparatory sessions: Lectures by professors, discussion sessions and facility visit in TOTO.

Lecture

The lectures we attended at are listed below.

June 13 Technology and Ethics for Sports (Prof. Motomu Nakashima)
June 20 Learning to see other cultures (Prof. Tom Hope)
June 27 Contributions of Life Science to the Development (Prof. Nobuhiro Hayashi)
July 4 Single molecular electronics (Prof. Manabu Kiguchi)
July 18 Lectures on the Philippine culture and language (Prof. Hirofumi Hinode, Dr. Eden Gan Mariquit)
July 25 Pre-trip Presentation and Safety Lecture in the Philippines (Prof. Shin-ya Nishizaki)

We had final presentations to share the information about the organizations that we would visit in Philippines. Divided into groups of 2 students, each group presented about De La Salle University (DLSU), Makati Development Corporation (MDC), HGST Philippines Corporation, Department of Science and Technology (DOST), Asian Development Bank (ADB), JICA Philippines Office and Japanese companies (EPSON Precision (Philippines) Inc., Fujitsu Die-Tech Corporation of the Philippines, Toyota Motor Philippines Corporation).

Discussion

Before visiting Philippines, we held some discussion seminars by ourselves. The main purpose of these seminars was to improve our English skills and practice discussion in English with other participants.

Topics which we discussed are below.

Face recognition system
Animals
Nations

TOTO LTD. Research Institute

Reporter: Daichi Yamazaki (Daichi)

Date & Time: 15:00 ~ 17:00, July 11, 2017

Program: Presentation of general information about TOTO, Factory tour, Q&A session.

Contents of visit and Reporter's comment:

TOTO (Tokyo Tohki) is a Japanese corporation known as holding #1 share of toilet facility in Japan. At train stations, in houses, TOTO's products are everywhere in our living space. As a factory visit, we visited one of the TOTO's factory in Chigasaki, Kanagawa. In spite of the name "factory", this factory is now no longer producing TOTO's products, so this facility is now functioning as research institute. So, exactly, we looked around this research institute.

First, a staff of TOTO gave us information about the company. TOTO was established at 1917. Since then, TOTO has brought several innovations in toilet and bathroom. In 1964, TOTO made the first "unit bathroom", where bathtub and toilet bowl are in same room, in Japan. In 1980, TOTO made the first "Washlet", which is nowadays commonly known as automatic washing toilet system. Since that year, TOTO has made a lot of improvements to Washlet, and has made various kind of model so that customers can find one which fits to their lifestyle. TOTO development office has three departments: Domestic department, Global department, New domain department. In Domestic department, they are now seeking to increase sales in house remodeling area. They are producing a product not only of toilet but also of bathtub or kitchen space. As time goes by, our house design has changed gradually. They are suggesting their best design to their customers. In Global department, they are trying to grab a market share in Asia, Europe, and United States. They are advertising their brand Washlet as luxury choice of toilet to differentiate from the other companies' brands. In New domain department, they are developing new technology to keep toilet bowl clean or make comfort room more comfortable.

Next, they took us to facility visit. We visited two places: the model room of house equipment, and show room of new products or technologies. At the model room of house equipment, we could compare new design with old design. One of the feature of new design is "Barrier-free design". With that design, elderly people can live easier than with the old design. We could see new technology there. In kitchen, there was a special faucet of which anti-bacteria water comes out. This water is named "kirei jokin sui (kirei anti-bacteria water)". This technology is to produce sodium hypochlorite, which is usually used in kitchen as sanitizing water, using chlorine contained in tap water with electrolysis. With this technology, we can produce anti-bacteria water

just when we need it. Then we moved to next show room. At the show room of new products or technologies, we were excited to see amazing technologies. I'd like to introduce two technologies we saw there. 1. Automatic water tap which doesn't need electricity cord. This water tap has a generator inside, and it can generate sufficient amount of electricity to keep all sensors and switches working from the water flow. 2. Automatic sanitizing system of Washlet. The latest model of Washlet has this function. Every time we use a toilet, this system automatically sprays "kirei jokin sui", anti-bacteria water, inside the toilet bowl. Using this system, we can keep clean our toilet even if we forget to clean the toilet bowl for several weeks.

Fig.3 New kitchen design in the model room

Fig.4 Latest model of Washlet for normal home

Then, we went to Q&A session.

Q&A:

Q1: Why isn't the share of toilet bowl in South East Asia or South Asia high?

A1: Because in South East Asian country they have their own style of toilet. They already have a custom to use water to wash their bottom. So the difference of the custom is perhaps preventing from our products spreading within those countries.

Q2: Why ceramic is usually used to toilet facility?

A2: Because of its toughness. Different from other materials, ceramic products can be used for 30 years or more.

Q3: What is the difficulty of making a ceramic product?

A3: The most difficult process is designing. Ceramic products are put in oven in the last process. In this calcination process, ceramic changes its shape. So we have to take this in consideration when we design a product. Fortunately, simulation technology has improved, so it is becoming easier to design products.

Thinking after our trip is over, the choice of the facility tour having been very suitable for the objective for our program. This is because we had a plenty time to think about cultural difference of toilet when we were in Philippines. Sometimes we were confused to see the different type of toilet and realized how comfortable and clean Japanese toilet is, when I remembered Q1 of the Q&A session. In Philippines, I couldn't see any toilet bowl made by TOTO, instead I could see American Standard's one everywhere. To install Washlet in Philippines, I found several problems to be solved. The most important one is Filipino's morality. I saw many public properties were stolen or destroyed at many places in Philippines. I think this situation is because there are lots of poor people in the country and they are seeking money to live. If Washlet is installed in public toilet in Philippines, it will be stolen within a day. Indeed, Washlet IS a luxury toilet. But there were many points I felt uncomfortable about Philippines' toilet, so I think TOTO can produce a product which goes with local toilet customs and which can make Philippines' toilet more comfortable. I'm sure that is what also Filipinos wants.

PRE-STUDY LECTURE

Reporter: Ayako Tsuchiyama (Ayako)

Date & Time: 16:50~18:20, July 18, 2017

Program: Lectures on the Philippine culture and language

Contents of visit and Reporter's comment:

On July 18, we listened to a lecture of the Philippine culture and language. Philippines are located in Southern Asia and consist of more than 7,100 islands. It takes around 4 hours from Tokyo to Manila which is the capital of Philippines. As a point of islands, they are similar to Japan which has around 6,800 islands. However, their climate is tropical one, so it is always hot and there is no season without rainy season and dry one. Actually, during our stay in Philippines, we had experienced some storms and heavy rain caused by a strong typhoon. Then, our opening ceremony had been cancelled because of it.

Anyway, we learned about Philippines such as national language, original culture and cuisine through this lecture. They speak Tagalog as their national language, but sometimes they combine Tagalog and English. So they can also use English as their second mother tongue.

Moreover, the most famous restaurant among Filipino is "Jollibee". There is a kind of rumor that whoever can be happy if a person who feels sad goes there. Jollibee serves fast food, sweet pasta and halo-halo which is the most famous sweet in the country.

During this program, we tried to eat a variety of food in Philippines. Their cuisine are basically a little bit spicy and sweet. Thanks for this lecture providing information, we could really enjoy Filipino culture.

Fig.1 Jollibee

Fig.2 Jollibee with participants

Technical Visits

Outline

Technical visits are the main activities of AYSEAS. We visited nine organizations listed below, and we got a lot of information and experiences.

These visits helped us to understand the current relationships between the Philippines and the world, especially Japan, and the role of science and engineering in the society. At the same time, these were special opportunities to think about our own future careers.

Generally, the visits were divided into three parts as follows; presentation about the organization, facility tour, and Q&A session. Through these activities, we could see the organizations from various aspects.

Detailed reports on each technical visit are on the following pages in the same order as the schedule below.

Schedule

September 12 (Tue)	HGST Philippines Corporation
September 13 (Wed)	FUJITSU DIE-TECH CORPORATION OF THE PHILIPPINES
	Makati Development Corporation
September 14 (Thu)	JICA Philippines Office
	EPSON PRECISION (PHILIPPINES), INC.
September 15 (Fri)	Department of Science and Technology
	Toyota Motor Philippines Corporation
September 18 (Mon)	Asian Development Bank
September 19 (Tue)	De La Salle University

Edited by Mia

De La Salle University Manila (DLSU Manila)

Reporter : Felicia Dea Mulyadi (Dea)

Date&Time : Tue, 9/12 (cancelled); Wed, 9/19; Thu, 9/20

Program : Opening ceremony (cancelled), lunch, campus tour, cultural exchange, final presentation, farewell party

Contents of visit and Reporter's comment:

Not only the opening ceremony but also all teaching learning activity on the campus on Tuesday, September 12th 2017 was canceled due to heavy shower that paralyzed some roads. AYSEAS participants spent a peaceful morning doing other morning routines in the hotel.

On Wednesday the next week, however, all of the participants went to the school for a campus tour and preparation for the final presentation. All visitors need to have IDs to go inside the campus. The security there was quite strict, with a motto "no ID, no entrance".

We departed at 8:30 and some of the DLSU students were kind enough to guide us for a campus tour. Inside, there was a statue of the virgin Mary and some greenery. We stop by the campus' merchandise shop. Some of the participants bought goodies such as T-shirts and stickers. Most of the goods are characterized by the color green.

After shopping, we split into two groups. My group went to see civil engineering's laboratory, where many big and bulky measuring instruments are placed and maintained. We also crossed between buildings using skyways. DLSU Manila has exceptionally tall buildings. Some of the buildings are 20-or-more-story buildings. We had our lunch on the 7th floor, cultural exchange at another floor, preparation on the 20th floor, and final presentation on the 12th floor, all in the same building. As additional information, the main buildings in DLSU are named after saints or the rich of the Philippines, such as Velasco for engineering building and St. Miguel Hall for science building.

Overall, DLSU is excellent in terms of infrastructure. The classrooms are well air conditioned, the floorings wiped clean, and there are plenty of space for the students to discuss and relax. A conductive environment for the young scientists, businessmen, engineers, and even exchange students to learn and grow.

Fig. 1 Cultural exchange audience

Fig. 2 Farwell party

HGST Philippines Corporation

Reporter: Misaki Hanamura (Misaki)

Date & Time: 13:30~16:30, September 12, 2017

Program: Presentation of general information about HGST Philippines Corporation, Factory tour, Q&A session.

Contents of visit and Reporter's comment:

1. Presentation

Fig.1 Entrance of Western Digital

HGST is a company which mainly manufactures Hard Disk Drives (HDD). HGST is one of the companies under control of Western Digital. SanDisk is also under control of the company. In HGST Philippine Corporation, it manufactures some parts of HDD. Its mottos are "Think big", "Do it together" and "Make it happen" especially the second one is the most important. In addition, it is regarded, in the company, important to take responsibility to contribute to society. Each employee in the company can get salary to support 6 persons living costs.

