



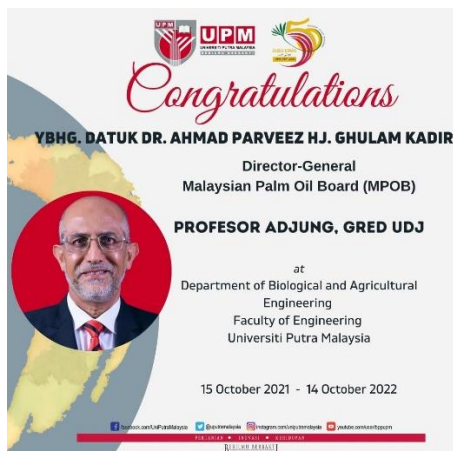
DBAE NEWSLETTER

Volume 2, Issue 2021

DEPARTMENT OF BIOLOGICAL AND AGRICULTURAL ENGINEERING (DBAE)

HIGHLIGHTS

FORWARD



Assalamualaikum w.b.t and Salam sejahtera. A new year, a new beginning. Happy New Year and welcome 2022! Looking back on 2021, the DBAE has achieved various milestones despite facing pandemic challenges. Embracing the new normal, the department has conducted various academic and research activities through digital platforms; Online T&L, virtual tours, online exhibitions and competitions, webinars and trainings.



For the first time in DBAE history, the assessment of the DBAE's Bachelor program was conducted virtually by Prof. Dr. Paul Heinemann of Pennsylvania State University, USA. We are also honored to welcome Datuk Dr. Ahmad Parveez Ghulam Kadir as a new member of the DBAE family but at the same time have to allow Hj Ghazali Kassim who has served over 40 years with the DBAE to enjoy retirement. The year 2021 also saw students and staff of the department received various awards nationally and internationally, making us optimistic to strive for more in 2022.

Head of Department,
Assoc. Prof. Ir. Dr. Norhashila Hashim

Congratulations!

Anugerah Perkhidmatan Cemerlang 2020

- Prof. Madya Ir. Dr. Norhashila Hashim
- Dr. Aimrun Wayayok
- Pn. Nordiyana Abd Razak

Anugerah Bakti Putra

- En. Mohd Roshdi Zamri
- Hj. Zainal Abidin Abd Ghani

Anugerah Jasa Putra & Anugerah Perkhidmatan Melebihi 40 tahun

- Hj. Ghazali Kassim

ACADEMICS



Welcome TO ALL-NEW STUDENTS INTAKE 2021/2022

Bachelor of Agricultural and Biosystems Engineering with Honours UPM



CONGRATULATIONS AND WELCOME TO DBAE FAMILY!

We are delighted to receive
53 new students intake of
2021/2022 to our
department.

