

Capstone Design Project Presentation

The International Conference on Innovative Engineering Education 2025

organized by the Council of Engineers, Thailand (COET)

The Council of Engineers, Thailand (COET), will host **the International Conference on Innovative Engineering Education 2025 on 12 September 2025, from 08:30 to 17:00, at the COET Headquarters.** The conference aims to promote the exchange of knowledge and best practices in engineering education, and to support the presentation of Capstone Design Projects that reflect the application of engineering knowledge and the ability to solve complex engineering problems. The initiative is intended to enhance the quality of teaching and learning in both domestic and international institutions in alignment with Outcome-Based Education (OBE) principles.

1. Objectives of the Capstone Design Project Competition

- 1) To promote the principles of Outcome-Based Education (OBE) and encourage outcome-based assessment approaches.
- 2) To enhance students' abilities to solve Complex Engineering Problems (CEP).
- 3) To provide an international platform for students—both from Thailand and abroad—to showcase projects that demonstrate the application of knowledge and the resolution of complex engineering challenges.
- 4) To foster students' potential and prepare them to become globally competent engineers.

2. Target Participants

- 1) Undergraduate or recently graduated students from engineering programs accredited by the Thai Accreditation Board of Engineering Education (TABEE).
- 2) Undergraduate students or recent graduates from engineering programs accredited by internationally recognized engineering accreditation bodies.

3. Project Timeline

	Activities	Schedule
1)	Application Period	1 – 31 August 2025
2)	Announcement of Selected Teams	5 September 2025
3)	Project Presentation & Awarding	12 September 2025

Remarks:

1. Selected projects will receive a certificate of recognition and a commemorative token. The awarded projects will also be publicized through the Council of Engineers' national and international communication channels.
2. The Council of Engineers will provide financial support for travel expenses related to the presentation of selected projects at the Council's headquarters, in accordance with the Council's regulations.

4. Required Documents

Interested participants may submit documents and supporting media in either Thai or English in electronic format, as follows:

- A Summary Report (no more than 2 pages)
- A Project Introduction Video (maximum length: 30 minutes)
- A Promotional Poster in A1 size (optional; one sheet)
- All documents and media must be submitted via the QR Code provided below



5. Capstone Design Project Presentation

Three selected teams will be invited to present their projects at the conference, with each team allotted 15 minutes for the presentation followed by feedback from a panel of experts. The Council of Engineers will provide travel support for the selected teams to present their projects at the Council of Engineers' headquarters, as determined by the Council. Kindly note that project presentations by international student teams shall be conducted in an online format only.

6. Outcome-Based Assessment Criteria

A panel of qualified experts will review and select three teams to present their projects at the International Conference 2025. The selection will be based on the following criteria:

No.	Evaluation Category	Description	Score
1	Complexity of the Engineering Problem	<ul style="list-style-type: none">● Clearly identifies the engineering problem● Demonstrates complexity at the level of a Complex Engineering Problem (CEP) as defined by the Washington Accord, e.g., multidisciplinary integration, uncertainty, or economic/environmental constraints● Highlights engineering analysis challenges at an advanced level	20
2	Engineering Design Process	<ul style="list-style-type: none">● Presents a systematic design process: problem definition, alternative analysis, prototyping, testing, and refinement● Utilizes appropriate engineering tools/methods (e.g., Simulation, CAD, FMEA)● Accurately applies engineering principles	20

No.	Evaluation Category	Description	Score
3	Innovation and Creativity	<ul style="list-style-type: none"> Proposes novel ideas or uniquely applies existing technologies Demonstrates creativity and out-of-the-box thinking in problem-solving Shows potential for further development or real-world application 	15
4	Impact and Sustainability	<ul style="list-style-type: none"> Assesses the project's impact on the economy, society, and environment Aligns with Sustainable Development Goals (SDGs) such as SDG 7, 9, 11, or 13 Efficient use of resources or long-term sustainable design 	15
5	Presentation and Supporting Media	<ul style="list-style-type: none"> Communicates content clearly and confidently during the presentation Effectively uses supporting media such as slides, models, videos, or posters Answers judges' questions accurately and concisely 	10
6	Teamwork	<ul style="list-style-type: none"> Demonstrates effective team collaboration Shows evidence of planning, task management, and appropriate role allocation Provides proof of internal communication and shared responsibility 	10
	Total		100

Remarks: 1. The schedule and details are subject to change as deemed appropriate.

2. For further information, please contact the Foreign Affairs Division, Council of Engineers Thailand via email at foreignaffairs@coe.or.th