The company has won so many prizes because of its high contribution to the Philippine society. (Fig.2) Especially they won the Golden prize of an annual competition in Philippine three times and became a hall of famer. Including HGST, there are only two companies became hall of famers.

Fig.2 A large number of award plates

2. Factory tour

We looked around manufacturing line of "slider" which is one of the parts of HDD. This part plays the important role in writing data in HDD.

There are so many procedures. Material is cut and polished. Repeating the procedures again and again, finally, the material turns circle into tiny square product "slider". The slider is so sensitive that there are some places we can't enter. But thorough this tour, we can learn how hard making slider and products are.

Q&A:

Q1: Why does the unprocessed product have a round shape?

A1: To keep uniformity of the product.

Q2: What kind of thing are you challenging now?

A2: Especially to reduce the procedures.

Fujitsu Die-Tech Corporation of the Philippines (FDTP)

Reporter: Haichen Jiang (Jason)

Date & Time: 9:00-12:00, September 13, 2017

Program: Presentation about company, factory tour, Q&A session

Contents of Visit and Reporter's Comment:

1. Presentation about company

   Fujitsu Die-Tech Corporation of the Philippines is a company engaged in tool and die manufacturing and the production of ATM. It was established in 1996 by Fujitsu Frontech LTD. (FTEC). The main products of FDTP include financial terminal components, processing parts and so on. FDTP is applying the unique tablet system to every aspects of production to enhance the efficiency in work and focusing on the improvement customer satisfaction by organizing many KAIZEN (improvement) activities.

2. Factory tour

   After the presentation, we visited two plants of FDTP and were impressed by the power of the unique tablet system. By going around assembly area and Press & SMA manufacturing area equipped with tablets, we found that employees can check necessary information from tablets anytime to confirm the course of production and do the job without many supervisors. They also use this tablet system to store the employee profile so that they can handle the personal information of workers immediately and assign them proper work to increase the efficiency of production.

Fig.1 Group Photo

Q&A:

Q1: When did you install the tablet system for producing in the plant.

A1: We installed the tablet system for one assembly line in the late 2015 and installed for other assembly lines in 2016.

Q2: Would you sell this tablet system to other company?

A2: We have a plan to offer this system for the suppliers of our company in the next year because this system could shorten a lot of cost so our supply chain would be stronger than ever and it's what we want.

Makati Development Corporation

Reporter: Yuto Kowata(Yuto)

Date & Time: 14:00~17:00, September 13, 2017

Program: Presentation about Company & Project, Worksite tour, Q&A session

Contents of visit and Reporter's comment:

1. Presentation about Company & Project

MDC is the construction company and the subsidiary of real estate company, Ayala Land, Inc. belonging to Ayala Corporation that is the oldest and greatest Philippine conglomerate. MDC provides top-notch Engineering, Procurement, Construction and Construction Management services to their customer. Especially they have high technology and experiences to construct tower building.

2. Worksite Tour

We visited their worksite related to "Ayala Triangle Garden Project". This construction will be done by 2019. Actually, its construction has been conducted by MDBI which is one of the subsidiary of MDC and Bouygues Batiment International that is French construction company. The number of worker in this project was 2,720 at most. MDC introduced "PROCORE", the management software, to this project, it allows them to work without paper in their worksite. One of the problems in worksites in the Philippines is high mortality of worker caused by electric shock, falling and so on. But MDC has reduced it because they have higher safety mind, therefore they have kept mortality in their project as near zero as can be.

Fig.1 Worksite visit

Fig.2 Group photo

Q&A:

Q1: Which aspects have you contributed to the problem-solving your country has?

A1: Office, mall and housing units we built have promoted economic growth in PHL. We need to continue to build especially office buildings to keep growth.

Q2: What is your advantage compared to other construction companies in PHL?

A2: Huge revenue presented by Ayala group & the amount of experience.

JICA Philippines Office

Reporter: Kensuke Ichikawa (Ken)

Date & Time: 10:00~11:30, September 14, 2017

Program: Presentation about JICA and its operation in the Philippines, Scholarship from JICA, Q&A session

Contents of Visit and Reporter's Comment:

1. Presentation about JICA and its operation in the Philippines

JICA and its procedure were first established by Japanese government when Japan started to join the Colombo plan and to support technical cooperation projects against other countries. JICA provides many kinds of development assistance such as ODA loans, Grant Aid, Technical Cooperations, Development Studies, and Volunteers. About JICA in the Philippines, they are the top donor to the Philippines and this means that the Philippines is one of the most important partners to Japan.

JICA considers that the development in infrastructure is very important for development of the Philippines. That' why JICA has been providing the projects about MRT, Airport, Bay and Expressway. And now, their projects are going to the next stage, the Metro Manila Subway project. The objective of this project is to strengthen Metro Manila's transportation and expansion of its economic sphere.

2. Scholarship from JICA

First, this scholarship is available only for the students from East Asia. Its pillar is 'Innovative Asia', aiming to enhance the circulation of component human resources between Japan and Asia countries and to promote innovation in the whole of Asia. Those who want to study master's or doctor's degree in Japan will be supported. However, the fields are limited to Science, Technology and Engineering which can help innovation in the future.

Fig.1 group photo

Q&A:

Q1: What kind of transportation is the most important for traffic connection?

A1: Massive transportation with enough efficiency to have people use it instead of private vehicles so that the traffic could be improved.

Q2: Is there any duty or responsibility after getting scholarship from JICA?

A2: They have to study well in Japan and they should stay several years in the agency. JICA wants them to be skilled enough to contribute to their original countries.

EPSON PRECISION (PHILIPPINES),INC. (EPPI)

Reporter: Rio Takewaki (Rio)

Date & Time: 14:00~ 16:30, September 14, 2017

Program : Presentation of general information about EPPI, factory tour, Q&A session.

Contents of visit and Reporter's comment:

[Presentation]

EPSON PRECISION (PHILIPPINES),INC.(EPPI) was incorporated in December 1994 as a subsidiary company owned by Seiko Epson Corporation, Japan. Although Epson produces a lot of equipment, EPPI mainly focuses on two products, printers and projectors. 40000 printers which have a big tank system are produced in only one day. 8000 projectors are produced in a day.

[Factory tour]

In the factory tour, we observed a training center where employees learn how to use and manage some machines and tools. Employee took the examination at that time. If they do not get enough score, they would not start their work. That is why the quality of equipment of EPPI is always kept at a high standard. After that, we saw very efficient system where empty boxes are gathered in one place automatically. Installing this system, EPPI can save a lot of time much more than before. In addition to that, EPPI is trying to use a new system. Even though assembled products are delivered by people at present, EPPI have the idea of using belt conveyor lines to deliver them efficiently.

We could get to know that EPPI places importance on high quality and efficiency.

Fig.1 products made in the Philippines

Q&A:

Q1: Will EPPI replace humans with machines?

A1: It is difficult because of cost and safety.

Q2: How many EPPI products can't make shipment?

A2: Only 0.01%.

Department of Science and Technology

Reporter: Kotomi Noguchi (Kotomi)

Date & Time: 8:30~ 11:30, September 15, 2017

Program : Welcome Remarks and Introduction of DOST, EDPC and ADMATEL Tour, Q&A session.

Contents of visit and Reporter's comment:

The Department of Science and Technology (DOST) administers programs about research and education. DOST has seven Research and Development Institutes and eight Science and Technology Service Institutes. We visited two places, Electronics Product Development Center (EPDC) and Advanced Device and Materials Testing Laboratory (ADMATEL). EPSD and ADMATEL belong to the Industrial Technology Development Institute (ITDI). ITDI is one of the Research and Development Institutes.

EPDC is an electronics design facility that provides design, prototyping and testing facilities for printed circuit boards (PCB), which is the primary electronics component that mechanically supports and electrically connects electronic components. We saw a big Lab which prevents radio waves to transmit outside the room.

ADMATEL is a DOST national testing facility established to provide advanced failure analysis and materials characterization services for the semiconductor and electronics manufacturing industries. We saw employees are doing research in the room which is kept very clean. The lab is separated by field.

Fig. 1 group photo in ADMATEL

Fig. 2 EPSD photo

Q&A:

Q1: What nationality of employees work?

A1: Only Filipinos work. But there are laboratories in other ASEAN countries, and other nationalities work in there.

Q2: What kind of research does DOST put effort into?

A2: They put effort into research of disaster. They plan to do space research in the future.

Toyota Motor Philippines Corporation

Reporter: Yuki Yasudome (Yasupi)

Date & Time: 13:30~16:00, September 15, 2017

Program: Presentation of general information about Toyota Motor Philippines Corporation, factory tour and Q&A session.

Contents of visit and Reporter's comment:

Toyota Motor Philippines Corporation is a branch of TOYOTA MOTOR CORPORATION which is a Japanese multinational automobile manufacturer headquartered in Toyota city, Japan. There are two main pillars in this corporation, "Continuous improvement" and "Respect for people". When it comes to "Continuous improvement", there are three main parts, "Challenge", "KAIZEN" and "GENCHI GENBUSTU". These are necessary for this corporation to be a good corporation.

Fig.1 Group photo

Q&A:

Q1: How do you think about self-driving car? Is it possible in near future?

A1: It is possible on the highway because the road is only one way. However, on the normal road, it is impossible. Nobody can realize it technologically.

Q2: Why is TOYOTA strong in global competition?

A2: They think highly of customers compared to other companies.

Q3: Half of cars in the Philippines are made by TOYOTA. This means responsibility of traffic jam of Philippine is mainly TOYOTA. Do you contribute to Philippines in return?

A3: It doesn't make very much difference because half of the cars in the Philippines are made by other companies.

Q4: Why have employees been able to work for this corporation compared to other companies?

A4: They tried to set up the aim of employees constantly so that they keep the motivation.

Asian Development Bank (ADB)

Reporter: Yuta Shimamura (Yuta)

Date & Time: 9:00~12:00, September 18, 2017

Program: Presentation about company, Company tour, Q&A session

Contents of visit and Reporter's comment:

ADB aims for an Asia and Pacific free from poverty. In these countries, about 330 million people live on less than $2.0 a day. About 1.5 billion people lack access to improve sanitation. One child in 25 dies before reaching age 5. Over 5 million people live with HIV and AIDS. To improve these situations, ADB provides loan, grants and technical assistance. Countries do not have to reply for grants and they can acquire a large amount of fund by loan. In the company tour, we visited the library and it was also interesting.