RACHELL ANAK KONSIL . WAN RIFQAH BINTI ABDULLAH
SITI NAZRAH BINTI AMIR . MIOR SYAHMI ISKANDAR BIN MIOR SHABUDIN
ESTELIN JUANIS . EUNISE CLARE ANAK DAKLEN
ARVIN RAJ RAMESH . MUHAMMAD FAHAD BIN FRIN
UGISHVARAN A/L UTHAYA SHANKAR . MUHAMMAD NAJIB
QARDHAWI BIN NAZARUDDIN . FAIDZ BIN MOHAMAD AMIN
GEOVANNY AGAN LEO APOI . KHAIRUL A'FIF BIN MAT ZAKI
MUHAMAD HARITH DANIAL BIN CHE APANDI
IQMAL LUQMAN SHAUQI BIN JAPRI . AINUL SAFIYYAH BINTI ABDUL RAZAK
JENNY CHEW CHI TING . MUHAINI SYAHIRAH BINTI ABDUL GHANI
MUHAMMAD IRFAN HAKIMIE BIN MOHD ZAKI
MOHD BAHARIN BIN LAKIMO . NG JOE YE . NETHIYAA GANISH
NUR HIDAYAH BINTI SANUSI . LUQMANUL HAKIM BIN MOKHTADIN
MUHAMAD AMIR FAIZ BIN MOHD BADRAN . WAN AMIRA MASITAH BINTI WAN MUSTAFA
AINUL GULSAR BEGUM BINTI GANI . MUHAMMAD SYAHMIE BIN AMAN
MUHAMMAD ALIFSHAHMEEN MAMIN
NURUL FADILLAH BINTI AMRIL . MUHAMMAD ARIFF NAJMI BIN ADLY . KALIF ANAK CONDER
MUHAMMAD FIRDAUS AHMAD KAMARUL NIZAM
INTAN NURFARHANA BINTI AZMAN . FAREESYA NAJWA BINTI AZHAR . NUR FATIHAH BINTI JAMALUDIN
KARTHIK A/L VIKNESWARAN . MARINI ZAHIRAH BINTI MOHAMAD SHUKRI
MUHAMMAD ARIF DANIAL BIN ISMAIL . MUHAMMAD AMIR HAKIM BIN AZMI
MUHAMMAD SHAHRULHAZMIE BIN CHE MOHAMAD ZULKIFLI
JAIMIE GENIUS JAIMIEH @ JAIMIT . WAN MUHAMMAD IRFAN BIN WAN NAZRON
FARISYA NASIHAH BINTI ZAINUDDIN . SITI NURUL SYAFIQAH BINTI SAIDIN
NURFATILA BINTI MOHD ROSDI . SALWANA BINTI ZAILAN
NUR AZFAR AFIFAH BINTI CHE AZIZ . MUHAMMAD AQIL BIN MUHAMMAD AZHAN
AMEENA SYAHIRAH BINTI MOHD TARMEZI . AMMAR LUQMAN BIN AZRAIN
AHMAD HAZIM BIN ABDUL RAZAK

EXTERNAL ASSESSOR VIRTUAL VISIT FOR THE BACHELOR OF AGRICULTURAL AND BIOSYSTEMS ENGINEERING WITH HONOURS

**Universiti
Putra
Malaysia**

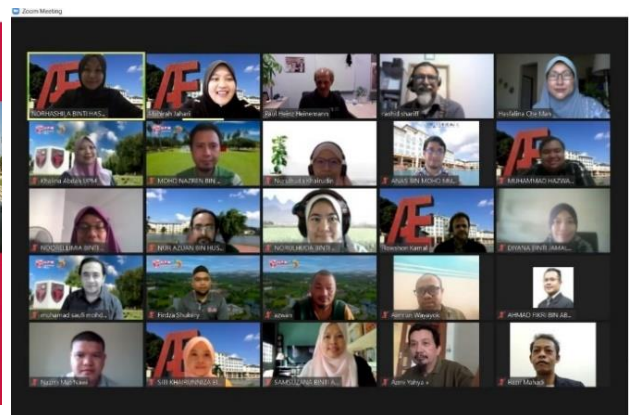
**External Assessor Visit
Prof. Dr. Paul Heinemann
2nd August – 27th August 2021**



WELCOME | SELAMAT DATANG

[facebook.com/UPMputraMalaysia](https://www.facebook.com/UPMputraMalaysia)
[@uputramalaysia](https://www.instagram.com/uputramalaysia)
[youtube.com/user/uputramalaysia](https://www.youtube.com/user/uputramalaysia)
www.upm.edu.my

AGRICULTURE • INNOVATION • LIFE



A virtual visit from the new external assessor, Prof. Dr. Paul Heinemann from the Pennsylvania State University, USA. He is also the current President of the American Society of Agricultural and Biological Engineers (ASABE).

12TH INDUSTRIAL ADVISORY PANEL (IAP) MEETING

Welcome to the new appointment of Industrial Advisory Panel (IAP). A discussion with the Department's IAP was held on 22nd October 2021 in helping to improve the quality of programs and working together in expanding the industry and alumni network for the benefit of students and the department.

