



ELECTRO MATTERS

July-September 2024

IN THE SPOTLIGHT

A Dive into AI

5th July 2024

On 5th July 2024, from 10 AM to 12.30 PM, Adjunct Professor Ir. Dr. Megat Zuhairy bin Megat Tajuddin (BEM Registrar) delivered an insightful lecture on "Artificial Intelligence and its Applications in Engineering" at DKC. The session, also available live on YouTube, explored the transformative impact of AI in the engineering field.



Autonomous Mobile Robot (AMR) training with Daikin Electronic Devices Malaysia Sdn Bhd (DEDM) staff

17th - 18th July 2024

This training is organized by project members from the School of Electrical Engineering (PKE) on 17th to 18th July 2024, located at the Dream Factory Laboratory, PKE. This Autonomous Mobile Robot (AMR) training involves 10 Daikin Electronic Devices Malaysia Sdn Bhd (DEDM) staff and five lecturers and one PKE student. The theoretical and practical training given to DEDM staff covers the description of AMR hardware and sensor structures, SLAM mapping methods and automatic AMR navigation control.



IN THE SPOTLIGHT



DTEX CyberOps Training Program 2024: Building a Stronger Cybersecurity Community

5th - 9th August 2024

From August 5th to 9th, 2024, UiTM Cisco Academy, in collaboration with Utechtium, hosted the DTEX CyberOps Training Program at the Cisco Lab, School of Electrical Engineering. The five-day program brought together 20 participants, including Cisco instructors and potential future academies, focusing on key cybersecurity operations such as threat detection, risk mitigation, and incident management. Through hands-on sessions and real-world simulations, the program strengthened the skills of participants and fostered a competitive, innovative cybersecurity community aligned with industry needs.

Empowering the Next Generation of Cisco Instructors: CCNAv7 Training Kicks Off at UiTM PKE

12 - 30th August 2024

UiTM PKE has been appointed as a Cisco Instructor Training Centre to conduct the CCNA instructor training through the Cisco Certified Academy Instructor (CCAI) Program. The course aims to train and certify new instructors to support the continuity of Cisco Networking Academies across Malaysia. Open to PKE staff and other Cisco Academy staff nationwide, the program focuses on:

- Providing exposure to the CCNA Professional course content.
- Training participants for CCNA certification.
- Enhancing PKE's visibility as a hub for professional Cisco courses.



IN THE SPOTLIGHT



Celebrating Independence: College of Engineering Hosts 2024 Merdeka Program

29th August 2024

The 2024 Merdeka Celebration at the College of Engineering was held on 29th August, 2024, at the Engineering Square, organized by the Welfare Committee and Administration Office. A total of 35 staff from the School of Electrical Engineering participated. The event, officiated by Prof. Ir. Ts. Dr. Hamidah Mohd Saman, featured various activities including the Merdeka Cycling Convoy, Merdeka Run, Independence Quiz, and a Decorated Bicycle Competition. These events fostered patriotism and unity among the staff, successfully instilling a sense of national pride and appreciation for independence.

PyCode Adventure: Gamified Python Workshop Sparks Innovation

28th - 29th August 2024

On 28th to 29th August 2024, Universiti Teknologi MARA (UiTM), in collaboration with IEEE R10 and IEEE Education Society Malaysia Chapter, hosted the "PyCode Adventure" workshop at Pusat Kegiatan Guru, Petaling Jaya. The event introduced secondary school students and teachers to Python programming through a fun, gamified learning approach, focusing on problem-solving, interactive coding, and real-world applications. The workshop also provided teachers with strategies to integrate Python into their classrooms. Led by UiTM's School of Electrical Engineering, this initiative underscores UiTM's dedication to advancing STEM education.



IN THE SPOTLIGHT



STEM Education: Robots and IoTs Ignite Learning

July-August 2024

From July to August 2024, the "Robots and IoTs Go to Schools" program successfully conducted four key activities: talks on Digital Technology, Industrial Revolution, and Artificial Intelligence, as well as hands-on workshops, including an Arduino workshop using TinkerCad and a Robotic Day. Supported by PPD Pasir Gudang and JPN Negeri Johor, the program engaged 120 students from four schools in Johor. Led by Dr. Arni Munira Markom for the third year, with funding from APPGM-SDG, the initiative was supported by trainers and facilitators from UiTM Shah Alam and Pasir Gudang.