Fig.1 Group photo

Fig.2 ADB photo

Q&A:

Q1: Why are the presidents always Japanese?

A1: Japan's share is the biggest (36%) so it has the biggest responsibility to uphold ADB.

Q2: What happens if a country fails to repay and pay interest of the loans?

A2: The case never happened before. ADB gives loans according to excellent risk calculations.

Q3: Why is ADB's building in the Philippine so majestic?

A3: Japan's ministry of finance contributes a lot to it.

Q4: Can the share percentage be changed overtime?

A4: Share percentage is a ministry level decision therefore not easily changeable.

Q5: Is it possible to adjust the investor share in ADB since I remembered that Japan invested more than 30% from the total funding?

A5: Every year it held annual meeting to discuss about that and the investment share.

Discussion and Presentation

Outline

We visited 5 companies and 3 organizations. In order to share what we learned from these visits and pursue deep understanding of current topics in ASEAN countries, we had a discussion at the hotel and presentation at DLSU. We were divided into 5 groups and each group decided their own discussion topics provided by faculty members. We had discussed our own topic and prepared for final presentation in weekday. In the final presentation, each group had 20 minutes for presentation and 10 minutes for Q&A session. This is the rough schedule and introduction of each group as follows.

Schedule & Groups

September 12 (Tue)	Western Digital (HGST Philippines Corporation), Meeting
September 13 (Wed)	FUJITSU DIE-TECH, MDC, Meeting
September 14 (Thu)	JICA, EPSON PRECISION (PHILIPPINES), INC, Meeting
September 15 (Fri)	DOST, Toyota Motor Philippines Corporation, Meeting
September 18 (Mon)	ADB, Meeting
September 19 (Tue)	Preparation for presentation
September 20 (Wed)	Preparation for presentation, Final presentation

Group 1: “The condition of traffic in Metro Manila”
Members: Jason, Kotomi, Daichi, Tine, JA

Group 2: “Development of energy resources and protection of environment”
Members: Nicole, Michael, Yutaro, Ken, Dea

Group 3: “Innovation and local / global competition”
Members: Ayako, Rob, Joseph, Abi, Yuki, Mia

Group 4: “Economic conditions: societal gap in Japan, Indonesia and Philippines”
Members: Mina, Hans, Rio, Madoka, Yuta

Group 5: “Believe: Understanding on Different Culture”
Members: Misaki, Mizuki, Yuto, Thunder, Amin, Latifa

Edited by Yuto

Group 1: The condition of traffic in Metro Manila
Member: Jason, Kotomi, Daichi, Tine, JA

Contents:

1. Introduction

Today, many Asian countries have traffic problems. Of course, The Philippines has too. Traffic jam is one of the biggest problem in The Philippines. It's very serious problem for People in The Philippines because they have to a take long time to go school or office or anywhere. So we discussed about how traffic jam is caused and solutions of traffic jams.

2. Discussion

Fig.1 traffic jam in Philippine

Firstly, we learned about transportation in Metro Manila from JA and Tine. They are Pilipino students. Main transportation in Metro Manila is car, so many people use cars. On the other hand, trains are not usual way because they have some problems.

Secondly, we discussed about why traffic jam in Philippine is so serious. We had 4 ideas. First reason is driver's traffic morality. Motorcycles appear from nowhere, the distance between cars in very close and cars squeeze into rows. Second reason is too many cars. Many cars come in, out, and within Metro Manila because Manila is developed, lots of people drive to Manila from suburbs. Third one is few train rails. There are only 4 train rails in Metro Manila. And there are only 62 stations. Compared with other big cities, it's very few.

Manila	62
Tokyo	935
Beijing	345
New York	472

Table 1 the number of stations

Last reason is narrow roads. Tricycles park on roads. Many roads have no sidewalk so pedestrians can't walk safely. It's also dangerous to ride a bicycle.

Lastly, we talked about relationship between motorization and traffic jam. We thought increasing motor vehicle is the main reason of the traffic jam. But it's just external sense. We thought that the real factor to the traffic in Metro Manila is big population boom.

3. Our suggestion

To improve current situation, we suggested 5 categories of solutions.

First solution is about infrastructure. Most of people use cars, so the number of cars increases, traffic jam become worse. If some of them use other transportation way, we can reduce the number of car users. We thought building train networks within Metro Manila, road networks connecting key cities near Metro Manila, infrastructure (other than pedestrian's sidewalks) that will encourage people to walk and elevated road networks within Metro Manila are good for traffic jam.

Second one is zoning and integration of nearby province. It's problem that only few cities are developed. If other city will develop and become to be able to gather the people, population between Metro Manila will decrease and they can reduce the number of cars coming to Metro Manila. For example, we suggested to create business/economic areas outside Manila.

Third one is road design. Road design is not good for people to use transportation system other than the car. Making road good, people can use many kinds of transportations. For example, placing pedestrian's sidewalk and increasing the width of existing roads, so people can walk safely. They can move to farther places.

Next one is technology. If we control the traffic by using some technology, road condition become better. We suggested that adaptive design for stop lights that may depend on the traffic at intersections or approach roads, and that integrate the timing of stop lights for the whole Metro Manila.

Last one is low implementation and other campaigns. Government will introduce proper implementation and enforcement of laws involving transportation and/or traffic, people will drive carefully. And creating laws or ordinances that will encourage work at home, especially in the IT industry is good, because people who work in Manila but live in outside will not have to come to Manila, so we can reduce population coming into the city.

4. Conclusion

Comparing with other big cities, finding the problems, thinking about relationship between motorization and traffic jam, we can find that there are some reasons why Filipino traffic is so crowded, and some solutions to solve traffic problem. We think these ideas will make traffic jam better.

Edited by Kotomi

Group 2: Development of energy resources and protection of environment

Member: Nicole, Michael, Yutaro, Ken, Dea

Contents:

1. Introduction

First of all, we chose this topic because of the following reasons. Recently, it is said that environmental problems have become the largest problem in the world. According to Asian Development Bank we visited in the AYSEAS program, Asia is consuming more resources than can be produced sustainably, therefore we need effort to sustain our environment and enhance human welfare. In fact, the world is using up its natural resources at a rate 50% faster than can be replenished. If we do not change our behavior, by 2030 we will need two planets worth of resources to support us.

2. Discussion

The core of our presentation was about suggesting some new energy resources.

As preliminary, we discussed about why we need to protect the environment. According to our discussion, first, air pollution costs money and lives, for it is 4^{th} largest risk factor for premature deaths. Second, we concluded that restoring deforested and degraded lands leads to benefits to economy and climate.

Next, we discussed about some environmental problems. As we know, CO_2 emission of past fifty years has remarkably increased. Because of the increasing use of fossil fuels, greenhouse gases are accordingly and exponentially increasing. Besides CO_2, fossil fuels also emit NO, N_2O, and SO_2; sources of air pollution.

Lastly, we discussed about what the energy resources are. Energy resources can power life, meaning it has the potential to preserve life. We can divide them into the renewables or non-renewables. Nonrenewable energy is limited in amount, for example, coal, petroleum, gas, and uranium. On the other hand, renewable energy is generally replenished or unlimited energy, for example, the solar energy. However, both kinds of energy have advantages and disadvantages each.

3. Suggestion

The suggestion we proposed was the enforcement of 2 kinds of renewable energy which many people haven't really heard of, yet we think are worth knowing and developing.

The first was heat, which is processed by thermoelectric generator (TEG). Using TEG we can convert heat into electricity. The mechanism is the practical use of Seebeck effect: by using temperature gradient that establishes voltage. Heat sources such as the sun, volcano, and hot spring can be used. The advantages of this are the abundant sources, comparably high energy efficiency, and high durability.

Out second suggestion was the typhoon energy. This was found and is being developed with Japan's high technology. This is a kind of wind power generation, with much more robust structure that it can endure the high-powered wind, such as typhoon. The advantages of this technology are the operability during typhoon, bigger supplied energy than normal wind, and its renewability.

4. Conclusion

In final presentation in this program, Nicole talked about introduction and the recent status of energy usage, Dea talked about environmental problems, Yutaro talked about renewable energy and nonrenewable energy, Ken talked about TEG, and Michael talked about typhoon energy. In Q&A, many students asked about the mechanism of TEG and the typhoon energy more concretely, and our group's idea about the future of energy resources.

In this project we could cooperate using our knowledge very well. Even though I thought the Japanese guys did not speak English that well, the other guys still listened to it kindly.

Fig.1　Group2 picture in farewell party.

Edited by Yutaro Fujisawa

Group 3: Innovation and local / global competition

Members: Ayako, Rob, Joseph, Abi, Yuki, Mia

Contents:

1. Introduction

What is innovation? What kind of strategies are installed for local / global competition? During this program, we visited many companies and learned a lot of things. Innovation of companies are different each other. First of all, we introduced what is innovation for typical companies and then explained what is innovation for AYSEAS members.

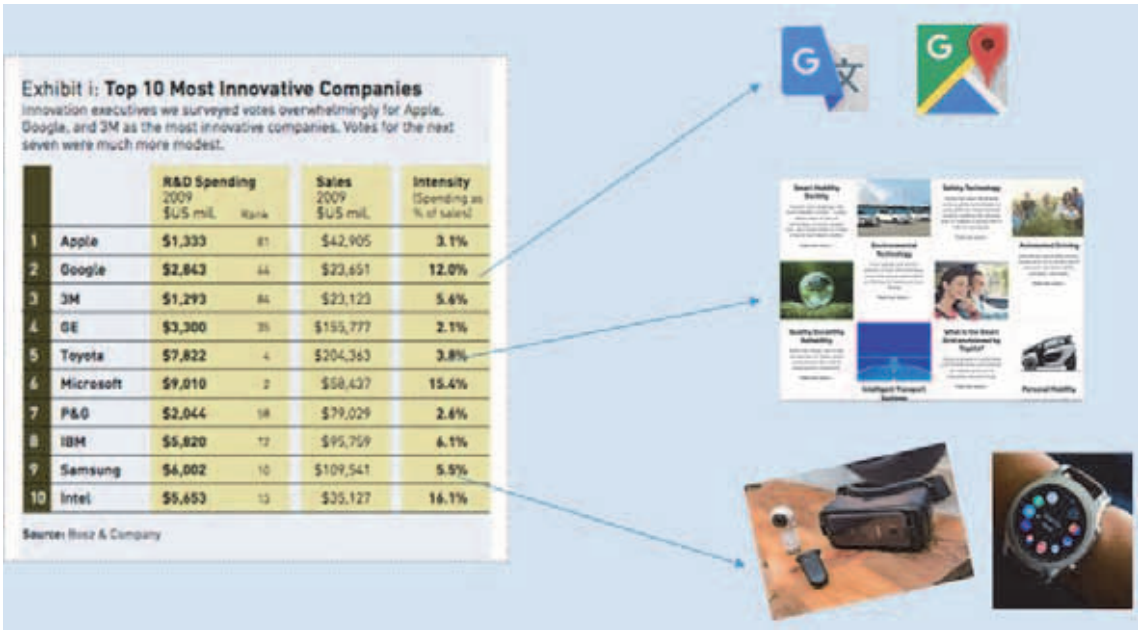

Fig.1 Companies which innovate

Before this presentation, we asked AYSEAS members four questions, “Which product do you prefer to buy, produced by a global company or a national one? Why?”, “Which company do you want to work at a global company or a national one?”, “What do you think about innovation?”, and “What are the measurements used for innovation?”. After asking four questions, we summarized answers and explained about these answers.

