





**DEVELOPMENT**

1. Modern Lab, FTIRMA  
2. Lecturers and teaching engineer from different courses and programs:  
- B. Eng. Tech. Digital Logic Design  
- B. Eng. (Dual Degree) Digital Electronics  
- B. Eng. - Digital Electronics  
- Diploma - Digital Electronics

**PRICE**

RM300

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**COLLABORATORS**

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**PUBLICATIONS**

• Modern Digital Electronics Lab with Raspberry Pi Pico and Smart Integration, Degree thesis, 2025.  
• Modern Digital Electronics Lab with Raspberry Pi Pico and Smart Integration, conference paper (unpublished, waiting for ID approval)

**MARKETABILITY**

- TVET institutions
- Hobbyists
- Micro-credential developers

**POLYCC**  
POLITEKNIK KOLEJ KOMUNITI

**HPTM**  
HAWAIIAN POLYTECHNIC

**Shopee**

55





## [Research](#)

# DEWBoard and EDUNEXA win CITREX 2025 Best of the Best Awards

23 June 2025

GAMBANG, 19 June 2025 – A project titled 'DEWBoard' by a lecturer from the Faculty of Electrical and Electronic Engineering Technology (FTKEE), Universiti Malaysia Pahang Al-Sultan Abdullah (UMPSA), Nurul Wahidah Arshad, won the Best of the Best Award in the staff category at the 15th Creation, Innovation, Technology & Research Exposition (CITREX) 2025.

According to Nurul Wahidah, DEWBoard is a learning kit for the Digital Electronics course, which is a foundational course for all programmes at FTKEE.

“From the lab to the classroom, DEWBoard facilitates hands-on learning activities outside of the lab.

“It is compact, portable, and uses low power.

“DEWBoard only requires a USB power bank as the energy source to power the kit,” she said.



Meanwhile, in the student category, the project ‘EDUNEXA: Digitalising Education – A Revolutionary Learning Management System’, an innovation by Muhammad Amir Mohamed Ali from the Faculty of Computing (FK), emerged as the winner.



The award was presented by the Deputy Vice-Chancellor (Research and Innovation), Professor Ts. Dr. Aida Mustapha, at the Sports Complex Hall, UMPSA Gambang Campus.

Also present were the Deputy Vice-Chancellor (Academic and International Affairs), Professor Dato' Ir. Ts. Dr. Ahmad Ziad Sulaiman and the Registrar, Dato' Saiful Bahri Ahmad Bakarim.

Professor Ts. Dr. Aida expressed appreciation to the participants for their high level of dedication and commitment to making this prestigious annual programme a success.

She said UMPSA continues to make strides in strengthening the culture of research and innovation.

“CITREX is not merely a competition platform but also a strategic avenue to strengthen collaboration between universities, industry, and the community.

“Through CITREX, we not only unearth new ideas but also polish young talents, stimulate creative thinking, and open up opportunities for the commercialisation of innovations that can benefit society,” she added.

She also presented 261 awards to the winners, comprising 74 gold awards, 101 silver awards, 28 bronze awards, and 58 Special Awards.

The event also witnessed outstanding innovative projects from school students in the school category.

Among them, a research project titled 'Bear Detection Device' by a group of students from Sekolah Menengah Kebangsaan Abdul Rahman Talib (SMART) won first place for the UMPSA Press Award for Excellence – Cluster Environment & Biodiversity.



Meanwhile, Sekolah Rendah Tahfiz Negeri Pahang won first place in the category UMPSA Press Award for Excellence – Cluster Smart Technology and System.

CITREX 2025, organised by the Department of Research and Innovation (JP&I) UMPSA, involved a rigorous evaluation process by a panel of professional judges led by the Director of the Centre for Research Strategy and Development, JP&I, Professor CHM Dr. Chong Kwok Feng, with judging criteria covering innovation, impact, commercialisation potential, and market needs.

UMPSA remains committed to making CITREX a catalyst for a sustainable and inclusive innovation culture, in line with the university's aspiration to strengthen the research and innovation ecosystem and to empower human capital towards national sustainability.

CITREX 2025 successfully brought together a total of 283 innovation projects by students, staff, and school students in conjunction with UMPSA Open Day and National TVET Day.

**By: Naqiah Puaad, Centre for Corporate Communications**

**Translation by: Dr. Rozaimi Abu Samah, UMPSA Press**