INDUSTRIAL INSIGHTS

Electronics Industry: Collaboration with Malaysia's Semiconductor Industry

19th August 2024

In a significant effort to foster collaboration with Malaysia's semiconductor industry, a group of six students from PKE, accompanied by one lecturer visited the Selangor IC Design Park launching ceremony on 6th August 2024. The launch was officiated by Malaysia's Minister of Economic Affairs, Rafizi Ramli, aiming to boost the integrated circuit (IC) design sector in Malaysia. The Selangor IC Design Park is designed to house more than 400 IC design engineers from five local, international, and joint venture IC design companies.

The park's anchor tenants include Maistorage, Skyechip, Weeroc, AppAsia ChipsBank, and SensoremTek Sdn Bhd. These companies are supported by a robust ecosystem of partners such as BlueChip VC, ARM Holdings, Cadence Design System, Synopsys, Siemens EDA, Keysight, and the Shenzhen Semiconductor Association. During the visit, the group from PKE was given an extensive tour of the park, which will become the largest IC design hub in Southeast Asia. The park is recognized for its state-of-the-art facilities and its focus on nurturing innovation and technological advancements. The companies are actively recruiting skilled candidates with degrees in electrical and electronics engineering, offering highly competitive salaries. Entry-level positions at the park start between RM5,000 and RM6,000 for fresh graduates, while individuals with a master's degree or extensive industry experience can earn up to RM7,000.

The presence of the lecturer and students underscores the importance of educational partnerships in advancing the IC design industry. This visit provided students with valuable exposure to industry practices and highlighted the role of academic institutions in supporting Malaysia's vision of becoming a leading hub for semiconductor technology.



INDUSTRIAL INSIGHTS



UiTM Innovations: Catalysts of Life - Exclusive Insights from Leading Experts on BERNAMA TV

20th August 2024

An exclusive interview with Prof. Associate Dr. Zuraidah Salleh, Head of the Industrial Research Laboratory (IRL), and Assoc. Prof. Ir. Dr. Fadhlán Hafizhelmi Kamaru Zaman, Head of Micro-Industry Hub (MIH), who discussed the interesting topic 'UiTM Innovations Catalyst of Life'. This discussion live on the Apa Khabar Malaysia slot, BERNAMA TV on 20th August 2024 from 9:00 - 10:00 AM.

BENCHMARKING

Enhancing Competence in Rocket and Satellite Operations for Safer Skies

14th to 16th August 2024

Bahagian Penguasa Antarabangsa -BPAngkasa, Ministry of Science, Technology and Innovation (MOSTI) organized a Space Incident and Accident Investigation Competence Enhancement Workshop from 14th to 16th August 2024 at the Pulse Grande Hotel, Putrajaya.



The objective of organizing this workshop is to improve the competence and complete the officers' theoretical and technical knowledge in the operation of space objects, i.e. rockets and satellites, as well as the determination of the coordinates of the location of accidents in conducting investigations into incidents and accidents of space activities that also risk involving loss of life and property in parallel with provisions under the Malaysian Space Agency Act 2022 [Act 834]. The workshop started with a welcome speech from Mr. Mhd Fairos bin Asillam, the Superintendent of MOSTI Space and was attended by more than 40 participants from various Ministries, Departments and Agencies. The completion of the three days of this workshop was delivered by Assoc. Prof. Ts. Dr. Muhammad Hanafi bin Azami, a rocket propulsion technology expert from the International Islamic University of Malaysia, Dr. Muhammad Hasif bin Azami, an expert in satellite development and operation from Universiti Teknologi MARA and Sr. Shahrizal Ide bin Moslin and Mr. Ooi Wei Han, two highly skilled senior research officers in the field of geospatial from the Malaysian Space Agency. Also through this workshop, the participants had the opportunity to experience using measuring tools from the Global Navigation Satellite System (GNSS) in determining the coordinates and location of an accident more accurately.