GOVERNMENT REPRESENTATIVES



TS. AZREEN BASIR

Director
Crop Quality Control Division,
Department of Agriculture
Malaysia (DOA)



**DR. MOHD AZWAN
MOHD BAKRI**

Head of Engineering and
Mechanisation
Engineering & Processing
Research Division
Malaysian Palm Oil Board (MPOB)



**MR. ZAIPUDIN
MOHAMAD**

Director
Engineering Division,
Farmer's Organization Authority
(LPP)

INDUSTRY REPRESENTATIVES



**DR. NURULJANNAH
KHAIRUDDIN**

Research and Development
Engineer
Business and Sales
Development Department,
Green Lagoon Technology
Sdn Bhd



GS. DR. LAILI NORDIN

Director



IR. YONG HONG LIANG

Director



**MR. MOHD REZA
DZULKIFLEE**

Vice President

ALUMNI REPRESENTATIVES



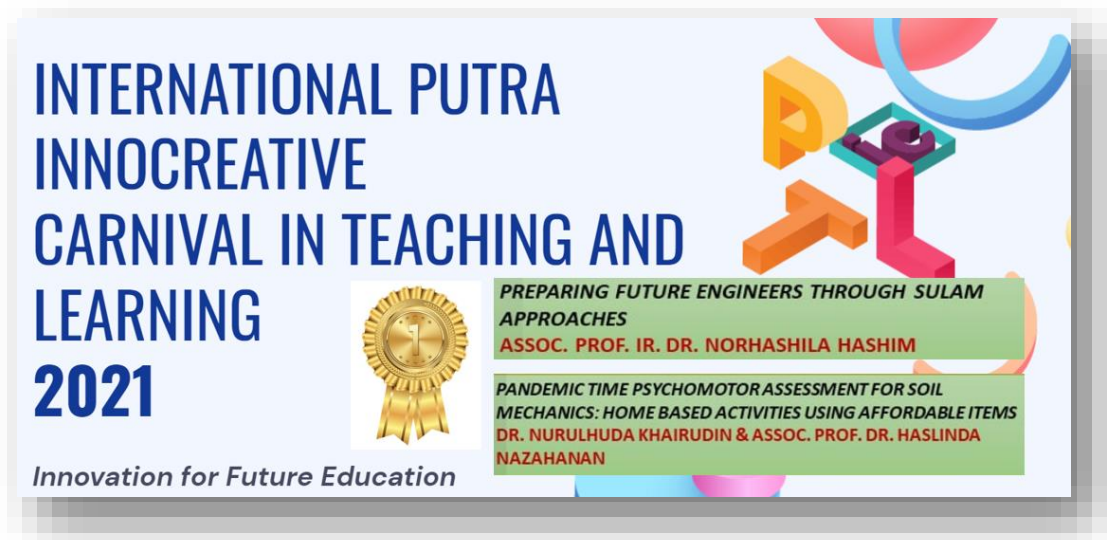
MR. HASBULLAH SALIM

Plant Manager
Gas District Cooling (M)
Sdn Bhd -Putrajaya



MR. ZUL HAKIMI MOKHTAR

Manager
MaiKebun



Congratulations to Assoc. Prof. Ir. Dr. Norhashila Hashim and Dr. Nurulhuda Khairudin for winning the Gold Medal in Putra InnoCreative Carnival in Teaching and Learning (PicTL 2021)!

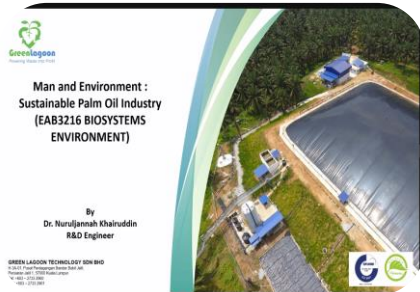
INDUSTRIAL TRIP



EAB4205: Controlled Environment industrial trip to MSD Innovation Sdn. Bhd.

Students are exposed to Smart Urban Farming Systems using nutrient film technique (NFT) with vertical structure and Dutch bucket inside a greenhouse for vegetable and crops such as mustard, kailan, chili and brinjal equipped with IoT. This IoT systems able to monitor and adjust the crop environment such as temperature, humidity, EC, pH, carbon dioxide and light.

