



# ICAgBio 2024

24<sup>th</sup> & 25<sup>th</sup> September 2024  
 International Conference on Agritechology & Bioprocessing Innovation  
 Fostering Sustainability through Emerging Trends in Agriculture Technology and Bioprocessing

## CONFERENCE SCHEDULE INTERNATIONAL CONFERENCE ON AGRITECHNOLOGY & BIOPROCESSING INNOVATION (ICAgBio) 2024

### DAY 1: 24<sup>th</sup> SEPTEMBER 2024 (TUESDAY)

TIME	ACTIVITIES			
08:00-09:00	Registration			
09:00-09:10	Opening Ceremony by Master of Ceremony			
09:10-09:25	<b>Welcoming Remarks</b> <b>Professor Dr. rer. Nat. Hesham Ali El-Enshasy</b> Director of Innovation Centre in Agritechology for Advanced Bioprocessing (ICA) Universiti Teknologi Malaysia (UTM) Kampus Pagoh  <b>Welcoming Remarks and Officiates</b> <b>Prof. Dr. Rosli Md Illias</b> Deputy Vice Chancellor (Research and Innovation) Universiti Teknologi Malaysia (UTM)  Montage presentation Photo session			
09:25-10:15	<b>Keynote Session 1</b> How do bacteria avoid the burden of various plasmids? <b>Professor Dr. Hideaki Nojiri</b> The University of Tokyo, Japan			
10:15-11:05	<b>Keynote Session 2</b> Functional Foods and Nutraceuticals: Paving the Way for Sustainable Agriculture and Health <b>Associate Professor Ts. Dr. Mohd Fadzelly Abu Bakar</b> Universiti Tun Hussein Onn Malaysia (UTHM), Malaysia			
11:05-11:15	Quiz session 1			
11:15-11:20	Closing and Announcement of Parallel Session 1			
<b>PARALLEL SESSION 1 (BREAKOUT ROOM)</b>				
11:20-13:00				
<b>THEME A</b> Agriculture Digitalization	<b>THEME B</b> 1) Sustainable Agriculture 2) Biowaste Management	<b>THEME C</b> Food Processing & Product Development	<b>THEME D</b> 1) Biotechnology in Agriculture 2) Biobased Product	
AD1 <b>Evaluation of the Hive's Climate Control Effect on Stingless Bees Meliponiculture at 30°C, 33°C, and 36°C</b> Abdul Muhaimin Mohd Shafie (Universiti Teknologi MARA)	SA1 <b>The Effects of Sheep Wool Mulch and Sheep Manure on the Fresh Yield of Napier Grass (<i>Pennisetum purpureum</i>)</b> Mohd Nadzreen Hidayat Sarjuni (Universiti Teknologi Malaysia)	FP1 <b>Challenges and Opportunities in Expanding Indonesian Ginger (<i>Zingiber officinale</i>) Exports</b> Siti Aminah (Institut Pertanian Bogor, Indonesia)	BP1 <b>Palm Oil-Based Base Oil as a Sustainable Alternative to Mineral Oils in Electric Vehicles Application</b> Dr. Mohd Muhyiddin Mustafa (Universiti Teknologi MARA)	
AD2 <b>The Assessment of Intelligent Agriculture Performance Evaluation Index System in Rural Areas</b>	SA2 <b>Sustainable Certification in the Oil Palm Industry: A Comparative Analysis of MSPO, RSPO, ISPO and ISCC Schemes</b>	FP2 <b>Consumer Behaviors and Purchase Intention for Kombucha-like Powder from <i>Phyllanthus emblica</i></b>	BP2 <b>Evaluation of Agriculture Green Development Level and Regional Differences in Shandong Province, China</b>	

website: <https://research.utm.my/ica/icagbio2024/>

email: [icagbio@utm.my](mailto:icagbio@utm.my)

organised by



in collaboration with



# ICAgBio2024 24<sup>th</sup> & 25<sup>th</sup> September 2024

## International Conference on Agritechology & Bioprocessing Innovation

Fostering Sustainability through Emerging Trends in Agriculture Technology and Bioprocessing