2. Discussion

First, we discussed about four questions and work out a solution for our group. Judging from answers of these questions and what we learned from companies we visited, we made new three questions, “Why do we need innovation?”, “What kind of strategies should be installed for global competition?” and “What are the advantages and

disadvantages of innovation and global competition?". We discussed these questions and told our opinions to the audience.

3. Our suggestion

Based on answers of some questions, we found that there are advantages and disadvantages of innovation and global competition.

Advantages	Disadvantages
Profit of the companies will get higher	CSR Activities will decrease
People ability will be improved	People are needed to be more educated
Processes will be faster and the quality of the products will be much better	Local Companies will not be able to cope up with the Global

Fig.2 Advantages and Disadvantages of innovation and global competition

Furthermore, we think that the reason why we need innovation is responding to increasing customer expectations and taking advantage of the global entrepreneurship movement. Also, we suppose it is important to have people with higher skill and try to attain the highest technologies for global competition.

4. Conclusion

Finally, we found that innovation is necessary for us to make our world better, but we as engineers should consider the other effects of it as well.

Fig.3 Group Photo

Edited by Yasupi

Group 4: Economic Conditions: Societal Gap in Japan, Indonesia, and Philippines

Member: Mina, Hans, Rio, Madoka, Yuta

Contents:

1. Introduction

We started our discussion from one present which we got from FUJITSU DIE-TECH. (Fig.1) That present was a towel with handmade stitch. Actually, that stitch was made by women who had not had any jobs and searched something from mountain of garbage for their life. NPO (Nonprofit Organization) gave them the opportunities and the place where they can enhance their work skills. It is a one of support of working educational program. Honestly, we were pleased so much when we got this original present which was included our own name and that the pictures were to different each other. And then we thought that the problem of economic gap especially in East Asian Country is so serious bad we may be able to solve through these kind of project. So, we decided to discuss about economic gap for our team topic.

Fig.1 the gift from FUJITSU DIE-TECH

2. Discussion

We discussed about each countries' education system a lot. Even though we have a lot of ways to solve Economic Gap problem for example, to improve infrastructure, transportation, and so on but we thought that education was most important thing at the foundation of economic gap. If people could get better education, the society will change. More and more people will be able to know how to get the work in their country and also international. We compared budget for education to each county. Japanese have 41.43 USD for education and Indonesian have 26.36 USD, it is almost half of Japan. Filipino have only 12.72 USD. Almost all Japanese live in middle class and they can enjoy stable life. And we realized that as budget are less, economic gap become bigger.

For example, in Philippine, 74.7% people live in lower class and 25.2% people live in middle class and only 0.1% of people live in upper class, there is wide economic gap.

3. Our suggestion

We felt budget for education was one of solution to improve the gap but this solution cannot be enforced at once. So we suggest the solution using connection of each country. In Japan, we have the most up-date technology but we don't have manpower. In Philippine and Indonesia, we don't have the newest technology but have a lot of manpower. The solution is giving education and entrepreneurship to these developing country from Japan. The people who study about business or technology in Japan should take away to their country and start business. If the people who study about starting business increase, employment opportunities also increase. That is our suggestion to solve economy gap.

4. Conclusion

The economy gap especially in the developing country is so serious. To solve this problem, we conclude that improving education system is important with each countries connection. But to do that, especially in Japan, we have to improve our English skill. Almost all Japanese are not good at speaking English. To connect with many country and solve economy gap, let's study English more!

Fig.2 Team member photo

Edited by Madoka

Group 5: Believe : Understanding on Different Culture

Member: Misaki, Mizuki, Yuto, Tor (Thunder), Amin, Latifa

Contents:

1. Introduction

First of all, 2 members of group 5 were responsible for Cultural Exchange, and our group consisted of Indonesian, Filipino and Japanese. It is common knowledge that each country has different religions. (Indonesian : Islam, Filipino : Catholic, Japanese : unaffiliated) And non-Japanese wanted to know why Japanese don't have specific religion.

We thought that it is important to know other religion to make good relation. And we should know own religion to explain for foreigners.

For these reasons we decided to discuss about "Cultural difference and understanding on different culture)

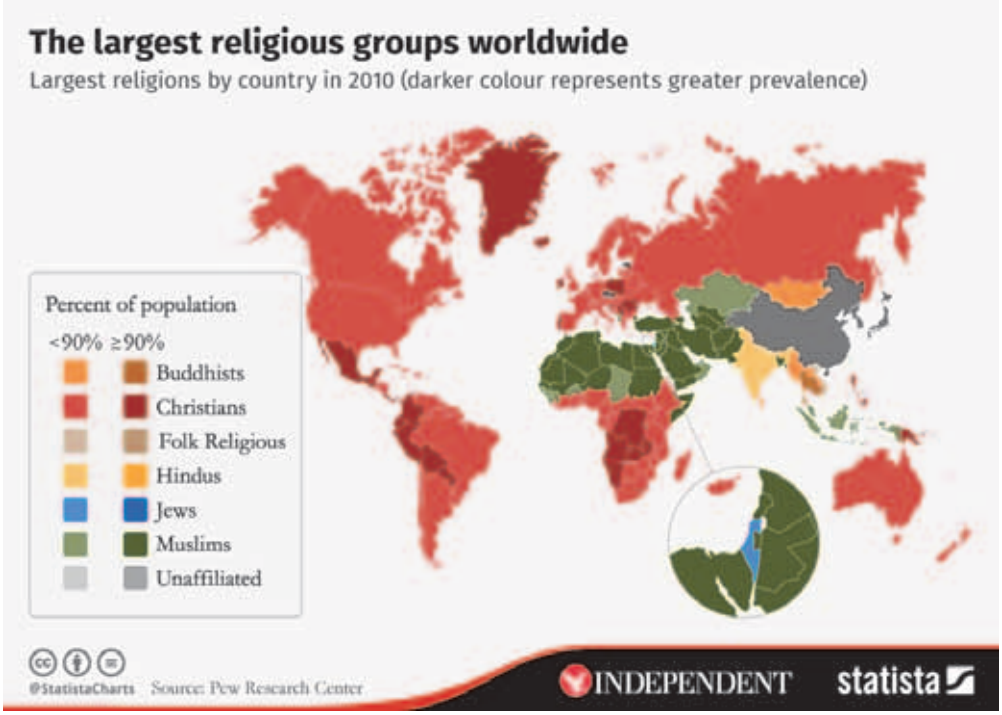

Fig.1 distribution of world religion

2. Discussion

There are a lot of conflict caused by difference of religion. These conflicts are happened to exclude other religion. In Japan there are no conflicts but discriminations in unconsciousness.

We thought why conflict and discrimination happen. Then we noticed that we don't know own and other religion well.

So we held presentation to explain own religion each other, and after presentation, we

made time for Q&A session.

3. Our suggestion

The participants of AYSEAS expect to work all over the world in the future. So we thought that we should know what religious problem will happen when we go to other country.

a. In the case of Japanese

Philippine

・Plant management considering Sunday Services.

>>>Our daily life would not change drastically.

Indonesia

・Must decide specific religion.

・Restriction of food and fashion.

b. In the case of Indonesian

Japan

・Since majority of Indonesian are Muslims (Islam) and Muslim is minority in Japan, so there will be difficulties to practice their belief.

・Strict view will lead to difficulties in building friendship.

Philippines

・Except in Mindanao, it will not be easy to find place to pray and halal food.

c. In the case of Filipino

Japan

・The limited number of catholic church.

Indonesia

・None at all

4. Conclusion

Finally we thought how to solve these problem.

・Be flexible

・Seek first to understand then to be understood.

・Communication is the most important to build mutual understanding.

Through this discussion we realized how important explaining ourselves to make good relationship.

Edited by Mizuki

Evaluation of AYSEAS 2017

All 27 participants in Tokyo Tech-AYSEAS 2017 were given a questionnaire about the program. The following evaluation was based on the answers to the questionnaire.

[Section A] Evaluation for overall Tokyo Tech-AYSEAS 2017

Q1. What was your FIRST MOTIVATION to participate in this program?

Answers

- ✓ To make international networking (11)
- ✓ To improve English skill (6)
- ✓ To share knowledge and opinion about problem in ASEAN (4)
- ✓ To go abroad (2)
- ✓ To try something new (2)
- ✓ To visit companies (2)
- ✓ To find more practical aspect of engineering (1)
- ✓ Professor recommendation (1)
- ✓ To complete GSEP (Global Scientists and Engineers Program in Tokyo Tech) (1)

Summary

Most of participants aimed to communicate with international students.

Q2. Were you satisfied with Tokyo Tech-AYSEAS2017?

(1: Not satisfied at all, 5: satisfied very much)

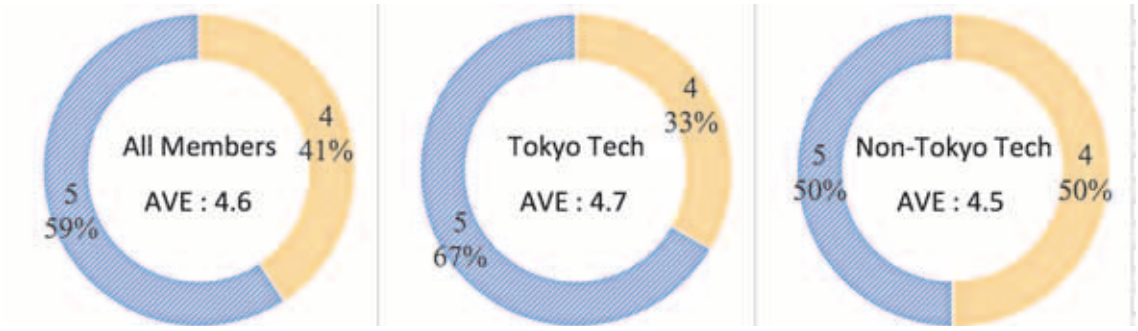

Fig. 1 Evaluation of Satisfaction

Summary

All of participants were satisfied with the program.

