芝浦工業大學 SHIBAURA INSTITUTE OF TECHNOLOGY

2019yearOthers (Inbound)Performance report

Embedded Control Systems

Implementation period	Implementing country	SIT's implementation partner organization	Target students	participant	SIT instructor
2019/07/31 ～2019/08/07	Japan	–	・Department of Electronic Information Systems、Department of Machinery and Control Systems、Department of Bioscience and Engineering ・Undergraduate 2nd grade	(SIT) Students 22, TA 7, Professor 5, Staff 1	KAWAKAMI Yukio(Department of Machinery and Control Systems)、ITO Kazuhisa(Department of Machinery and Control Systems)、IIZUKA Kojiro(Department of Machinery and Control Systems)、HANAFUSA Akihiko(Department of Bioscience & Engineering)、WATANABE Nobuo(Department of Bioscience & Engineering)

Image1

Embedded Control System is an important basic technology that leads to IoT, AI automatic control, etc. In this program, the lectures that deal with the basic items of Embedded Control System were conducted in with practical training. Students learned about development of embedded programs by using of MATLAB/SIMULINK and the Rensselaer mechatronics kit (https://homepages.rpi.edu/~hurstj2/).
Participants were 11 students from the Faculty of Systems Science and Engineering and 7 international students. We recruited international students from overseas affiliated universities in the summer program of the International Programs Initiative Section, but there were no participants from here. In the next year, some measures will be required for recruiting international students.
In the first half of the program, we learned the basics about digital circuits and control systems. In the second half, the participants were divided into 7 teams of Japanese and international students, and each team developed a running program with a line tracer and competed for the running time for the subject course. In the final presentation before the competition, the outline of the developed program was explained, and the points of excellence, ingenuity, originality, and winning of the competition were reported. In the competition, each team did their best and got satisfactory results.

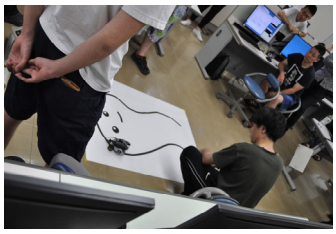

Image2

Image3

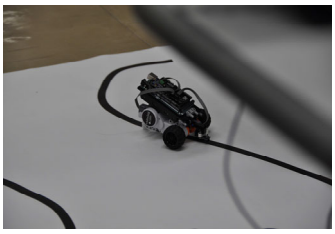

Image4