ACHIEVEMENTS



Congratulations to Ir. Dr. Marianah Masrie for receiving the Silver Award for her MOOC: Signal and Systems in the International e-Content Virtual Development Competition 2024 (eConDev2024).



Congratulations Ir. Dr. Nurfadzilah binti Ahmad for being recognized as a Professional Engineer by the Board of Engineers Malaysia.



Congratulations Dr Nik Hakimi Nik Ali on his successful certification as an Electric Energy Manager by the Suruhanjaya Tenaga.



Congratulations to Assoc. Prof. Ir. Ts. Dr. Suzi Seroja Sarnin, Mr Mohd Nor Md Tan, Mr Mohd Rizal Dohad, Ikram Bin Hashim, Muhammad Adam Danish Bin Hisham, and Maha Bin Mohd Hazar for winning the Gold Award and Best Entrepreneurship Idea Award (IPT) at the International Student Invention Innovation Development Exhibition Competition (ISIIDEC) 2024.

ACHIEVEMENTS

Consultants for Universiti Kuala Lumpur - British Malaysian Institute

3rd August 2024

Congratulation to Assoc. Prof. Ir. Dr. Shahril Irwan Sulaiman (Leader) and Ir. Ts. Dr. Zulkifli Othman (Member) for the appointment as consultants for Universiti Kuala Lumpur - British Malaysian Institute.



Nature Inspired Optimization Technique & Machine Learning for Optimal Load Frequency Control project

8th August 2024

Congratulations to Ts. Dr. Kanendra Naidu for his appointment as a consultant for Pusat Latihan Pengajar & Kemahiran Lanjutan-CIAST. He'll lead the Nature Inspired Optimization Technique & Machine Learning for Optimal Load Frequency Control project with RM10,000 funding.

ACHIEVEMENTS

Empowering Communities Through STEM

We congratulate Professor Ir. Dr. Ahmad Sabirin Zoolfakar and his team, including Ir. Ts. Dr. Rozina Abdul Rani, Ir. Ts. Dr. Maizatul Zolkapli, Ir. Ts. Dr. Azrif Manut, Norhayati Soin, Sushthitha Menin N V Visvanathan, and Hazian Mamat, for securing an IEEE Electron Device Society International Grant of RM 121,000 for their project "STEM4FUN: Promoting STEM to Underserved Communities." This achievement highlights their dedication to advancing STEM education and empowering underserved communities.



Bridging Academia and Industry: A Grant for Research Commercialization

We congratulate Professor Ir. Dr. Ahmad Sabirin Zoolfakar on securing a RM 30,000 Bestari TD grant for his project, "Kajian Peningkatan Visibiliti dan Jaringan Penyelidikan (Pengkomersilan)." This grant underscores his dedication to boosting research visibility and strengthening commercial research networks, bridging academia and industry.

ACHIEVEMENTS

Advancing Infrastructure

We congratulate Professor Ts. Dr. Mohamad Rusop Mahmood and his team, including Dr. Noor Asnida Asli, Salifairus Mohammad Jafar, Assoc. Prof. Dr. Zuraida Khusaini, Assoc. Prof. Ts. Dr. Mohd Firdaus Malek, Dr. Mohd Husairi Fadzilah Suhaimi, Mohibah Musa, Muhamad Faizal Abd Halim, and Mohd Azlan Jaafar, on securing a RM 464,100 National Grant from the Kementerian Ekonomi Malaysia for their project, "Enhancing Research Instrument Management for Public Universities in Malaysia."

Research



Pioneering Smart Energy: Revolutionizing Renewables with VPP Technology

The Solar Research Institute (SRI) of UiTM, led by Prof. Ir. Dr. Nofri Yenita Dahlan and supported by PETRONAS Research Sdn Bhd, is pioneering innovations in renewable energy with its Virtual Power Plant (VPP) technology. By integrating solar photovoltaic, battery storage, and demand response into a smart, decentralized network, VPP technology enhances grid stability, reduces energy costs, and lowers carbon footprints. This groundbreaking work positions SRI at the forefront of sustainable energy solutions, driving the shift towards a greener, more resilient energy future.