INDUSTRIAL TALK



Man and Environment: Sustainable Palm Oil Industry

EAB3216
Biosystems Environment
26 October 2021
**DR. NURULJANNAH
KHAIRUDDIN**
R&D Engineer
Green Lagoon Technology Sdn
Bhd



Prospects of Agricultural and Food Engineers: Challenges and Adaptations from Perspectives of Scholars

ENG3101
Engineering Seminar
1 November 2021
**PROF. EMERITUS IR.
DR. WAN ISHAK WAN ISMAIL**
Professor Emeritus



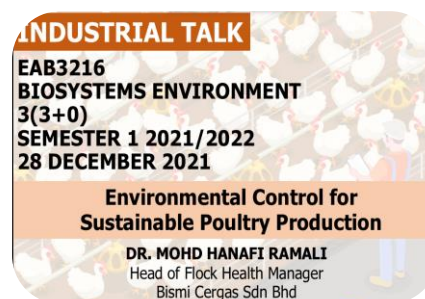
Effective Management of Your Final Year Project FYP Seminar 05

EAB4949A
Bachelor Project
17 Dec 2021
**DATUK DR. AHMAD PARVEEZ
GHULAM KADIR**
Adjunct Professor



Environmental Control for Plants - Emerging Trends and Challenges

EAB3216
Biosystems Environment
21 December 2021
**MR. MOHAMAD RAZI
MAD AMIN**
Assistant Director
Agricultural Engineering Division,
Department of Agriculture



Environmental Control for Sustainable Poultry Production

EAB3216
Biosystems Environment
28 December 2021
DR. MOHD HANAFI RAMALI
Head of Flock Health Manager
Bismi Cergas Sdn Bhd

WEBINAR AND TRAINING



UPM
UNIVERSITI PUTRA MALAYSIA
BERSEKUTU BERSAMA SAMA

ORGANIZER



UPM
UNIVERSITI PUTRA MALAYSIA
BERSEKUTU BERSAMA SAMA



IEM
The Institution of Engineers, Malaysia

CO-ORGANIZER



IEM
The Institution of Engineers, Malaysia

Department of Biological and Agricultural Engineering

DBAE Webinar series

IOT for Agriculture, How Do I Start Designing One?





PANEL
Ir. Amir Hussein Bin Jaafar
The Institution of Engineers, Malaysia



PANEL
Ir. Chai Chen Sing
The Institution of Engineers, Malaysia



MODERATOR
Assoc. Prof. Dr. Samsuzana Abd Aziz
Universiti Putra Malaysia



5

5 October 2021 (Tuesday)
3.00 pm - 5.00 pm





Meeting ID: 973 1267 2011
Password: 455548

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 @uputramalaysia


 instagram.com/uniputramalaysia

 youtube.com/user/bpppm



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BUSINESS RESEARCH



UPM
UNIVERSITI PUTRA MALAYSIA


Organiser: Department of Biological and Agricultural Engineering
Co-organiser: SMART Farming Technology Research Centre (SFTRC)

LIFE CYCLE ASSESSMENT (LCA)

Online training

21st December 2021
9 am – 5 pm


SPEAKER




Dr. Daniel I Onwude
Research Scientist, EMPA, Switzerland

TENTATIVE


<p>8.50 am - 9 am</p> <p>9 am - 9.10 am</p> <p>9.10 am - 11.30 am</p> <p>11.30 am - 12.30 pm</p> <p>12.30 pm - 2.00 pm</p> <p>2.00 pm - 4.00 pm</p> <p>4.00 pm - 5.00 pm</p>	<p>Attendance registration</p> <p>Welcoming speech</p> <p>Overview of LCA</p> <p>Q & A Session</p> <p>Lunch break</p> <p>Hands-on learning</p> <p>Q & A Session</p>
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E-certificate will be issued upon completion of the course



REGISTRATION & PAYMENT:



