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FACULTY OF ENGINEERING

فاكولتي كجوروتراعن



RESILIENT ENGINEERING PRODUCT

ENGINEERING
INNOVATION & EXHIBITION

FACULTY OF ENGINEERING | UNIVERSITI PUTRA MALAYSIA

2 JULY 2025 | 9.00AM
FACULTY OF ENGINEERING, UPM

AWARD ANNOUNCEMENT

INNOVATION AWARD

BRONZE





INNOVATION AWARD

MULTI PORT HAPTIC INTERFACE FOR AN ENDOVASCULAR SURGERY SIMULATOR

IR. TS. DR. HAFIZ RASHIDI HARUN@RAMLI
NISHEN PRAKASH A/L SEVAKUMAR



INNOVATION AWARD

INTELLIGENT CHIP PACKAGING QUALITY CONTROL USING DEEP LEARNING AND ROBOTIC VISION

TS. DR. NOR MOHD. HAZIQ NORSAHPERI
ELSHISHINI MARYAM YASSER GAMAL ABDELHAMID



INNOVATION AWARD

LIGHT MEETS EARTH: OPTICAL FIBER TECHNOLOGY FOR SOIL HEALTH MONITORING

DR. NADIAH HUSSEINI ZAINOL ABIDIN
NURUL NADIAH ZULKEFLEE



INNOVATION AWARD

**LOW-COST,
LOCATION-OPTIMIZED PMU
ALTERNATIVE FOR REAL-TIME
POWER SYSTEM OBSERVABILITY**

ASSOC. PROF. IR. DR. NOOR IZZRI ABD. WAHAB

DR. RIJAVAN FARADE

ASJAD ALI

GOPALAKRISHNAN SHIVA



INNOVATION AWARD

MULTI-MODE VEHICLE DATA COMMUNICATION SYSTEM

PROF. DR. ISHAK ARIS

ASSOC. PROF. DR. IZHAL ABDUL HALIN

ASSOC. PROF. DR. NOOR 'AIN KAMSANI

TS. AHMAD FAIRUS MUHAMMAD AMIN



INNOVATION AWARD

**ANALYZING THE IMPACT OF INTEGRATED
BIM-GIS ON DECISION MAKING,
VISUALIZATION AND COLLABORATION IN
URBAN PLANNING**

**SR. GS. DR. SITI NUR ALIAA ROSLAN
PROF. SR. GS. DR. HELMI ZULHAIDI MOHD. SHAFRI
ASSOC. PROF. IR. TS. DR. AIDI HIZAMI ALES@ALIAS
MUHAMMAD AFIQ AIMAN AZIZ**



INNOVATION AWARD

THERMAL CYCLING & AGING EFFECTS ON BISMUTH-ENHANCED SAC305 FOR ELECTRONIC PACKAGING

ASSOC. PROF. DR. AZMAH HANIM MOHAMED ARIFF
ONG JUN LIN



INNOVATION AWARD

TOWARDS DRIVER-CENTRIC VMS DISPLAY GUIDELINES IN MALAYSIA

DR. MEGAT USAMAH MEGAT JOHARI



INNOVATION AWARD

CORRUGATED CORE SANDWICH STRUCTURE FOR UNDERBODY SHIELD ELECTRIC VEHICLE

ASSOC. PROF. IR. DR. NURAINI ABDUL AZIZ
ASSOC. PROF. DR. IR. DR. MOHD. KHAIR HASSAN
DR. MUHAMMAD AZIM AZIZI
SITI AISHAH RUSDAN