ACHIEVEMENTS

Revolutionizing Energy Storage for Remote Oil Rig Sustainability

The oil and gas industry faces challenges in maintaining reliable energy for remote platforms. Associate Professor Ir Ts Dr. Syed Abdul Mutalib Al Junid Syed Abdul Rahman from Universiti Teknologi MARA leads a PETRONAS-funded project focused on Self-Sustaining Energy Storage Systems for these applications. This groundbreaking initiative aims to develop energy storage with million-cycle charging capability, reducing maintenance needs and ensuring long-term operational efficiency. By enhancing sustainability and minimizing costs, the project will optimize power supply for wellhead, satellite, and remote oil rig platforms, driving improvements in reliability and reducing environmental impact.



Advancing Green Technology: Revising the CPMV Certification Module

Congratulations to Prof. Ir. Dr. Nofri Yenita Dahlan and her team for securing a grant from the Malaysian Green Technology and Climate Change Corporation for their project, "Certified Professional in Measurement and Verification (CPMV) Module Revision".

ACHIEVEMENTS

Innovating Healthcare: Radar-Integrated Robots for Fall Detection

Congratulations to Assoc. Prof. Ir. Ts. Dr. Rozita Jailani and her team for securing a British Council grant for their project, "Radar-Integrated Robot System for Fall Detection in Hospital Settings: Dual-PhD Program".



Advancing Healthcare: Personalized Digital Therapy Modules

Congratulations to Assoc. Prof. Ir. Ts. Dr. Rozita Jailani and her team for securing a Strategic Research Partnership grant for their project, "Development of Personalized Digital Therapy Modules".

ACHIEVEMENTS

Optimizing Power Systems: Multi-Objective Solutions for Distributed Generation Installation

Congratulations to Prof. Ir. Dr. Ismail Musirin and team members, the recipient of a grant from VSCP for a project entitled Integrated Pareto-Based Multi-Objective Optimization for Distributed Generation Installation in Power System Planning.



Revolutionizing Sustainability: Fungal Innovations for Hunger and Energy Solutions

Congratulations to Ir. Dr. Nurfadzilah Ahmad and her team for securing a grant from the Royal Society of Edinburgh and Edinburgh Napier University for their project, "Fungal Innovations for Synergy of Zero Hunger and Affordable Energy for Sustainable Development (FUSE)".

ACHIEVEMENTS

Space Weather Science and Satellite Technology

Congratulations to Prof. Ir. Dr. Mohamad Huzaimy Jusoh and his team for securing a VSCP grant for their project, "Revolutionizing Space Weather Science and Satellite Technology: Exploring Scientific Advancements for Competitiveness and Reliability".



Innovating Nanomaterials for Renewable Energy and Sensor Technologies

Congratulations to Prof. Ir. Ts. Dr. Mohamad Hafiz Mamat and his team for securing a VSCP grant for their project, "Synthesis of Nanomaterials for Renewable Energy and Sensor Applications".

ACHIEVEMENTS

Advancing AI: Revolutionizing Head Pose Classification Technology

Congratulations to Dr. Nur Khalidah Zakaria and her team for securing a Strategic Research Partnership grant for their project, "The Evolution of AI-Powered Head Pose Classification".



Innovating Nanomaterials for Renewable Energy and Sensor Technologies

Congratulations to Dr. Mazidah Tajuddin and Dr. Suhaili Beeran Kutty for securing a DDF grant for their project, "Rainfall prediction from cloud images using Convolutional Neural Network."

ANUGERAH PERKHIDMATAN CEMERLANG 2023

Well done & Congratulations to all recipients of the Anugerah Perkhidmatan Cemerlang 2023.



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STAFF PROMOTION



Congratulations Assoc. Prof. Ts. Dr. Roslina Mohamad on being promoted to the position of Associate Professor (DM54)



Congratulations Mr. Mohd Azman Hanif bin Sulaiman on his promotion to the position of Lecturer (DM45).



EDITORIAL TEAM

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