SCAN HQ OR
CLICK THIS LINK
https://docs.google.com/forms/u/0/edit?c=6Sx7YBAKx0Pu_vXc1cYwM13z7f9gWn6fPZ_1y8T1Mxw0SAIviewform?usp=pp_url

Zoom link will be provided to registered participants

Registration close at
4pm, 20th December 2021

FOR INQUIRY EMAIL:

sharence@upm.edu.my

nuratikahmohidem@upm.edu.my

FEE 1 MYR 150 per pax

FYP DAY 2021

UPM Final Year Project (FYP) Day is a yearly event held for UPM final year engineering students to display and share their project work to experts and panelists from the industry. It is also a platform for engineering students to exchange ideas and gain valuable industrial perspectives on their projects from the industry. Winners for Gold, Silver and Bronze medal award were selected from four options based on their presentation to the panelist from industry.

Congratulations to all winners!



Congratulations!



OPTION	NAME	PROJECT TITLE	SUPERVISOR
MECHANISATION AND AUTOMATION	RATNA FATINAH BINTI MOHAMMAD BASRI	DESIGN AND DEVELOPMENT OF PORTABLE BIOGAS DIGESTER FOR DOMESTIC USE	DR. ANAS B. MOHD MUSTAFAH
AGRICULTURAL INFORMATICS	PUTRI ALISYA BINTI MEGAT SHAMROL SHAH	IDENTIFICATION OF BASAL STEM ROT DISEASE IN OIL PALM SEEDLINGS USING THERMAL IMAGING TECHNIQUE	DR. NUR AZUAN HUSIN
POSTHARVEST AND ENVIRONMENT	NUR ZAFIRAH MOHD SOPI	OPTIMIZATION OF ULTRASONIC PRE-TREATMENT PRIOR TO SOXHLET EXTRACTION FOR ESSENTIAL OIL FROM CITRUS HYSTRIX	DR. MUHAMMAD HAZWAN B. HAMZAH
SOIL AND WATER RESOURCES	MELISSA CHEW FUI YEN	PREDICTING THE EFFECTS OF CLIMATE CHANGE ON FISH GROWTH PERFORMANCE OF RED HYBRID TILAPIA (OREOCHROMIS SPP.) IN AQUACULTURE POND THROUGH THE IMPLICATION OF THERMAL GROWTH COEFFICIENT MODEL (TGC)	DR. NORULHUDA BT. MOHAMED RAMLI



Congratulations!



OPTION	NAME	PROJECT TITLE	SUPERVISOR
MECHANISATION AND AUTOMATION	MUHAMAD SYAHIR BIN SHAHIBULLAH	EARLY DETECTION OF GANODERMA BONINENSE AT OIL PALM SEEDLING USING SPECTRAL PROPERTIES AND SUPPORT VECTOR MACHINE TECHNIQUES	ASSOC. PROF. DR. SITI KHAIRUNNIZA BT. BEJO
AGRICULTURAL INFORMATICS	EE ZU ER	A WEB-BASED IOT MONITORING AND SERVICE SYSTEM FOR AGRICULTURAL APPLICATIONS	ASSOC. PROF. DR. SAMSUZANA BT. ABD AZIZ
POSTHARVEST AND ENVIRONMENT	NURUL NAJIAH BINTI YUSOF	AN OPTIMIZATION MODEL FOR CONVERSION OF FOOD WASTE INTO POULTRY PELLET	DR. MOHAMAD FIRDZA B. MOHAMAD SHUKERY
SOIL AND WATER RESOURCES	VANESSA NATALIE ANAK ACHON	CCTV BASED WATER LEVEL 3D MODEL FOR FLOOD MONITORING	ASSOC. PROF. DR. AHMAD FIKRI B. ABDULLAH



Congratulations!