Q3. What did you think of schedule arrangement? (1: very hard, 5: Not hard at all)

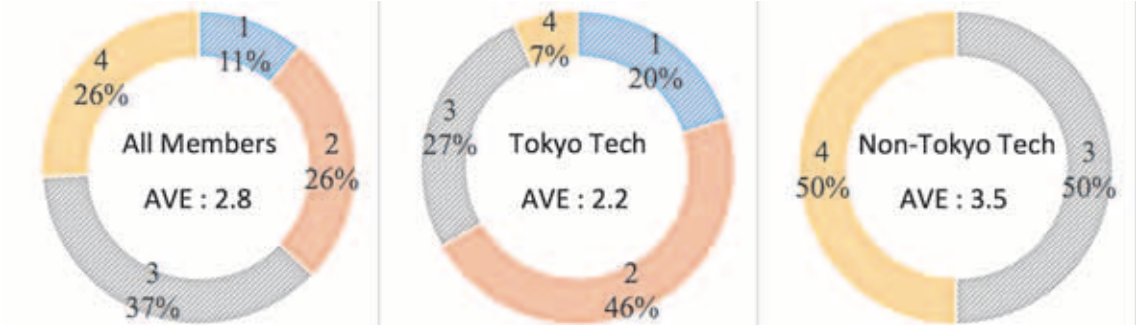

Fig. 2 Evaluation for Schedule Arrangement

Summary

The schedule was hard for especially Tokyo Tech students.

[Section B] Evaluation for parts of Tokyo Tech-AYSEAS2017

Q1. Please grade each part of the program (1: Not satisfied at all, 5: satisfied very much)

DLSU

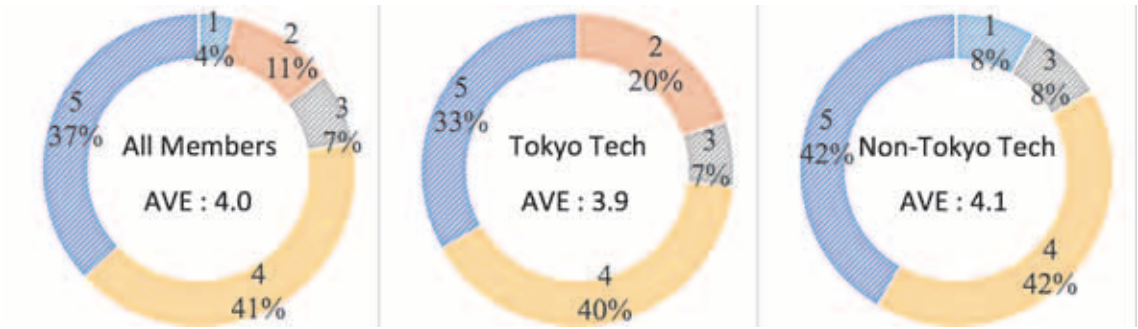

Fig. 3 Evaluation for DLSU

- ✓ It was fun to see the other participants' reactions.
- ✓ I could see student life in the Philippines and could compare with that in Japan.

HGST

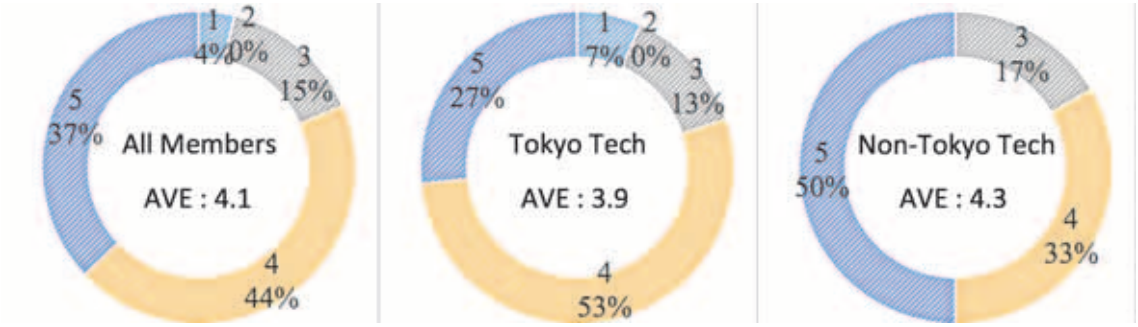

Fig. 4 Evaluation for HGST

✓ I liked how they are keen in making the quality of their products.

FUJITSU

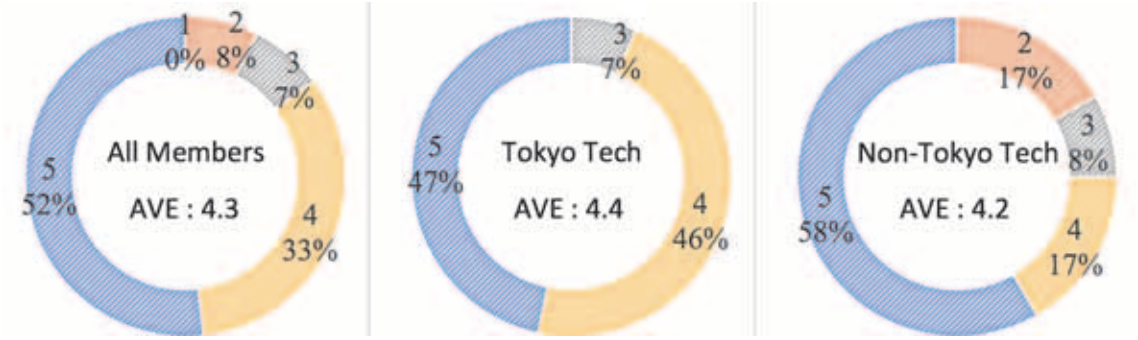

Fig. 5 Evaluation for FUJITSU

✓ They presented management innovation system which is significant not just for engineers but also for business management.

MDC

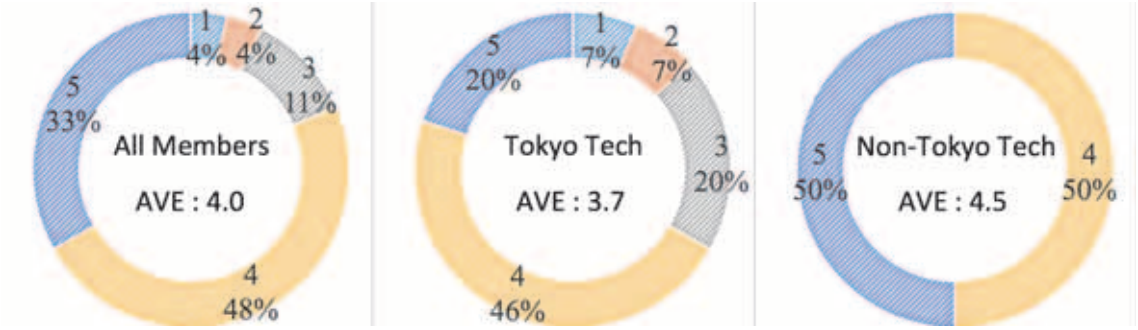

Fig. 6 Evaluation for MDC

✓ It is about primarily with my major, Civil Engineering

JICA

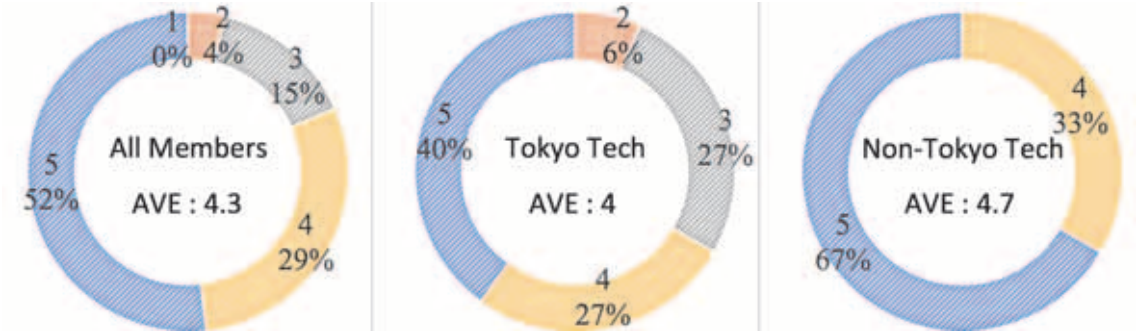

Fig. 7 Evaluation for JICA

- ✓ I now can understand more about the way a social organization effects a society.
- ✓ I learned how Japan helps my country and the world.

EPSON

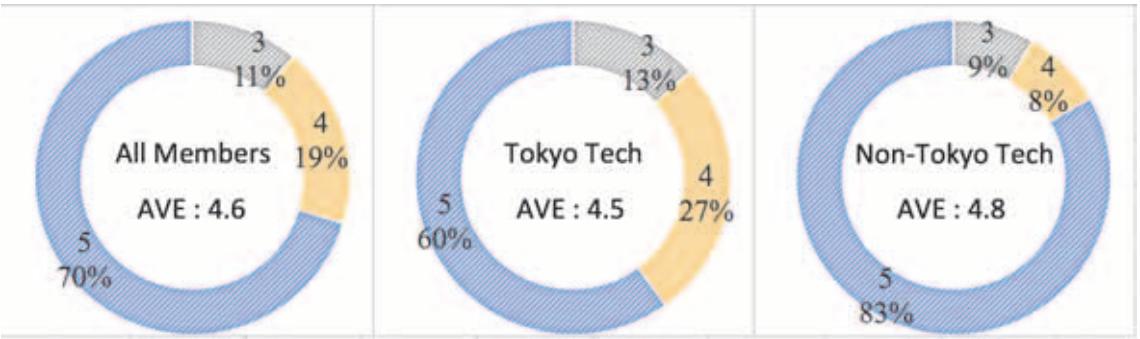

Fig. 8 Evaluation for EPSON

- ✓ It had very modern and innovative technology.
- ✓ Separating by language was highly efficient and made it easier to understand.

