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ENGINEERING

INNOVATION & EXHIBITION

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AWARD ANNOUNCEMENT



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INNOVATION AWARD

BRONZE





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INNOVATION AWARD

AGRICULTURE/FOOD RELATED





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INNOVATION AWARD



Microwave Heat Treatment of Glutinous Rice Emping

Mrs. Zanariah Mohd Dom



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INNOVATION AWARD



Oil Palm Yield Prediction Web App

**Assoc. Prof. Dr. Helmi Zulhaidi
Mohd. Shafri**



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INNOVATION AWARD



D'Palpa: An Efficient Pulp Separator for Mesocarp Removal

Prof. Ts. Dr. Rosnah Shamsudin



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INNOVATION AWARD

**ELECTRICAL/
ELECTRONICS/
COMPUTER/ ENERGY**





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INNOVATION AWARD

Smart Energy Meter with Adaptive Communication Data Transfer

**Assoc. Prof. Dr. Nashiren
Farzilah Mailah**



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INNOVATION AWARD

Muscle Fatigue Detection Algorithm (MFDA) for Controlling An Upper Limb Rehabilitation Robot Based on Electromyography Signals

Dr. Hafiz Rashidi Ramli



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INNOVATION AWARD

**MATERIAL/SYSTEM/
METHOD**





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INNOVATION AWARD

Load Flow Analysis Using Generalized Linear Hopfield Neural Network via Moore- Penrose Pseudo-Inverse

**Assoc. Prof. Ir. Dr. Noor Izzri
Abd. Wahab**



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INNOVATION AWARD

Virtual Road Information Management System (VRIMS)

Sr. Gs. Dr. Siti Nur Aliaa Roslan



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INNOVATION AWARD

Hybrid Composite Bridge Girder System

Dr. Nor Azizi Safiee



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INNOVATION AWARD

MECHANICS/ MACHINES/DEVICES





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INNOVATION AWARD

Channel-Wing Aircraft

Dr. Mohd Faisal Abdul Hamid





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INNOVATION AWARD



Six-Component Balance System

Dr. Mohd Faisal Abdul Hamid



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INNOVATION AWARD

SILVER





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INNOVATION AWARD



Moringa Chewable Tablets - MorinGO

Prof. Ir. Dr. Yus Aniza Yusof



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INNOVATION AWARD

A Comparison of UAV and TLS Data For Basal Stem Rot (BSR) Disease Detection in Oil Palm Plantation

Ts. Dr. Nur Azuan Husin



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INNOVATION AWARD

Self-Healable Red Tilapia's Fish Scale Gelatin- Polyaniline Film

**Ms. Nazatul Shima Azmi / Dr.
Roseliza Kadir Basha**



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INNOVATION AWARD



M'SReD: Durian Rind Shredder for Efficient Biowaste Composting

Prof. Ts. Dr. Rosnah Shamsudin



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INNOVATION AWARD

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ELECTRONICS/
COMPUTER/ ENERGY**





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INNOVATION AWARD

Automated Robot Manipulator for Surgical Tools Detection During Laparoscopic Cholecystectomy

**Mr. Lim Zhi Yang / Ts. Dr. Luthffi
Idzhar Ismail**



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INNOVATION AWARD



Retro-Save Aircond Energy Saver

Mr. Azizi Mohd Ali



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INNOVATION AWARD

Remote Underground Water Level Monitoring System

**Ms. Siti Aishah Husna Mohamad
Nor**



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INNOVATION AWARD

**MATERIAL/SYSTEM/
METHOD**





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INNOVATION AWARD

Development Of AERO+ISO Garde: An Ecological Thermal Insulating Coating for Industrial Application

**Prof. Ir. Ts. Dr. Abd. Rahim Abu
Talib**



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INNOVATION AWARD

Jatropha Oil Based Ultraviolet Curable Self- Healing Coating

Prof. Dr. Luqman Chuah Abdullah



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INNOVATION AWARD

EruCrete

Ir. Dr. Noor Azline Mohd Nasir





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INNOVATION AWARD



Jatropha Oil Biobased Membrane for Environmental Remediation

Prof. Ts. Dr. Zurina Zainal Abidin



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INNOVATION AWARD

MECHANICS/ MACHINES/DEVICES





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INNOVATION AWARD

2.75 Inches Sounding Rocket UPM

**Prof. Ir Dr. Kamarul Arifin
Ahmad**



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INNOVATION AWARD



Drag Reducer for Blunt Body Transportations

**Assoc. Prof. Dr. Azmin Shakrine
Mohd Rafie**



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INNOVATION AWARD

A New Mini Lemongrass Harvesting Machine for Small Scale Farmers

Assoc. Prof. Dr. Nazmi Mat Nawi



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INNOVATION AWARD

GOLD





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INNOVATION AWARD

QarboGrow – A Biohacking Technology for Smarter Farming

Prof. Ts. Dr. Suraya Abdul Rashid



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INNOVATION AWARD

NUTRIMAP: Real-Time Soil Nutrient Mapping System for Oil Palm Plantation

Dr. Ezrin Mohd Husin



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INNOVATION AWARD

High Fiber Noodle from Banana Peel

Mrs. Zanariah Mohd Dom



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INNOVATION AWARD

**ELECTRICAL/
ELECTRONICS/
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INNOVATION AWARD

Net-Peat: Estimation of Ground Water Level (GWL) for Tropical Peatland Forest Using Machine Learning

Prof. Ir. Dr. Aduwati Sali



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INNOVATION AWARD

Portable Optical Biosensor Kit for Leptospira DNA Detection

Dr. Zuraidah Zan



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INNOVATION AWARD

**MATERIAL/SYSTEM/
METHOD**





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INNOVATION AWARD

Nanocellulose-Graphene Reinforced Green Epoxy Hybrid Composite for Electric Car Battery Pack Enclosure

Prof. Dr. Ir. Mohd. Sapuan Salit



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INNOVATION AWARD

Artificial Intelligence for Early Warning of Leptospirosis (AI-FEAL)

**Assoc. Prof. Dr. Zed Diyana
Zulkafli**



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INNOVATION AWARD

Kenaf Fiber Geopolymer Concrete (KFGPC)

**Assoc. Prof. Ts. Ir. Dr. Dr. Farah
Nora Aznieta Abd. Aziz**



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INNOVATION AWARD

Agro Waste as Pore Former for Porous Alumina Ceramics with Metal Reinforcement

**Assoc. Prof. Dr Azmah Hanim
Mohamed Ariff**



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INNOVATION AWARD

Waste Cooking Oil Granulate as Asphalt Binder Additive (WCOG)

**Assoc. Prof. Dr. Fauzan Mohd.
Jakarni**



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INNOVATION AWARD

MECHANICS/ MACHINES/DEVICES





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INNOVATION AWARD

New Concept of High Altitude Platform Station

**Assoc. Prof. Dr. Azmin Shakrine
Mohd Rafie**



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INNOVATION AWARD

Stabilized And Flexible Electric Unicycle as A Micromobility in Urban and Residential Areas

Dr. Muhammad Azim Azizi



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ANUGERAH KHAS INOVASI FAKULTI KEJURUTERAAN





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ANUGERAH KHAS INOVASI

FAKULTI KEJURUTERAAN

**PORTABLE OPTICAL
BIOSENSOR KIT FOR
LEPTOSPIRA DNA DETECTION**

DR. ZURAIDAH BINTI ZAN





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GRAND PRIZE
iENA 2023





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**QARBOGROW – A
BIOHACKING TECHNOLOGY
FOR SMARTER FARMING**

PROF. TS. DR. SURAYA ABDUL RASHID





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