

Cross-culture Engineering Project (CEP)@KMUTT

Date	Place	Partner Organization	Students' Major and Grade	Participants' Information	SIT Instructor
2025/01/31 ~2025/02/07	Thailand	King Mongkut's University of Technology Thonburi	Systems Engineering and Science, Global Course of Engineering and Science, Regional Environment Systems, Functional Control Systems, Department of Electronic Information Systems, Department of Machinery and Control Systems, Department of Planning, Architecture and Environmental Systems, Department of Bioscience and Engineering, Department of Mathematical Sciences  Undergraduate 3rd~4th grade, Master 1st~2nd grade, Doctor 1st ~3rd grade	(SIT) Students 17, Student Staff 2, Professor 3  (King Mongkut's University of Technology Thonburi) Students 34, Student Staff 4, Professor 4, Staff 1	HASEGAWA Hiroshi (Department of Machinery and Control Systems),  MANO Kazunori (Department of Electronic Information Systems),  MURAKAMI Keyoko (Electrical and Electronic Engineering Advanced Electronic Engineering)



1st place project team

The Cross-culture Engineering Project (CEP) as a global PBL course in the College of Systems Engineering and Science and the Systems Engineering and Science of the Graduate School is conducted in three regions: Bangkok, Thailand; Omiya, Japan; and Lisbon, Portugal. The main targets of each project are global, global-industrial-community collaboration, and innovation creation. CEP@KMUTT was targeted at global projects, with the following nine projects carried out. This year, projects were carried out mainly against the backdrop of an aging society.

- (1) The role of urban environment in aging society
- (2) In-demand jobs availability in aging society
- (3) Innovation for elderly users
- (4) Sustainable solution for low birth rate crisis
- (5) Tourism & healthy aging society
- (6) Smart healthcare preparation for elderly people
- (7) Product development towards aging society 1 (Doro sauce)
- (8) Product development towards aging society 2 (Doro sauce)
- (9) Application of artificial intelligence (AI) in aging society

This CEP starts with the exploration of a problem, and then proposes a solution through problem setting, solution derivation, and prototyping based on systems thinking in systems engineering. This year, the teams that prototyped their products won 1st and 2nd place. The 1st place project is "Innovation for elderly users". A 3D hologram was developed to provide a sense of travel to an elderly person who had difficulty traveling.



Final Presentation



Group photo1



Project Work



Project Work2