BRONZE

INNOVATION AWARD

REGENERATIVE TESLA TURBINE DRONE

DR. ADI AZRIFF BASRI
MUHAMMAD NOR IKMAL



INNOVATION AWARD

DEVELOPMENT OF AUTOMATIC STAND TO IMPROVE THE LATERAL STABILITY OF AN ELECTRIC UNICYCLE USING TRIZ

DR. MUHAMMAD AZIM AZIZI
NOORHIDAYAH RAMLI



INNOVATION AWARD

GREENFIELD IoT: GROWTH PREDICTION FOR BAMBOO PLANTATION AT NURSERY LEVEL

DR. MOHD. ZUHRI MOHAMED YUSOFF
PRASANTH MURUGAYAH



INNOVATION AWARD

SOUNDGENIX: PREDICTIVE CT MAINTENANCE WITH GENERATIVE AI

ASSOC. PROF. DR. SYAMSIAH MASHOHOR
MOHAMMAD HABIB SHAH ERSHAD



INNOVATION AWARD

SILVER





INNOVATION AWARD

REMOTELY-CONTROLLED CANARD FIN SYSTEM FOR HIGH-ACCURACY ROCKET GUIDANCE

ASSOC. PROF. DR. NOORFAIZAL DATO' YIDRIS
MUHAMAD ALIFF HAIKAL BIAMIN
CLARISSA CLARENCE FOO SUI YIEN
ZUL HARRIS PUTRA



INNOVATION AWARD

NEXT-GEN ORNITHOPTER: SMARTER FLIGHT VIA ASYMMETRIC FLAPPING

DR. MOHD. FAISAL ABDUL HAMID
GUO JIA QING



INNOVATION AWARD

HOLLOW FIBER MEMBRANE FOR CARBON CAPTURE

DR. MOHAMAD REZI ABDUL HAMID



INNOVATION AWARD

RAPID FISH HEALTH DIAGNOSTIC SENSOR USING GOLD-NANOPARTICLE SERS TECHNOLOGY

DR. ZURAIDAH ZAN

NATHANIEL LEONG JENN KWANG



INNOVATION AWARD

DEFECT INSPECTION VIA VIBRATION ANALYSIS

ASSOC. PROF. IR. DR. MOHAMMAD YAZDI HARMIN
JUNAID ZAHID



INNOVATION AWARD

PUTRALINK/AGEPIONEER

ASSOC. PROF. TS. DR. MOHD. NAZIM MOHTAR
ZHAFIRAH REDZA



INNOVATION AWARD

A VPT-BASED DIAGNOSTIC TOOL FOR DIFFERENTIATING HEALTHY AND DIABETIC INDIVIDUALS

DR. KHAIRIL ANAS MD REZALI

ASSOC. PROF. IR. DR. NAWAL ASWAN ABDUL JALIL

ASSOC. PROF. DR. NG YEE GUAN

DR. AZIZAN AS'ARRY

DR. MAZATUL FAZURA SF SALIM

MUHAMMAD TAUFIQ ZALIRAN



INNOVATION AWARD

OHMIC HEATING FOR DELIGNIFICATION OF BIOMASS (OhmicLigno Heater)

