



PBL program about electronic engineering between KMUTT and SIT

Department of Electronic engineering,
Shibaura Institute of Technology

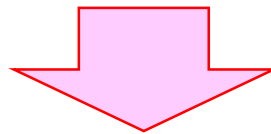
Department of Electronics and Telecommunications
Engineering,
King Mongkut's University of Technology Thonburi



Expectation of the PBL

To gain the experience of the cooperation with foreign students through the PBL

To broaden the sight to innovate new engineering field



To enhance the educational effect, our department considers the connectivity of the curriculum flow with the global PBL.

Curriculum to the PBL



Our electronic engineering department prepares the following lab experiments and practice.

To learn the fundamental knowledge and skill

Introduction to Electronic Engineering Course
(1st semester, 1st year)

Chemical Laboratory
(2nd semester, 1st year)

Physics Laboratory
(1st semester, 2nd year)

To foster the discussion ability and cooperated work

Basic electronic engineering practice
(1st semester, 2nd year)

Basic electronic engineering experiment
(2nd semester, 2nd year)

Electronic engineering course experiment 1
(1st semester, 3rd year)

Electronic engineering course experiment 2
(2nd semester, 3rd year)

PBL program with foreign students

Sending programs in Electronic engineering department, SIT



Priority year	Country	University	Number of students
2nd year	Sri Lanka	University of Moratuwa	15 + 10
2nd year	Sri Lanka	Sabaragamuwa University, Wayamba University	10 + 10
2nd year	Vietnam	Hanoi University of Science and Technology	30 + 30 (Collaboration with Dept. of Electrical eng. and Information eng.)
3rd year	U.S.	California state university, East bay	10 + 10 (Collaboration with Dept. of Information eng.)
3rd year	Thailand	KMUTT	10 + 10



Accepting programs

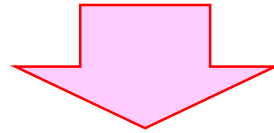
Priority grade	Country	University
2nd year	Sri Lanka	University of Moratuwa
2nd year	Sri Lanka	Sabaragamuwa University, Wayamba University
2nd year	Vietnam	Hanoi University of Science and Technology (Collaboration with Dept. of Electrical eng.)
3rd year	Thailand	KMUTT

Since the beginning of our PBL program with KMUTT, the students need to attend both sending and accepting program.

Overview of the PBL(1)



The students aim to complete the system related to the keywords, "**microcomputer, sensor, control, communication, sound, bio-signal, light**"



We expect the students to cooperate more tightly and to communicate each other more frequently in order to determine their goal.

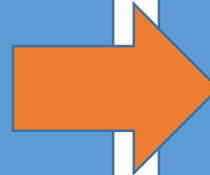
Overview of the PBL(2)



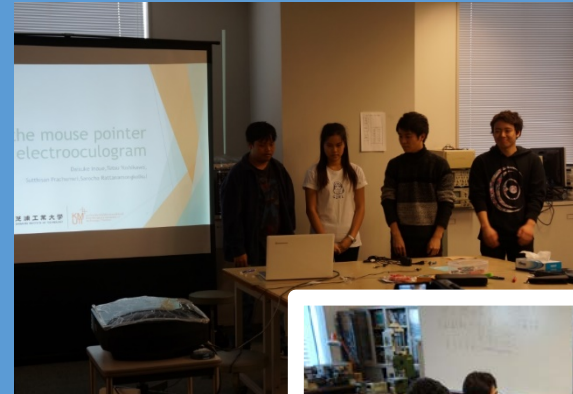
3rd year 10 students from KMUTT

3rd year 10 students from SIT

11days at KMUTT



11days at SIT



The program schedule(1)



April	Announcement of the PBL in SIT and selection of the member from SIT
June	Announcement of the PBL in KMUTT and selection of the member from KMUTT
August	Submission of the project PLAN from SIT and KMUTT
	Students discuss each other by LINE or e-mail and determine the pair after reading the project PLAN

The program schedule(2)



September	PBL program in KMUTT Determination of the goal and schedule of the project in each team
October - November	Proceeding the project at each university
December	PBL program in SIT Completion of the project and presentation in each team

The goals of this year PBL



The hints of the project goal are suggested by Takamisawa Cybernetics Corporation to increase the student's motivation.

Project titles in this time

Identification of coins and calculate total coins

Recognize a coin by "Sounds"

The development of identification sensor

Removing some bugs and dirt from light sensor

Identify coins by detecting differences in sound vibrations



Supported professors

SIT: Profs. Yokoi, Kanoh and Koike
and other professors in electronic engineering
professors.

KMUTT: Profs. Rardchawadee Silapunt,
Kamon Jirasereeamorn,
Auapong Yaicharoen

Great thanks to

Global international section staff

Profs. Inoue, Hasegawa, Mano, Yamazaki and Furukawa



Beyond the PBL

This year, we give the lecture in the partner university.

From KMUTT, Prof.Silapunt gives a lecture to our 3rd year students.



From SIT, Profs.Yokoi, Kanoh and I gave lectures to 3rd and graduated ENE, KMUTT students.



And also Profs.Ueno and Ishikawa gave lectures to ENE, KMUTT students.





After the graduation of the students related to the PBL

By talking the experience of the PBL, The teaching assistant in the first time got in the company that advances to Thailand.

We expect to increase the case like this in the cooperation with the GTI consortium members.