OPTION	NAME	PROJECT TITLE	SUPERVISOR
MECHANISATION AND AUTOMATION	MUHAMMAD NUR SYAWAL BIN MAULAN	DEVELOPMENT OF SMART MANAGING APPS FOR PADDY FARMERS AT NORTH WEST SELANGOR RICE SCHEME	PROFESOR IR. DR. AZMI B. DATO'YAHYA
AGRICULTURAL INFORMATICS	YAP CHING YEE	EVALUATION OF ROASTED COFFEE BEAN QUALITY USING MACHINE LEARNING	DR. MAHIRAH BT. JAHARI
POSTHARVEST AND ENVIRONMENT	SUHASTUTI BINTI DERMAWAN	OPTIMAL ELECTRICITY GENERATION PLANNING FROM OIL PALM BIOMASS FOR SUSTAINABLE BIOMASS MANAGEMENT.	DR. MOHAMAD FIRDZA B. MOHAMAD SHUKERY
SOIL AND WATER RESOURCES	WAN AFRINA BINTI WAN NOR AZMIN	RAINWATER HARVESTING (RWH) DESIGN FOR A PLANT FACTORY	DR. AIMRUN WAWOK

FYP DAY 2021 PANELLIST (KBP)

MECHANISATION AND AUTOMATION

- **DR. MOHD AZWAN MOHD BAKRI**
Head of Engineering And Mechanisation
Malaysian Palm Oil Board (MPOB)
- **IR. DR. NORBAITI JARABE**
General Manager
Kuala Lumpur Kepong (KLK)

AGRICULTURE INFORMATICS

- **MR. JIN XI CHEONG**
Chief Executive Officer
Poladrone Malaysia
- **MRS. NORHASNITA YUZANI YUSOF**
Chief Assistant Director Secretary
Plant Biosecurity Division
Terengganu Department of Agriculture

POSTHARVEST AND ENVIRONMENT

- **DR. NURULJANNAH BINTI KHAIRUDDIN**
Research and Development
Green Lagoon Technology Sdn Bhd
- **MRS. RUHAIDA BINTI MAT TUKIRAN**
Deputy Director I
Engineering Section Farmers' Organisation Authority (LPP)

SOIL AND WATER RESOURCES

- **MR. EDDY HERMAN BIN SHARU**
Research Officer
Engineering Research Centre (ER) MARDI
- **MR. MUHAMMAD AIDIL HAKIM MHD RAMZAM**
Groundwater Engineer
Sepakat Geohydro Resources

STUDENT ACTIVITIES & ACHIEVEMENTS



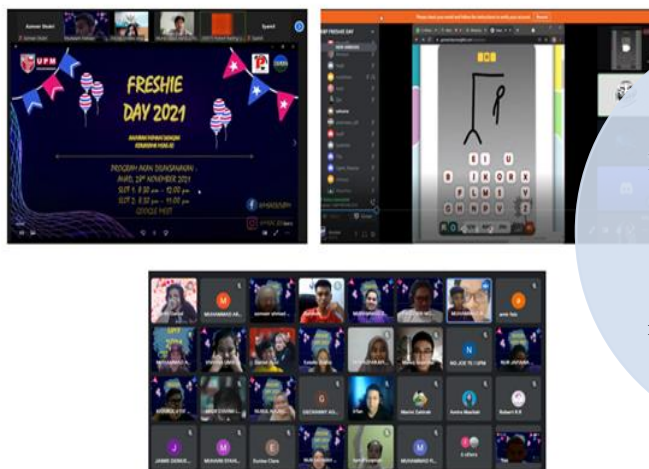
MAJLIS APRESIASI PELAJAR TAHUN AKHIR (9 OCTOBER 2021)

The Appreciation Ceremony was held to give recognition to final year students who have achieved outstanding success academics and co-curriculum.



LEADER IN ME (14 NOVEMBER 2021)

- Leader In Me is a program specially designed to provide detailed information to each MSAA-SC committee member on the document procedure of a program.



FRESHIE DAY (28 NOVEMBER 2021)

Freshie Day is a program to celebrate the freshmen of (Year 1) Agricultural & Biosystems Engineering. There are various activities provided to strengthen the relationship between fellow students.



ENTREPRENEUR TALK (18 DECEMBER 2021)

Entrepreneur Talk aims to give students the opportunity to learn in depth the knowledge of entrepreneurship in the field of agriculture from experienced individuals to provide direction to students after graduation.



