Research

UMPSA shines at MTE 2024, won a special award, 2 gold, 5 silver and 1 bronze

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KUALA LUMPUR, 24 February 2024 – Universiti Malaysia Pahang Al-Sultan Abdullah (UMPSA) continued to shine when its researchers won a Special Award, two gold, five silver and one bronze medals at the Malaysia Technology Expo (MTE) 2024.

The three-day MTE 2024 from 22 to 24 February at the World Trade Centre (WTC), Kuala Lumpur aimed to bring together innovative companies, entrepreneurs, investors and innovators to showcase and explore the latest technology trends and solutions.

Researcher from the Faculty of Electrical and Electronic Engineering Technology (FTKEE), Associate Professor Dr. Mohd Mawardi Saari won the Union of Arab Academics award as well as a gold medal for his research titled Fluidized Wireless LED Reactor (Wastewater Treatment and Hydrogen Production).

According to him, the research is related to the construction of photocatalytic reactors that use LEDs as white light sources (photons).



“These LEDs are powered by a wireless power transfer system and move freely within the reactor area to activate the photoreforming process by the photocatalyst.

“This product works by converting DC electricity to AC at high frequencies using an inverter developed specifically for this project.

“This AC electrical energy is then sent to the transmitter coil on the outside of the reactor to uniformly convert electrical energy into magnetic energy within the reactor area,” he said.

He said then through the concept of induction, this magnetic energy is received by the receiving coil and converted back to electrical energy to turn on the LEDs.

“These LEDs then convert electrical energy into light (photons) to activate photocatalysts for the photoreforming process,” he said.

Meanwhile, the gold medal was won through a research titled Semi-Automated ErgoSmart Desk for Patients with Back Pain Problems by a researcher from the Faculty of Mechanical and Automotive Engineering Technology (FTKMA), Associate Professor Ts. Dr. Mohd Azrul Hisham Mohd Adib.

The Semi-Automated ErgoSmart is specially designed to prevent and minimise any back pain problems with tiltable and adjustable table height.

This table provides a good appearance and tendency to help users adjust to the table in providing ergonomic posture.

Collectively, they are able to improve the functionality, usability and effectiveness of the Semi-Automated ErgoSmart Desk for patients with back pain, providing a comprehensive solution for maintaining spinal health and ergonomic comfort at work or the office.
The silver medal was won by Professor Ts. Dr. Md Mustafizur Rahman from FTKMA for the research titled PolyFlex: Flexible, Lightweight and Sustainable Heating while Associate Professor Ts. Dr. Amir Abdul Razak and Dr. Ahmad Fadzil Sharol from FTKMA also won a silver medal for their research on Energy-Efficient Solar Dryer (Agriculture Application).

The research titled SEAPO-Poultry Feed by the researcher from the Faculty of Industrial Science and Technology (FSTI), Dr. Nazikussabah Zaharudin, Mushroom Yield and Growth Booster by Associate Professor Dr. Aizi Nor Mazila Ramli (FSTI) and Jusz Eat: Super Premium Cat Food from Local Aquaculture Source by Ts. Mohd Najib Razali from the Faculty of Chemical and Process Engineering Technology (FTKKP) also won silver medals.
Associate Professor Dr. Nina Suhaity Azmi from FSTI won a bronze medal through her research titled KLEVA-BEADS: Premium Biofertilizer for Sustainable Agriculture.

The UMPSA Vice-Chancellor, Professor Dato’ Ts. Dr. Yuserrie Zainuddin also congratulated all researchers who have won awards and medals in this competition.

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