DOST

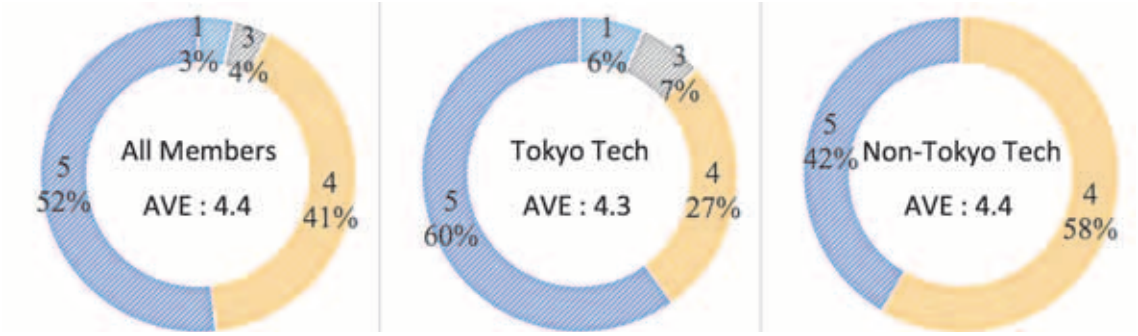

Fig. 9 Evaluation for DOST

- ✓ I appreciated their efforts to advance the Science and Technology in the country.

TOYOTA

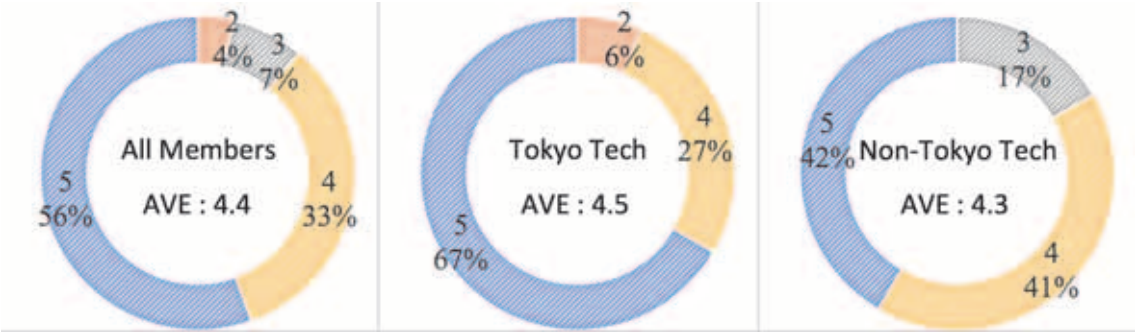

Fig. 10 Evaluation for TOYOTA

- ✓ I was glad to go to the "No.1" company in Philippines.
- ✓ I could see a highly sophisticated flow of manufacturing that is designed to seek efficiency and correctness.

ADB

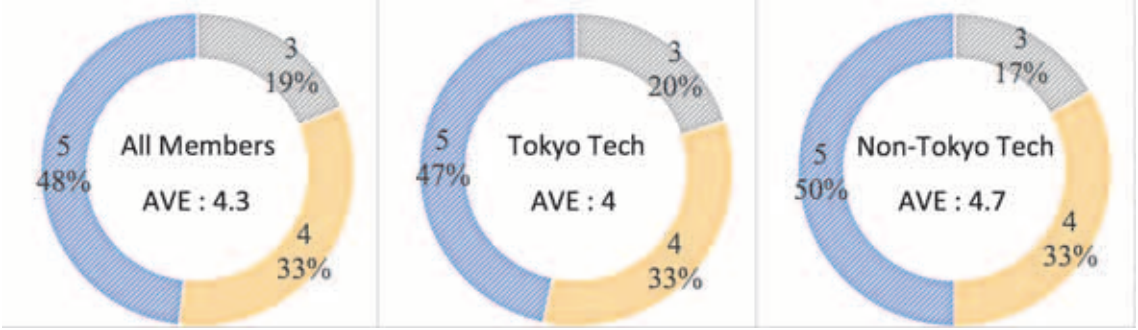

Fig. 11 Evaluation for ADB

- ✓ Incorporating engineering, innovation and sustainability with finance was interesting and timely especially for the participating future professionals.
- ✓ I could learn a situation of financial and technical aids.

Q2. Please choose the best 3 programs from your viewpoint within technical visits.

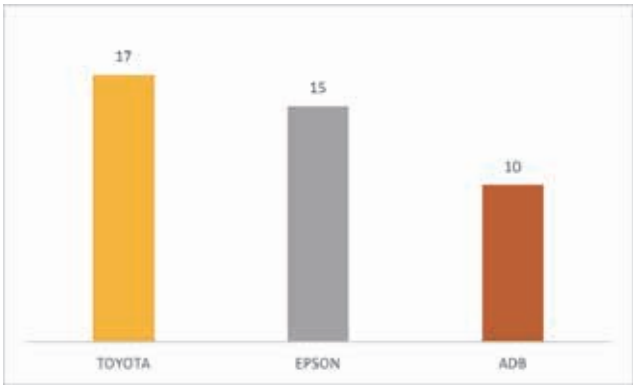

Fig. 12 Best 3 programs in technical visits

[Section C] Evaluation for "Discussion and Presentation"

Q1. What did you think about discussion and presentation? (1: Not satisfied at all, 5: satisfied very much)

Method

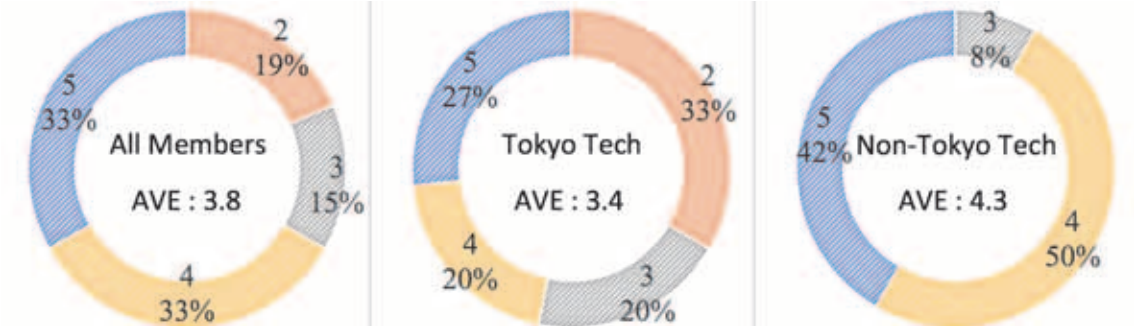

Fig. 13 Evaluation for Method of discussion and presentation

Positive Comments

- ✓ It offered me a chance to work with other foreign student and know each other.
- ✓ I could see an aspect of members which cannot be seen in daily life.
- ✓ These three steps were helpful to make informative and interesting reports.
- ✓ We were able to have a very productive exchange of opinions and ideas.
- ✓ Our teammates got into the problem really deeply.
- ✓ It was good to discuss so many different things and ideas with my group.
- ✓ Each group were given the liberty to choose the topic.
- ✓ We were given enough time to share their thoughts about it.

Negative Comments

- ✓ It does not need.
- ✓ The discussions were conducted when we were tired of the factory tour.
- ✓ It's better to have some guidelines about what should be discussed in the topics.
- ✓ The difficulty for me is majority my team was Japanese.
- ✓ Most of topics were not concerned with technology.
- ✓ It would be better if the final presentation is more formal
- ✓ Please give us some awards!!!
- ✓ Japanese students don't have enough discussing skill in English.
- ✓ We should discuss things rather than stay in laptops and work individually.
- ✓ We couldn't have enough discussion because Non Tokyo Tech students are free.
- ✓ We have to distribute tasks more properly to every member.
- ✓ Sometimes it is hard to sharing our thought.
- ✓ I couldn't join final presentation.

Time for discussion

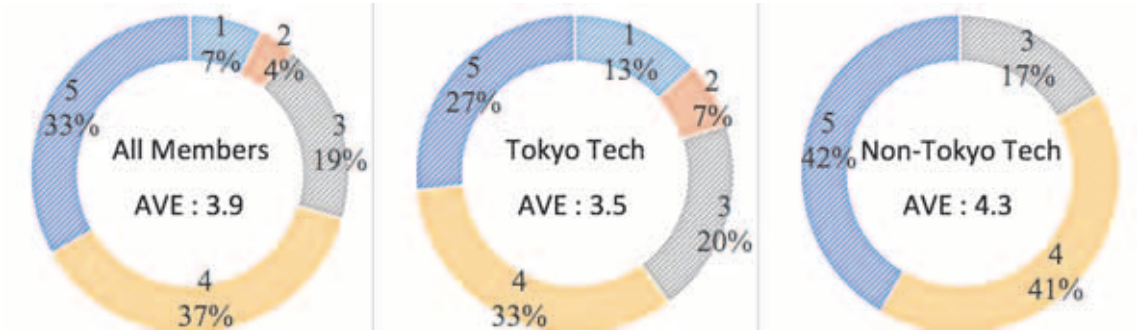

Fig. 14 Evaluation for Discussion time

Positive Comments

- ✓ It's okay for me to do 30 minutes of discussion every day. It was so efficient.
- ✓ Good enough.

Negative Comments

- ✓ It was not enough.
- ✓ We gathered a lot of time after last meeting at meeting room.
- ✓ The discussions were conducted when we were tired of the company visits.

Number of members in each group

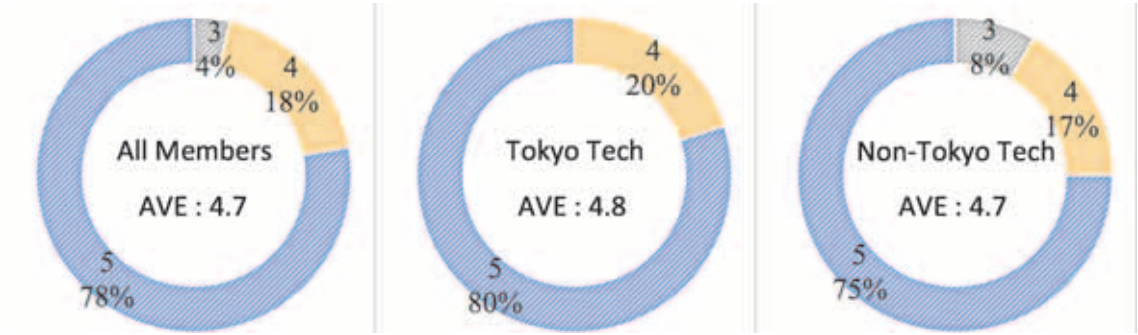

Fig. 15 Evaluation for Number of members

Positive Comments

- ✓ It's fine.
- ✓ Everyone did their part and contributed to the parts assigned to other people.
- ✓ The diversity is good having students from different countries collaborate.
- ✓ I could say my opinion easily and could listen to other members' opinion.

Negative Comments

- ✓ Mostly we discussed only 3 of 5 persons.