BOLA 4 PENJURU

(19 DECEMBER 2021)

The football competition between male students of Agricultural and Biosystems Engineering. The competition was held at Padang Kolej 10 UPM and the participants involved Year 1, 2, 3, and 4 students.



Soil sampling and investigation conducted by students at Hutan Simpan Ayer Hitam (HSAH), Puchong, also known as Sultan Idris Shah Forestry

ANNUAL REGIONAL CONVENTION (ARC) 2021



UPM UNIVERSITI PUTRA MALAYSIA
50th ANNIVERSARY

Congratulations

for the outstanding achievement

7th SOUTHEAST ASIAN AGRICULTURAL ENGINEERING STUDENT CHAPTER ANNUAL REGIONAL CONVENTION 2021

GOLD AWARD

Portable poultry automatic feeder
Muhammad Hakimi Razali,
Muhammad Syahir Shahibullah,
Nurul Najihah Yusof, Mahirah Jahari
(Poster and model construction video)

PUTRA GREEN vertical farming model
Jeremiah Balang Sang,
Nur Khairunhazwani Zamri, Tenny Kubu,
Muhammad Hazwan Hamzah,
Diyana Jamaludin
(Model construction video)

Facebook: [facebook.com/UPMMalaysia](https://www.facebook.com/UPMMalaysia)
Twitter: [@upm_malaysia](https://twitter.com/upm_malaysia)
Instagram: [instagram.com/upm_malaysia](https://www.instagram.com/upm_malaysia)
YouTube: [youtube.com/user/upmputra](https://www.youtube.com/user/upmputra)

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BILAL MUHAMMAD



UPM UNIVERSITI PUTRA MALAYSIA
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Congratulations

for the outstanding achievement

7th SOUTHEAST ASIAN AGRICULTURAL ENGINEERING STUDENT CHAPTER ANNUAL REGIONAL CONVENTION 2021

SILVER AWARD

The vertical farming model: A sustainable PUTRA GREEN community outreach project
Jeremiah Balang Sang, Nur Khairunhazwani Zamri, Tenny Kubu, Muhammad Hazwan Hamzah, Diyana Jamaludin
(Poster)

Fixed distance pineapple planter
Kelvin Niyok, Vikneswaran Jeya Kumaran, Nur Firdaanna Suhaik, Anas Mohd Mustafah,
Wan Nor Zanariah Zainol
(Model construction video)

IoT based monitoring system for empurau fish farming (FISHIoT)
Ee Zu Er, Mohd Norazsyam Azman, Nurshahida Azreen Mohd Jais, Muhammad Ghulam Ghouse, Abdul Rashid Mohamed Shariff
(Model construction video)

Hill rice seedling tool
Harryjoy Lian Jack, Melissa Chew Fui Yen, Anathasia Bejut Ak Sandai, Sharence Nai Sowat, Wan Nor Zanariah Zainol
(Model construction video)
Special award: The Most Favorite in sub-theme Agricultural Engineering

Azolla pinnata vertical farming system
Muhammad Nur Syawal Maulan, Nurul Najihah Zulkifli, Nurul 'Awatif Mohamad Bekari, Norulhuda Mohamed Ramli
(Model construction video)

Sophorolipid application supports biotechnology
Hasanah Johari, Nur 'Aliah Hanani Mohd Baktiar, Siti Suhaila Mohd Akbar, Mohd Nazren Radzuan
(Research output video)

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Twitter: [@upm_malaysia](https://twitter.com/upm_malaysia)
Instagram: [instagram.com/upm_malaysia](https://www.instagram.com/upm_malaysia)
YouTube: [youtube.com/user/upmputra](https://www.youtube.com/user/upmputra)

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Congratulations to all winners and participants of 7th Southeast Asian Agricultural Engineering Student Chapter, Annual Regional Convention (ARC) 2021!
May this success motivate and inspire other students to join this competition next year in ARC 2022.