PROF. IR. DR. HASFALINA CHE MAN

ASSOC. PROF. DR. ROZITA OMAR

TS. DR. MUHAMMAD HAZWAN HAMZAH

DR. NUR SYAKINA JAMALI

IZZAH FARHANA AB. AZIZ



INNOVATION AWARD

PORTABLE DOUBLE-STATOR PICO HYDRO GENERATOR

PROF. DR. NORHISAM MISRON
HAIRUL FAIZI HAIRULNIZAM
NUR AMIRA IBRAHIM



INNOVATION AWARD

SMART RESTROOM MONITORING SYSTEM

ASSOC. PROF. IR. DR. AHMAD SHUKRI MUHAMMAD NOOR
FAREESHA IRDEENA AZMAN



INNOVATION AWARD

GETARS: LOW-COST IoT-BASED CONDITION MONITORING DEVICE FOR ROTATING MACHINERY

IR. RAZALI SAMIN

DR. KHAIRIL ANAS MD REZALI

DR. AZIZAN AS'ARRY

DR. TUAN AHMAD ZAHIDI TUAN ABDUL RAHMAN

DR. LEONG WEN CHEK

MOHD. ZAFRI MAHDI

NUR AFIQAH ABDUL RAHMAN

AHMAD RIZAL AHMAD BOKHARI



INNOVATION AWARD

OilPalmDetector©: HIGH PRECISION OIL PALM DETECTION AND COUNTING POWERED BY AI

PROF. SR GS. DR. HELMI ZULHAIDI MOHD. SHAFRI
FARAH ADILA AHMAD MARZUKI



INNOVATION AWARD

SMARTCONE: THE FUTURE OF SAFETY WITH SOLAR AND WIND ENERGY

DR. ADI AZRIFF BASRI
DILAWAR HUSSAIN



INNOVATION AWARD

SUSTAINABLE BIOPLASTIC COMPOSITES FROM PLA AND BANANA PEEL POWDER: A CIRCULAR SOLUTION FOR DISPOSABLE PRODUCTS

**DR. ADI AZRIFF BASRI
AHMAD 'IRFAN NAZARUDIN**



INNOVATION AWARD

CONCRETE GREEN RE-PATCH

**DR. NOOR AZLINE MOHD. NASIR
ASSOC. PROF. DR. NOR AZIZI SAFIEE
DR. NABILAH ABU BAKAR
ERNALEZA MAHSUM
MUHAMMAD NAEEM**



INNOVATION AWARD

GOLD





INNOVATION AWARD

COCOpecta : PECTIN FROM COCOA POD HUSK

PROF. TS. DR. ROSNAH SHAMSUDIN
SATRIA BHIRAWA ANORAGA
MUHAMMAD HAZWAN HAMZAH
SUZANNAH SYARIF
ARIFIN DWI SAPUTRO
NURIN HIDAYAH JULSHahrIL
NURUL FAEZAWATY JAMALUDIN



INNOVATION AWARD

REAL-TIME GRAIN LOSS MONITORING SYSTEM

ASSOC. PROF. DR. NAZMI MAT NAWI
MD. SUMON MIAH



INNOVATION AWARD

GOLDEN APPLE SNAIL LIQUID FOLIAR FERTILIZER

ASSOC. PROF. DR. NAZMI MAT NAWI
NAJIDAH ABDULLAH



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CHApXcel™: PRECISION BIOMEDIA FOR ENERGY AND SOIL HEALTH

DR. NUR SYAKINA JAMALI

PROF. IR DR WAN AZLINA WAN AB. KARIM GHANI

PROF. IR. DR. HASFALINA CHE MAN

ASSOC. PROF. TS. DR. MOHAMAD FAIZAL IBRAHIM

SITI FATIMAH ISMAIL



INNOVATION AWARD

COLOR REMOVAL FROM WASTEWATER USING ANTI-FOULING ULTRAFILTRATION MEMBRANE SYSTEMS

**PROF. IR. DR. HASFALINA CHE MAN
PROF. DR. ZURINA ZAINAL ABIDIN
ASSOC. PROF. DR. KHAIRUL FAEZAH MD YUNOS
ASSOC PROF. IR. DR. AIDA ISMA IDRIS
DR. AZNI IDRIS
DR. IBRAHIM BABANGIDA DALLHA
DR. MOHAMMAD ABDULSALAM**



INNOVATION AWARD

MAGBIO™: A MAGNETITE-DOPED GAC FOR WASTE2HYDROGEN CONVERSION

DR. NUR SYAKINA JAMALI
PROF. DR. LUQMAN CHUAH ABDULLAH
ASSOC PROF. DR. SYAZWANI IDRUS
DR. NURUL SAKINAH ENGLIMAN
DR. NINA FARHANA MOHD. JAMALUDIN



INNOVATION AWARD

MICROALGAE AS GREEN GOLD: UNLOCKING NATURE'S POWER FOR AGRICULTURAL SUSTAINABILITY

PROF. TS. DR. MOHD. RAZIF HARUN
DR. SITI BAIZURA MAHAT



INNOVATION AWARD

ReCon EcoPave BLOCK

ASSOC. PROF. DR. NOR AZIZI SAFIEE
ASSOC. PROF. IR. TS. DR. FARAH NORA AZNIETA
DR. NOOR AZLINE MOHD. NASIR
DR. NABILAH ABU BAKAR
ERNALEZA MAHSUM
SAID M.M ALJAMALA



INNOVATION AWARD

APPLICATION OF PINEAPPLE LEAF FIBER (PALF) IN AEROSPACE AND AUTOMOTIVE INDUSTRIES : CONVERTING WASTE TO WEALTH

**PROF. IR. TS. DR. MOHAMED THARIQ HJ HAMEED SULTAN
DR. FARAH SYAZWANI SHAHAR
YAVINAASH NAIDU SARAVANAKUMAR
NAVANEETHA KRISHNA CHANDRAN**



INNOVATION AWARD

AEROCASM: A FIREPROOF COMPOSITE FOR AIRCRAFT FIRE-DESIGNATED ZONES

**DR. SYAMIMI SAADON
ASSOC. PROF. TS. DR. NORKHAIRUNNISA MAZLAN
ASSOC. PROF. DR. MOHD. ZAHIRASRI MOHD TOHIR
NUR AMALINA OMAR
YEOH THIAN SHEN**