Time for preparation

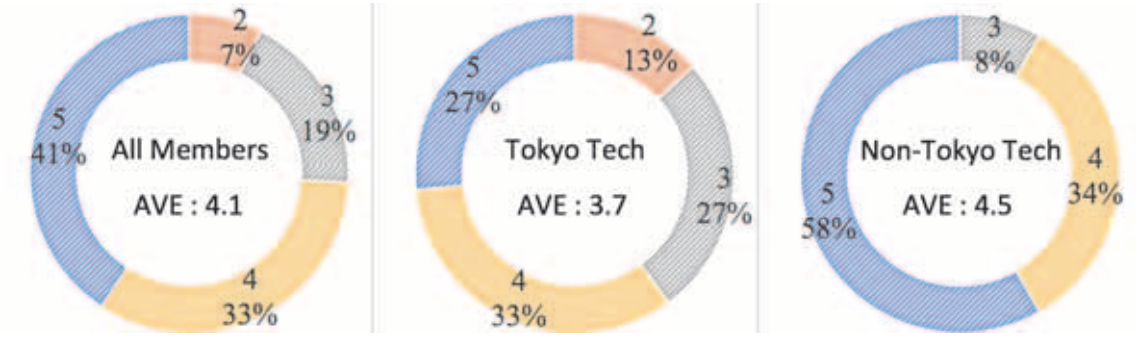

Fig. 16 Evaluation for Preparation time

Positive Comments

- ✓ The time for preparation was good enough and efficient.
- ✓ It was perfect.

Negative Comments

- ✓ We had to prepare in other time.
- ✓ We need more time

Q2. What did you learn throughout discussion with members?

About International Communication

- ✓ Difficulty of discussing with foreigner
- ✓ International students' positive attitude to politic
- ✓ About raising awareness and mutual understanding
- ✓ Discussing with many kinds of people is important for us.
- ✓ Situation at other countries and their viewpoints
- ✓ How international collaboration could make the world a better place in the future.
- ✓ How developed or setback one country is from another.
- ✓ Most of us were not aware about the current situation of other countries.

About how to discuss

- ✓ Importance to talk with each other even if not good at speaking
- ✓ More people, more idea.
- ✓ We need a leader who distribute tasks properly.
- ✓ To patiently understand the ideas from each member.
- ✓ I learnt how to have proper discussion with student from other countries.
- ✓ Knowing other's advantage and disadvantage is very important things.
- ✓ I can join in the discussion by saying my opinion in loud voice.
- ✓ Data gathering, giving ideas, and making our presentations.
- ✓ I learned the importance of being open minded and interactive.
- ✓ Discussing was fun.

Others

- ✓ Japanese get high salary.
- ✓ Japanese had better practice English in speaking and pronunciation.
- ✓ We have to improve ourselves in aspect of liberal arts adding engineering.
- ✓ Team Work and Respect.

Summary

We tackled group activity hardly. It made us to feel time was not enough. At the same time, we learned a lot of things through the corporation toward the presentation. These are not only how to work in the group, but also mutual understanding between coutries.

[Section D] Evaluation for program in Japan (only for Tokyo Tech students)

Q. Please grade each part of the program in Japan

(1: Not satisfied at all, 5: satisfied very much)

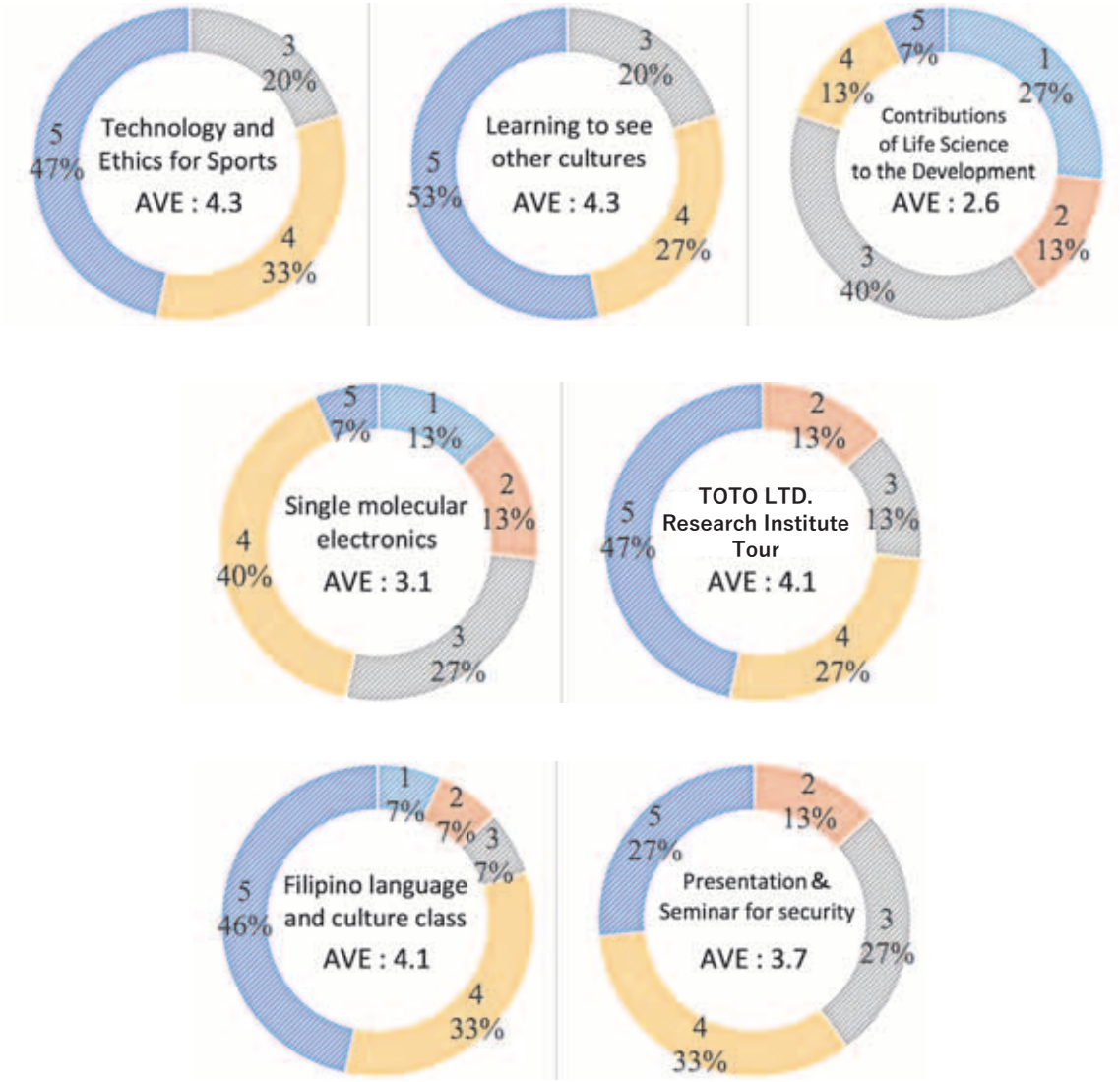

Fig. 17 Evaluation for programs in Japan

Summary

We had a valuable chance to learn current technology from various field and discuss in English. We were sometimes not totally satisfied, that's because the topics were not concerned with the AYSEAS 2017 although they were still helpful for us.

[Section E] Present state in your university (only for non-Tokyo Tech students)

Q1. When and how did you know about Tokyo Tech-AYSEAS first?

UI	International office newsletter
ITB	International Relation Office ITB
UPD	College's Facebook page
DLSU	Past participant, Organization, Tokyo Tech Website, Professor and Facebook
HCMUT	Information board of the university

Q2. What kind of Tokyo Tech-AYSEAS advertisement was displayed in your university?

UI	Newsletter
ITB	Poster, Facebook, Information session, and Announcement
UPD	Facebook
DLSU	Website, Poster, Tokyo Tech office, and Facebook
HCMUT	Facebook

Q3. Was there any interview test in your university?

UI	Yes
ITB	No (only document selection)
UPD	No
DLSU	No
HCMUT	Just a meeting

Q4. When was the first time to meet with your university members?

UI	Only participants
ITB	At NAIA
UPD	At 1st day of the program
DLSU	At 1st day of the program or A week before the program
HCMUT	Only participants

Q5. Were there any preparatory study sessions in your university?

UI	No
ITB	No
UPD	No
DLSU	No
HCMUT	No

Q6. Any suggestions, ideas, and comments to improve future application process?

- ✓ To have standardized study preparation for every University involved
- ✓ To add preparation session like in Tokyo Tech
- ✓ To check the English capabilities of each participants
- ✓ More advertisements to attract more participants
- ✓ To conduct official orientations about the program
- ✓ None

[Section F] Your opinion for future Tokyo Tech-AYSEAS

Q1. What kind of program do you want to join?

- ✓ Like AYSEAS (7)
- ✓ Exchange Program (3)
- ✓ It includes lectures and discussion. (3)
- ✓ Cultural Exchange (3)
- ✓ Visiting more various companies and places (3)
- ✓ Exciting program (3)
- ✓ It has more enjoyable holiday.
- ✓ Visiting the place where JICA operate (not headquarter)
- ✓ YSEP Tokyo-Tech
- ✓ Participants are more international
- ✓ Leadership program

Q2. Which country should we visit in the nest time?

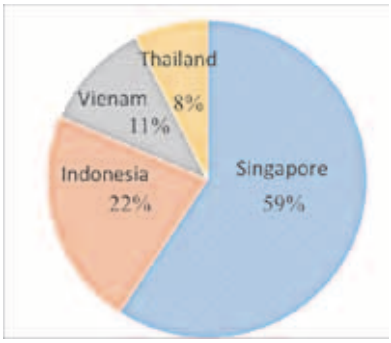

Fig. 18 Next visiting country

Q3. What did you think the number of days for Tokyo Tech-AYSEAS2017?

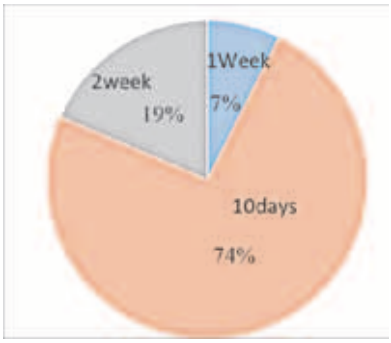

Fig. 19 Proper length of the program

Q4. What kind of discussion topic do you want to suggest for the future Tokyo Tech-AYSEAS?