RESEARCH & PUBLICATION



Congratulations to Maimunah Mohd Ali and team for the Special Award and Gold Medal Award received from The International Invention Innovation Competition in Canada, (iCAN)!



Smart Technology for Paddy Cultivation (The Malaysian Experience)

now can be purchase at

Shopee

<https://shopee.com.my/Smart-Technology-for-Paddy.../>

Lazada

<https://www.lazada.com.my/products/i2513355569.html?spm=a1zawi.20038917/>

PG Mall

<https://pgmall.my/Smart-Technology-for-Paddy-Cultivation...>

RESEARCH HIGHLIGHTS

Comparison of Drying Performance between Large and Medium-Sized Mobile Dryers for In-Field Drying of Grain Corn



Assoc. Prof. Dr. Nazmi Mat Nawi

This study was undertaken to compare the drying performance between medium-sized (3 tonnes) and large-sized (7 tonnes) mobile dryers which were used to reduce grain moisture content of field corn from approximately 25% to 14%. The field corn was planted in Food Production Zone, Felda Chemplak, Johor. This study examined the effect of drying time on fuel consumption and moisture reduction at three different drying temperatures; 60, 70 and 80°C. The results showed that the medium-sized mobile dryer consumed 43.6, 30.3 and 24.1 L/t of fuel to dry the grain at temperatures of 60, 70 and 80°C, respectively. For the large-sized mobile dryer, it consumed 36.6, 34.9 and 31.7 L/t of fuel at drying temperatures of 60, 70 and 80°C, respectively. At the specified drying temperatures, the large-sized mobile dryer took 13.1, 11 and 9.1 hr to dry the grain. In addition, the results also showed that the optimal drying temperature for both dryers was 80°C. The large-sized mobile dryer utilized 24% more fuel than the medium-sized mobile dryer to dry one tonne of grain. In terms of drying time, the large-sized mobile dryer required 55% longer time to finish each batch of grain drying than the medium-sized mobile dryer. It may be deduced that the medium-sized mobile dryer is more cost effective than the large-sized mobile dryer for in-field grain drying.



INDUSTRY LINKAGE AND COMMUNITY OUTREACH



Urban Agrischool Greenwall Module

The program was conducted at SMK Pengerang Utama Johor where the Urban Agrischool team of the Department of Biological and Agricultural Engineering helped to develop a greenwall structure in the school area. The Greenwall measuring 30 feet long x 8 feet high can accommodate 220 hanging pots equipped with drip irrigation system that is controlled by a timer.

This green wall support the learning of agricultural students in school as well as be a focal point in greening the school area. Participants were exposed to plant care and monitoring techniques as well as irrigation systems. Two modules on Urban Agriculture Education through the Green Wall Concept were also successfully published and copyrighted by UPM.

This program has received joint support and funding from the Smart Farming Technology Research Center and the JINM Unit of the Faculty of Engineering, UPM. In addition, the Urban Agrischool program has also received support and sponsorship from government agencies and several local companies such as:

1. FELDA Lok Heng Timur
2. Kean Beng Lee Industries (M) Sdn Bhd (BABA)
3. Farmer Boy Smart Grow Farm
4. Tan Agricultural Appliance Business
5. Elite Gears Malaysia
6. Citiaxing Sdn Bhd Company
7. Johor State Department of Agriculture



Visit by Pahang Skills Development Center

The KBP Department received a courtesy call from the on 1 Nov 2021 to discuss the potential for cooperation between KBP-Pahang Skills in developing training modules and the formation of a Center of Excellence. The Pahang Skills delegation consists of the Executive Director, Deputy Executive Director, Divisional Director and Manager of the Pahang Skills Center of Excellence.

EDITORIAL BOARD

- Advisor | Assoc. Prof. Ir. Dr. Norhashila Hashim
- Editor-in-Chief | Dr. Diyana Jamaludin
- Editors |

Dr. Muhammad Hazwan Hamzah

Assoc. Prof. Dr. Nazmi Mat Nawi

Dr. Anas Mohd Mustafah

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Department of Biological and Agricultural Engineering



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WITH KNOWLEDGE WE SERVE