of Shandong Province, China An Yikun (Universiti Teknologi Malaysia)	Dr. Muhamad Zahid Muhamad (Universiti Teknologi MARA)	Nur Haniza Ewandi Jong (Universiti Tun Hussein Onn Malaysia)	Li Ruohan (Universiti Teknologi Malaysia)
AD3 <b>Smart Pineapple Farming Assistant Mobile Application on Identifying Diseases in MD2 Pineapple Cultivation</b> Dr. Siti Fairuz Nurr Sadikan (Universiti Teknologi MARA)	SA3 <b>Utilization of selected agro-waste for soilless cultivation on tomato</b> Assoc. Prof. Dr. Siti Noor Hajjar Md Latip (Universiti Teknologi MARA)	FP3 <b>Assessment of fermented Noni Juice: Microbial Enumeration, Antioxidant Activity, and Volatile Compound Analysis</b> Elvin Shivriya Dikkuruse (Universiti Tun Hussein Onn Malaysia)	BP3 <b>Phytochemical Component Identification in the Fruit Rind of <i>Garcinia parvifolia</i></b> Ahmad Iqbal Bin Noordin (Universiti Tun Hussein Onn Malaysia)
AD4 <b>Brown Planthopper Outbreak Management with Early Warning System</b> Dr. Arina Mohd Noh (Malaysian Agricultural Research and Development Institute, MARDI)	SA4 <b>Mechanization Package for Pineapple Production on Peat Soil in Malaysia</b> Adli Fikri Ahmad Sayuti (Malaysian Agricultural Research and Development Institute, MARDI)	FP4 <b>Characterization of Collagen Derived from Different Fish Species via Ultrasonic-Assisted Techniques</b> Nur Fashya Musa (Universiti Teknologi Malaysia)	BP4 <b>Antibacterial Activities of <i>Curcuma caesia</i> Roxb. Rhizome Extracts</b> Siti Juariah (Universiti Tun Hussein Onn Malaysia)
AD5 <b>Performance Evaluation of the IoT-based Coffee Bean Dryer System at Varying Temperatures</b> Mohamad Zaharudin Sariman (Universiti Teknologi MARA)	SA5 <b>Food Security Elements Evaluation on the Agricultural Sector in Rural Areas of Malaysia</b> Dr. Mohamad Fadhli Rashid (Universiti Teknologi Malaysia)	FP5 <b>Evaluation Ascorbic Acid, Total Phenolic Compound, Sensory Attributes and Proximate Analysis of <i>Phyllanthus emblica</i>-Derived Beverage</b> Norshila Md Isa (Universiti Tun Hussein Onn Malaysia)	BP5 <b>Synthesis of Fe/Ba/γ-Al<sub>2</sub>O<sub>3</sub> Catalyst for Transesterification of Low-Grade Cooking Oil for Biodiesel Production</b> Syahirah Yahya (Politeknik Tun Syed Nasir Syed Ismail)
13:00-14:30	Lunch Break		
14:30-15:10	<b>Keynote Session 3</b> Feeding The Future Sustainably: Exploring New Food Sources and Production Systems <b>Professor Dr. Purwiyatno Hariyadi</b> IPB University, Indonesia		
15:10-15:20	Quiz session 2		
15:20-15:25	Closing & Announcement of Parallel Session 2		
<b>PARALLEL SESSION 2 (BREAKOUT ROOM)</b>			
<b>15:25-17:00</b>			
<b>THEME A</b> Agriculture Digitalization	<b>THEME B</b> 1) Sustainable Agriculture 2) Biowaste Management	<b>THEME C</b> Food Processing & Product Development	<b>THEME D</b> 1) Biotechnology in Agriculture 2) Biobased Product
AD6 <b>Classification of Water Bodies in Paddy Field Using Unmanned Aerial Vehicle Based Remote Sensing Imagery</b>	SA6 <b>Exopolysaccharide from <i>Lactobacillus paracasei</i> Isolated from Pineapple on its Functional Properties</b>	FP6 <b>Comparative Study of Freezing and Sterilizing Methods for Ginger Puree</b> Sharifah Hafiza Mohd Ramli (Malaysian)	BP6 <b>Preparation of Activated Carbon derived from Water Treatment Sludge activated via</b>

website: <https://research.utm.my/ica/icagbio2024/>

email: [icagbio@utm.my](mailto:icagbio@utm.my)

organised by



in collaboration with



# ICAgBio2024 24<sup>th</sup> & 25<sup>th</sup> September 2024

## International Conference on Agritechology & Bioprocessing Innovation

Fostering Sustainability through Emerging Trends in Agriculture Technology and Bioprocessing

