SIT Tech Camp in Tokyo, 2018

＜Technological Hub＞

Located in the center of Tokyo, Japan, Shibaura Institute of Technology (SIT) provides you with the opportunity of experiencing one of Japanese Advanced Technologies.
SIT consist of 16 departments in the various academic fields of Engineering and Science.

＜Characteristics＞

Since its establishment, we have kept our Founding Philosophy as follows：
  "Learn from the world, and contribute to the global sustainability."
You will surely be exposed to the experiences and touch the idea of what it is like to be Global Engineers through the experience at Shibaura Institute of Technology.

＜Summer Course＞

Starting from Academic year of 2018, SIT is delighted to offer Summer Courses
  to international students who are interested in the following fields of study such as：
  "Robotics Technology", "Networking Application Development" and "Engineering Ethics."

Network application development on PC, mobile phone, and embedded systems (Program 1)

8 working days
Omiya campus
SIT, Tokyo, Japan

PROGRAM ABSTRACT

This is a collaborative project-based learning program brought for students in computer science and engineering field. Students are supporsed to develop software application on an international team project. The software application should be equipped with wireless communication functions to communicatate among multi-platform devices such as laptop computer, mobile phone, and embedded devices. Participant students should propose and design communication protocols to realize the communication software. Network programming skills to send TCP or UDP packets, such as socket programming, will be also required. Through this PBL program, participant students will be expected to learn the method to develop software application, and also to obtain experience of international team-working and communication.

STUDY SCHEDULE

Day	Course description
1	Introduction to software development Preparation for developing software
2 | 3	Propose communication service with "special functions" Design communication protocols
4 | 7	Development applications on two or more diferrent platforms/devices: PC (Win/Mac), Android smartphone, Raspberry Pi, Arduino
8	Final presentation and demonstration

REQUIREMENTS FOR PARTICIPATING THIS PROGRAM

The students who wish to take part in this program are recommended to have the following knowledge in advance or bring to the class:

- **Basic computer skills including software installing and network configuration.**
- **Programming languages such as C, C++, Java, and Python.**
- **Network programming using socket programming is desired.**
- **The students are expected to bring your own laptop.**

PROGRAM INFORMATION

Study field	Computer science Information communication technology
Expected students	2nd-year or higher in undergraduate
Program duration	July 30 to August 8 (8 working days) ※This period does not include the travel days. Basically, Saturday and Sunday will be day-off during the program.
Participation fee	50,000 yen (Program fee) ※The fees above does not include your air ticket, accomodation, transportation, or other living expenses during your stay in Japan
Number of students	20(Max) - 10(Min)
Professors in charge	Prof. Takumi Miyoshi (Department of Electronic Information Systems) Prof. Hiroaki Fukuda (Department of Information Science and Engineering)

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Line tracing by 6-legged robot (Program 2)

ROBOT

10 working days
Toyosu Campus
SIT, Tokyo, Japan

PROGRAM ABSTRACT

Robots are one of the most promising technologies in the declining birthrate and aging society in Japan. Additionally, robots are also a fusion of various disciplines.

In this program, a 6-legged robot is manufactured by all students and line tracing is carried out. In this process, The students can learn a series of technologies related to robots, mechanisms, electric circuits and programming. The students will be motivated to deepen their studies or research.

Also, during the period, the students can visit the related laboratories inside and outside the university and learn robots widely.

STUDY SCHEDULE

Day	Course description
1	Introduction of robotics and ice breaking
2, 3	Manufacturing of 6-leggged robot Lab tour in SIT
4, 5, 6	Manufacturing of electric circit of the robot/ Interrim presentation
7, 8	Programming of line tracing Lab tour in the other Univ
9, 10	Trial and final presentation

REQUIREMENTS FOR PARTICIPATING THIS PROGRAM

The students who take this program are recommended to have the following knowledge in advance or bring to the class:

· **Basic knowledge of robotics (mechanics, electronics, mechatronics, and programming)**

· **Experience of making basic electrical circuit and soldering**

PROGRAM INFORMATION

Study field	Robotics and Related Subjects
Expected students	2nd-year or higher in undergraduate
Program duration	July 31 to August 11 (10 working days) ※This period does not include the travel days. Basically, Saturday and Sunday will be day-off during the program.
Participation Fee	110,000yen (Program and Accomodation fee) ※The fees above does not include your air ticket, transportation, or other living expenses during your stay in Japan
Number of students	12 (Max) - 4 (Min)
Professor in charge	Prof. Nobuto Matsuhira (Department of Engineering Science and Mechanics)

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Engineering Ethics (Program 3)

SOCIETY
DISASTER

7 working days
Toyosu Campus
SIT, Tokyo, Japan

PROGRAM ABSTRACT

In this program, students learn the following topics:

-Background and History of Engineering Ethics
-Code of Conduct for Engineering
-Preventive Ethics
-Aspirational Ethics
-Case Studies

Participants can learn how the discipline of Engineering Ethics are implemented in Japanese Industries through factroy visits, which are reviewed in the Workshops. Participants discuss each topic with other participants from all over the world. Finally, they will output their thoughts and experiences in the Final Presentation held at the last day of the program.
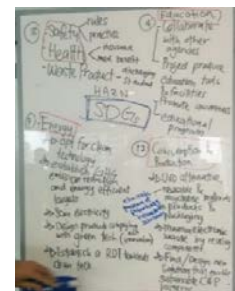
STUDY SCHEDULE

Day	Course description
1	Introduction Background and History Industrial Visit
2 | 3	Code of Conduct Preventive Ethics Workshop 1
4 | 5	Case Studies Whistle Blowing Survey in the city
6	Aspirational Ethics Sustainable Development Goals Workshop 2
7	Final Presentation Conclusion

REQUIREMENTS FOR PARTICIPATING THIS PROGRAM

· **The students have to be an Independent User of English and are recommended to have English skill to be able to understand the course taught in English.**

· **Acquisition of basic skills for discussion and presentation is highly recommended.**

· **Bringing their own laptops is recommended for creation of supportive materials for final presentation.**

PROGRAM INFORMATION

Study field	General Subject
Expected students	University students who learn Engineering
Program duration	June 21 to June 29 (7 working days) ※This period does not include the travel days. Basically, Saturday and Sunday will be day-off during the program.
Participation Fee	50,000 yen ※The fees above does not include your air ticket, accomodation, transportation, or other living expenses during your stay in Japan
Number of students	30(Max) - 12(Min)
Professor in charge	Prof. Masahiko Tachibana (Center for Promotion of Educational Innovation)

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