- ✓ IoT
- ✓ Science
- ✓ Digitalization
- ✓ Environmental sustainability
- ✓ Urbanization
- ✓ Disaster risk Reduction
- ✓ Humanity
- ✓ Business
- ✓ Life science
- ✓ Network environment
- ✓ Garbage problem
- ✓ Politics
- ✓ Economic
- ✓ Nuclear Power
- ✓ Ambitions of young people
- ✓ Economic relationship of Asian Countries
- ✓ Possibility of ASEAN countries' growth with new technology
- ✓ The effect of English communication to global competitiveness
- ✓ Involvement of youth to technology transfer
- ✓ The effect of international study programs to technology transfer
- ✓ The topic which we can compare with each country's situation
- ✓ The topic which connects technology and society
- ✓ More specific and detailed topic

Q5. Your suggestions, ideas, and comments for future programs(Abstract)

About Itinerary

- ✓ You should visit only one company in a day.
- ✓ Not only seeing the industry but getting lecturers from expertise in that industry.
- ✓ We need activities which are not visiting or discussion.
- ✓ Learning the history of the host country is important to know about the culture
- ✓ Visit a community, preferably the poor people
- ✓ The five-days exposure tour was very tiring.
- ✓ Cultural exchange should be held in first or middle of the program
- ✓ I think we can have more free time on weekend schedules.
- ✓ Ask opinions from the local participants regarding the weekend activities.
- ✓ You should arrange the schedule to the good weather season.
- ✓ The program could start on august.

About Participants

- ✓ Encourage participants to avoid speaking in their native language
- ✓ The rate of Tokyo tech student was too big.
- ✓ Participants should come from more countries.
- ✓ More participants
- ✓ More foreign students in Tokyo-tech

Others

- ✓ I think making more time to make friendship is good.
- ✓ More time to engage with the culture, shorter time to factory visits.
- ✓ Let's hold in Tokyo, Japan next time!!!
- ✓ Invite panel members.
- ✓ More useful preparatory program is needed.

Q6. Your suggestions, ideas, and comments for all of Tokyo Tech-AYSEAS. (Abstract)

Negative Comments

- ✓ Just because of traffic, the program was held very well!
- ✓ Moving time was too long
- ✓ Some of the itinerary were not that fun.
- ✓ There are lots of more beautiful destinations in the country.

Positive Comments

- ✓ The factory tours and the schedule arrangement is well arranged!
- ✓ Company visits are very good.
- ✓ I got so many insights especially when met the Board of Directors of every company

- ✓ I, a Filipino, was able to see Manila on a different light.
- ✓ I think that the program of Tokyo Tech-AYSEAS was very interesting and helpful.
- ✓ I really enjoy this program, Thank you so much.
- ✓ This program provides us a wonderful time.
- ✓ I enjoyed the whole program!

Conclusion

We have a lot of opinions and suggestions for future program because we extremely love AYSEAS 2017. We hope this program will last with growth.

Throughout this program, we had valuable time in our life, as a future global leaders.

We realized how important and difficult to understand each other. It was sometimes language, sometimes cultural difference, and sometimes various personalities which interfered with our communication. However, when we overcame these hardship, we truly understood each other. We created a special collaboration which was much better than giving by ourselves. We also noticed that international corporation has a great potential to make the world better.

At the same time, we recognized what we have to do in order to be global leaders. We need to improve our communication skills including language and taking care of others whose background are different. We also need to have interests each other. We are in ASEAN however we don't understand other cultures at all. It is necessary to accept others to get corporation.

At the end of this section, I would like to appreciate all participants, teachers, faculties, companies and everyone involved in AYSEAS 2017. I hope this evaluation will help our fellows, future global leaders.

Love you all, and see you soon as global leaders.

Edited by Mia

ASEAN

ESTABLISHMENT

The Association of Southeast Asian Nations, or ASEAN, was established on 8 August 1967 in Bangkok, Thailand, with the signing of the ASEAN declaration (Bangkok Declaration) by the Founding Fathers of ASEAN, namely Indonesia, Malaysia, Philippines, Singapore and Thailand.
Brunei Darussalam then joined on 7 January 1984, Viet Nam on 28 July 1995, Lao PDR and Myanmar on 23 July 1997, and Cambodia on 30 April 1999, making up what is today the ten Member States of ASEAN.

Fig.1 ASEAN flag

Fig.2 ASEAN member countries

AIMS AND PURPOSES

As set out in the ASEAN Declaration, the aims and purposes of ASEAN are:

1. To accelerate the economic growth, social progress and cultural development in the region through joint endeavours in the spirit of equality and partnership in order to strengthen the foundation for a prosperous and peaceful community of Southeast Asian Nations;
2. To promote regional peace and stability through abiding respect for justice and the rule of law in the relationship among countries of the region and adherence to the principles of the United Nations Charter;
3. To promote active collaboration and mutual assistance on matters of common interest in the economic, social, cultural, technical, scientific and administrative fields;
4. To provide assistance to each other in the form of training and research facilities in the educational, professional, technical and administrative spheres;
5. To collaborate more effectively for the greater utilization of their agriculture and industries, the expansion of their trade, including the study of the problems of international commodity trade, the improvement of their transportation and communications facilities and the raising of the living standards of their peoples;
6. To promote Southeast Asian studies; and
7. To maintain close and beneficial cooperation with existing international and regional organizations with similar aims and purposes, and explore all avenues for even closer cooperation among themselves.

Reference

・ASEAN（http://asean.org/）

The Philippines

Overview

More than 7,000 islands make up the Philippines, but the bulk of its fast-growing population lives on just 11 of them.
Much of the country is mountainous and prone to earthquakes and eruptions from around 20 active volcanoes. It is often buffeted by typhoons and other storms.
The Philippines - a Spanish colony for more than three centuries and named after a 16th century Spanish king - was taken over by the US in the early 20th century after a protracted rebellion against rule from Madrid.
Spanish and US influences remain strong, especially in terms of language, religion and government. Self-rule in 1935 was followed by full independence in 1946 under a US-style constitution.
The US is a close ally and has provided military aid to help combat Muslim and communist insurgencies.


Fig.3 Flag of the Philippines

Economy

The Philippines's GDP growth accelerated from 5.9% in 2015 to 6.8% in 2016.Private consumption, providing nearly 70% of the Philippines' GDP, grew by 6.9% in 2016 over 6.3% in 2015.The Philippines' GDP growth is seen to moderate to 6.5% in 2017 but recover to 6.7% in 2018.
Buoyant domestic demand drove economic growth up to 6.8% in 2016. Growth will moderate somewhat but still be strong at 6.5% this year and 6.7% next. Inflation is forecast to pick up, and the current account will continue to post a small surplus. Making growth more inclusive will require the effective implementation of the country's development plan for 2017–2022.

Figure4　GDP growth in Philippine

2017-2019 will focus on 4 interrelated priority areas. They are sustainable infrastructure, good governance and finance, inclusive employment and education and regional integration.

Reference

・BBC News（http://www.bbc.com/news/world-asia-15521300）
・ADB（https://www.adb.org/）

List of Participants

	University	Name	Nick name	Sex	Year	Department
1	Tokyo Tech	Kensuke Ichikawa	Ken	M	B3	Electrical and Electronic Engineering
2	Tokyo Tech	Haichen Jiang	Jason	M	B3	Department of International Development Engineering
3	Tokyo Tech	Yuta Shimamura	Yuta	M	B3	Inorganic materials
4	Tokyo Tech	Ayako Tsuchiyama	Ayako	F	B3	Earth and Planetary Sciences/Science
5	Tokyo Tech	Kotomi Noguchi	Kotomi	F	B3	Metallurgical Engineering
6	Tokyo Tech	Misaki Hanamura	Misaki	F	B3	Department of Chemical Science and Engineering
7	Tokyo Tech	Felicia Dea Mulyadi	Dea	F	B3	Department of Chemical Science and Engineering
8	Tokyo Tech	Yuki Yasudome	Yuki	M	B3	Control and Engineering system
9	Tokyo Tech	Mizuki Sato	Mizuki	M	B3	Metallurgical Engineering
10	Tokyo Tech	Rio Takewaki	Rio	M	B4	Metallurgical Engineering
11	Tokyo Tech	Misaki Baba	Mia	F	B4	Electrical and Electronic Engineering
12	Tokyo Tech	Yutaro Fujisawa	Yu	M	B4	Metallurgical Engineering
13	Tokyo Tech	Daichi Yamazaki	Daichi	M	B4	Department of Physics
14	Tokyo Tech	Madoka Miyagawa	Madoka	F	M1	Department of Life Science and Technology
15	Tokyo Tech	Yuto Kowata	Yuto	M	M2	Department of Transdisciplinary Science & Engineering
16	DLSU	Kristine Paula M. Garcia	Tine	F	B4	Gokongwei College of Engineering
17	DLSU	Nicole Clarice T. Cheng	Nicole	F	B3	College of Engineering
18	DLSU	Robby P. Salamanca	Rob	M	B2	Civil Engineering Department
19	DLSU	Carmina Joy Biscocho	Mina	F	B4	Civil Engineering Department
20	DLSU	Victor Joseph Dagdagan	Tor	M	M2	Civil Engineering Department
21	UPD	Jose Angelo A. Hokson	Angero	M	B4	Institute of Civil Engineering

	University	Name	Nick name	Sex	Year	Department
22	UPD	Michael Cardano	Michael	M	B4	College of Engineering
23	ITB	Muhammad Abiyyu	Abi	M	B4	School of Electrical Engineering and Informatics/ Electrical Engineering
24	ITB	Hans Charles Simanjorang	HANS	M	M1	Faculty of Mechanical And Aerospace Engineering / Aerospace Engineering
25	ITB	Muhammad Amin Tahta	Amin	M	B2	Faculty of Mining and Petroleum Engineering / Geophysical Engineering
26	UI	Latifa Ayu Lestari	Latifa	F	B3	Industrial Engineering, Faculty of Engineering
27	HCMUT	Nguyen Dinh An	Joseph	M	B3	Department of Aeronautical Engineering

Faculty members

1	Tokyo Tech	Motomu Nakashima	Professor	M	School of Engineering
2	Tokyo Tech	Hirofumi Hinode	Professor	M	School of Environment and Society
3	Tokyo Tech	Nobuhiro Hayashi	Associate Professor	M	School of Life Science and Technology
4	Tokyo Tech	Chinami Mitsuno	Administrative staff	F	International affairs division
5	Tokyo Tech	Kiyoko Yanagi	Administrative staff	F	International affairs division
6	DLSU	Ronaldo S. Gallardo	Professor	M	Civil Engineering Department
7	DLSU	Susan M. Gallardo	University Fellow	F	
8	DLSU	Ioulany Nayre	Administrative staff	F	Tokyo Tech Philippines Office

Tokyo Tech-AYSEAS 2017:
Tokyo Tech-Asia Young Scientist and Engineer Advanced Study Program 2017

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