



Technical Report: AI Horizon – AI Genius Competition x IEM STEM

By

Ir. Dr. Huzein Fahmi Hawari

He is the eETD chairman for 2025/2026 session.



Mr. Lee Jia Jie

He is an eETD committee member (Penang YES representative) for 2025/2026 session.

The Institution of Engineers, Malaysia (IEM), through the Electronic Engineering Technical Division (eETD), in collaboration with the IEM Penang Branch and IEM YES Penang Branch, successfully supported the AI Horizon: AI Genius Competition x IEM STEM, held on 8 August 2025 at SPICE, Penang. The event, jointly organised by Tech Dome Penang, HRD Corp, Penang STEM 4.0, IEM, and other partners, aimed to inspire young engineers and students to explore the role of Artificial Intelligence (AI) in addressing real-world challenges under the theme “Empowering Lives with AI.”



Photo 1: Group photo on stage with 3 winner teams and Penang Tech Dome's PIC

A total of 11 teams registered for the competition, and following the preliminary selection, five teams advanced to the finals to showcase their innovative AI-driven projects. The winners were as follows:

- 1st Place: EnGenius – MYSigAI
- 2nd Place: TGA – Real-Time Smoke and Fire Detection (SmoRe)
- 3rd Place: ESGuardians – Empowering SMEs Towards Net Zero

The competition was evaluated by an expert judging panel comprising Ir. Dr. Huzein Fahmi (Chairman, IEM eETD), Prof. Dr. Yeap Gik Hong (IEM eETD Committee Member), and Mr Tan. Their combined expertise in professional engineering practice, academic research, and industrial application ensured that the projects were assessed with both technical rigour and practical relevance.



Photo 2: The Judging session during the competition.

Judges: Ir. Dr. Huzein (far right), Prof. Dr. Yeap (2nd from Right), Mr. Tan (3rd from right)

From the perspective of IEM eETD, the event also showcased the strong leadership and active involvement of its committee members. In addition to Ir. Dr. Huzein and Prof. Dr. Yeap serving on the judging panel, Ir. Dr. Khor Jeen Ghee (IEM eETD Committee Member and IEM STEM Advisor) and Mr Lee Jia Jie (eETD Committee Member) played pivotal roles in guiding the competition through strategic advice and technical planning. Their contributions collectively underscored eETD's commitment not only to upholding high standards in evaluating innovation but also to mentoring and inspiring young engineers to apply AI technologies responsibly and effectively.

The judging process followed a structured evaluation system based on six key criteria: clarity of the problem, relevance to the theme, creativity and innovation, feasibility of the solution, AI understanding and application, and presentation skills. Each criterion carried a weightage ranging from 10% to 20%, and teams were scored on a scale of 1–10, with the weighted scores determining the final results. This transparent, balanced, and merit-based approach ensured fair recognition of not only technical strength but also creativity, feasibility, and impactful presentation.



Photo 3: Group photo with judges, participants and IEM

Overall, the AI Horizon: AI Genius Competition x IEM STEM was a resounding success, offering a platform for young engineers to showcase impactful AI innovations while strengthening IEM's role in promoting STEM education and future-ready engineering skills. The collaboration highlighted eETD's dedication to advancing professional development, fostering innovation, and supporting the next generation of engineers in Malaysia.