Dr. Teoh Chin Chuang (Malaysian Agricultural Research and Development Institute, MARDI)	<b>and Physicochemical Characteristics</b> Dr. Nor Zalina Othman (Universiti Teknologi Malaysia)	Agricultural Research and Development Institute, MARDI)	<b>Carbonization using Superheated Steam</b> Nur Alya Nabilah Jamal (Universiti Putra Malaysia)
AD7 <b>Optimization of Algae Photobioreactor Cultivation and Detection using Multispectral Imaging and Machine Learning</b> Keshinro Kazeem Kolawole (Universiti Teknologi Malaysia)	SA7 <b>Managing Farm Agro Waste in Rural Areas: Emerging Potentials and Challenges of Biochar Production and Use among Smallholders</b> Dr. Khairul Hisyam Kamarudin (Universiti Teknologi Malaysia)	FP7 <b>Ultrasonicated of Shortfin Scad (<i>Decapterus Macrosoma</i>) Waste Protein Hydrolysate for Potential Food Supplement: Techno-functional Properties, Microstructure and Antioxidant Activity</b> Assoc. Prof. Dr. Norizah Mhd Sarbon (Universiti Malaysia Terengganu)	BP7 <b>Isolation, Identification and Antagonistic Activity by Potassium Solubilising Bacteria (KSB) from Forest Soil on Oil Palm Pathogen, <i>Ganoderma boninense</i></b> Dr. Salwa Abdullah Sirajuddin (Malaysian Palm Oil Board)
AD8 <b>Development of Internet of Things (IoT) Based Monitoring and Control System for Kelah Fish</b> A Rafidah A Mohd Yunus (Universiti Teknologi Malaysia)	SA8 <b>Elucidating The Use of Paddy Waste (Rice Bran) in Poultry Feed to Improve Broiler's Meat Quality</b> Tuan Badli Shah Tuan Jusoh (Universiti Selangor)	FP8 <b>Cooking Quality, Physicochemical and Sensory Properties of Fresh Pasta Incorporated with Rice Bran</b> Dr. Nor Akma Ismail (Universiti Malaysia Terengganu)	BP8 <b>Impact of Light Conditions on the Growth and Physiological Characteristics of <i>Talinum fruticosum</i> Callus</b> Shahril Efzueni Rozali (Universiti Malaya-Wales)
AD9 <b>An Enhanced Genetic Algorithm for Solving the Capacitated Vehicle Routing Problem Using Cluster-Based Optimization and 2-Opt Refinement</b> Abubaker Ahmed Badi (Universiti Teknologi Malaysia)	SA9 <b>A Review: Feed for Malaysian mahseer, <i>Tor tambroides</i> (Bleeker, 1854) Cultured in Captivity</b> Norfakhrina Mohd Noor (Universiti Malaysia Terengganu)	FP9 <b>Effects of Bromelain Enzyme on the Texture, Protein Content, and Cooking Quality of Marinated Lamb Meat</b> Dr. Siti Nor Azlina Abd Rashid (Universiti Teknologi Malaysia)	BP9 <b>Integration of MgFe Layered Double Hydroxide on The Surface of Tea Stalk Based Activated Carbon for Enhanced Cd(II) Adsorption</b> Erniza Mohd Johan Jaya (Universiti Sains Malaysia)
AD10 <b>Smart Pineapple Farming in Peatland: IoT-Based Early Warning System for Monitoring Fire Vulnerability</b> Ratu Mutiara Wulandari (IPB University, Indonesia)	SA10 <b>A Semi-Continuous Sub-Critical Water Process for Recovery of Palm Oil and Valuable Material from Oil Palm Empty Fruit Bunch (EFB)</b> Nareen Ponneswaran (Universiti Putra Malaysia)		
17:00	Closing Session by Master of Ceremony End Day 1		

website: <https://research.utm.my/ica/icagbio2024/>

email: [icagbio@utm.my](mailto:icagbio@utm.my)

organised by



in collaboration with



# ICAgBio2024 24<sup>th</sup> & 25<sup>th</sup> September 2024

## International Conference on Agritechology & Bioprocessing Innovation

Fostering Sustainability through Emerging Trends in Agriculture Technology and Bioprocessing