INNOVATION AWARD

AUTONOMOUS GRABBER FOR FRESH FRUIT BUNCH (FFB) COLLECTION

PROF. DR. WAN ZUHA WAN HASAN
AHMAD SAFIUDDIN SAHARRUDIN
SYAHMI AZHAR



INNOVATION AWARD

**SUSTAINABLE INNOVATION:
ARROWROOT STARCH/CNT
BIOPOLYMER COMPOSITES FOR GREEN
PIEZOELECTRIC APPLICATIONS**

**PROF. DR. IR. MOHD. SAPUAN SALIT
DR. VASI UDDIN SIDDIQUI
ABDUL HABIB
MUHAMMAD HAZIM BIN HIDZER
AZROL BIN JAILANI
YUSUF JAMEEL**



INNOVATION AWARD

MoraTex: AN INNOVATIVE COMPOSITE FOR SUSTAINABLE, HIGH-PERFORMANCE FACADES AND REPAIR

DR. NABILAH ABU BAKAR
ASSOC. PROF. DR. NOR AZIZI SAFIEE
ASSOC. PROF. IR. TS. DR. FARAH NORA AZNIETA
DR. NOR AZLINE MOHD. NASIR
SANJAY GOKUL VENIGALLA



INNOVATION AWARD

SMART COMPOST : A PORTABLE, AI-MONITORED COMPOSTING BIN FOR FOOD WASTE MANAGEMENT

**TS. DR. MOHD. SALAHUDDIN MOHD. BASRI
PROF. TS. DR. ROSNAH SHAMSUDIN
DR. NOOR ZAFIRA NOOR HASNAN
DR. ROKIAH HASSAN
TUAN LAR. MAZRUL HISYAM CHE ROSE
LT M WAN AHMAD KHALID W AZIZAN**



INNOVATION AWARD

FruityCPH LITE JAM

**PROF. TS. DR. ROSNAH SHAMSUDIN
SATRIA BHIRAWA ANORAGA
MUHAMMAD HAZWAN HAMZAH
SUZANNAH SYARIF
ARIFIN DWI SAPUTRO
NURIN HIDAYAH JULSHAHIL
NURUL FAEZAWATY JAMALUDIN**



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CorroVision: AI-POWERED BINARY CLASSIFIER FOR CORROSION DETECTION

DR. MOHD. NA'IM ABDULLAH
MUHAMMAD AMIR IMRAN



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ALGAVOLT: ALGAE BASED SUPERCAPACITOR

**DR. NUR IZZAH NABILAH HARIS
PROF. IR. DR. WAN AZLINA WAN ABDUL KARIM GHANI
DR. SHAFREEZA SOBRI
DR. FAIZAH MOHD YASIN
KANG WAI HOE
NUR IZZAH BATRISYIA HARIS
NURUL IZZAH AZMI**

INNOVATION AWARD





INNOVATION AWARD

Faculty of Engineering

**CHApXcel™: PRECISION BIOMEDIA
FOR ENERGY AND SOIL HEALTH**

DR. NUR SYAKINA JAMALI

PROF. IR DR WAN AZLINA WAN AB. KARIM GHANI

PROF. IR. DR. HASFALINA CHE MAN

ASSOC. PROF. TS. DR. MOHAMAD FAIZAL IBRAHIM

SITI FATIMAH ISMAIL

INDUSTRY AWARD





INDUSTRY AWARD

Novapave Sdn. Bhd.

**MICROALGAE AS GREEN GOLD:
UNLOCKING NATURE'S POWER FOR
AGRICULTURAL SUSTAINABILITY**

PROF. TS. DR. MOHD. RAZIF HARUN
DR. SITI BAIZURA MAHAT



INDUSTRY AWARD

Qastalani Sdn. Bhd.

REAL-TIME GRAIN LOSS MONITORING SYSTEM

ASSOC. PROF. DR. NAZMI MAT NAWI
MD. SUMON MIAH

GRAND PRIZE

iENA 2025

Booth & Flight sponsor to Germany
(iENA 2025)



GRAND PRIZE iENA 2025

**CorroVision: AI-POWERED
BINARY CLASSIFIER FOR
CORROSION DETECTION**

**DR. MOHD. NA'IM ABDULLAH
MUHAMMAD AMIR IMRAN**



GRAND PRIZE iENA 2025

ALGAVOLT: ALGAE BASED SUPERCAPACITOR

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PROF. IR. DR. WAN AZLINA WAN ABDUL KARIM GHANI

DR. SHAFREEZA SOBRI

DR. FAIZAH MOHD YASIN

KANG WAI HOE

NUR IZZAH BATRISYIA HARIS

NURUL IZZAH AZMI



Congratulations!