### DAY 2: 25<sup>TH</sup> SEPTEMBER 2024 (WEDNESDAY)

TIME	ACTIVITIES		
08:00-09:00	Registration		
09:00-09:50	Welcoming Speech by Master of Ceremony  <b>Keynote Session 4</b> Precision Farming 4.0 - Challenges and the Way Forward <b>Associate Professor Ir. Dr. Mohamad Shukri Zainal Abidin</b> Universiti Teknologi Malaysia, <u>Malaysia</u>		
09:50-10:35	<b>Keynote Session 5</b> Climate change mitigation strategies in agriculture <b>Professor Dr. Muhammad Arshad Javed</b> University of the Punjab, <u>Pakistan</u>		
10:35-10:45	Quiz session 3		
10:45-10:50	Announcement of Parallel Session 2 by Master Ceremony		
<b>PARALLEL SESSION 3 (BREAKOUT ROOM)</b>			
<b>10:50-11:50</b>			
<b>THEME B</b>	<b>THEME C</b>	<b>THEME D</b>	
1) Sustainable Agriculture 2) Biowaste Management	Food Processing & Product Development	1) Biotechnology in Agriculture 2) Biobased Product	
SA11 <b>Green Synthesis of Selenium Nanoparticles using Leaves Extract of <i>Psidium guajava</i></b> Nur Amalina Mohd Ropi (Universiti Teknologi Malaysia)	FP10 <b>Quercitrin Extract from <i>Cosmos caudatus</i> Kunth by Ultrasonic-Assisted Extraction</b> Dr. Norliza Abdul Latiff (Universiti Teknologi Malaysia)	BP10 <b>Metabolic Cooperation &amp; Transcriptomic Response of <i>Comamonas</i> Strain R2 in the Phenol Biodegradation Engineered Ecosystem</b> Dr. Abd Rahman Jabir Mohd Din (Universiti Teknologi Malaysia)	
SA12 <b>Yield and Quality Evaluation of Vertical-Grown Microgreens Cultivated on Different Substrates</b> Suhir Sulaiman (Universiti Teknologi Malaysia)	FP11 <b>Enzyme-assisted Citric Acid Extraction of Pectin from Red-Purple Pitaya Peel</b> Dr. Majida Al-Ezzi (University of Baghdad, Iraq))	BP11 <b>Molecular Cloning and Characterization of Lignin-Related myB Genes from Oil Palm (<i>Elaeis guineensis</i> Jacq. <i>Pisifera</i>)</b> Mohd Farhan Azhari (Universiti Teknologi MARA)	
SA13 <b>Optimizing the Biosynthesis of Silver Nanoparticles using <i>Garcinia mangostana</i> Pericarp for Tetracycline Degradation</b> Nurshahira Mohd Rozi (Universiti Teknologi Malaysia)	FP12 <b>Halal Authentication of Animal-Derived Fatty Acids using FTIR-ATR Spectroscopy and the Principal Component Analysis Approach</b> Muhammad Zulhelmi Nazri (Universiti Teknologi Malaysia)	BP12 <b>Assessment of <i>Bemisia tabaci</i> (Hemiptera: Aleyrodidae) Incidence on Lowland Bell Pepper (<i>Capsicum annum</i> L.) and the Effectiveness of Conventional Pesticides and Local Entomopathogenic Fungi</b> Wan Muhammad Azrul Wan Azhar (Malaysian Agricultural Research and Development Institute, MARDI)	
SA14 <b>Effect of Light Conditions and Substrates on Agronomic Characteristics and Antioxidant Quality of Microgreens</b>			

website: <https://research.utm.my/ica/icagbio2024/>

email: [icagbio@utm.my](mailto:icagbio@utm.my)

organised by



in collaboration with





# ICAgBio2024

24<sup>th</sup> & 25<sup>th</sup> September 2024  
 International Conference on Agritechology & Bioprocessing Innovation  
 Fostering Sustainability through Emerging Trends in Agriculture Technology and Bioprocessing

Mohd Farid Ismail (Universiti Teknologi Malaysia)	
11:50-13:00	Judging session
13:00-14:30	Lunch Break
14:30-15:00	<b>Closing ceremony</b> <b>Associate Professor Ir. Dr. Norzita Ngadi</b> Deputy Director (Research & Innovation) / Academic & Student) of Universiti Teknologi Malaysia (UTM) Pagoh Campus  Announcement of Winners
15:00	End Day 2

website: <https://research.utm.my/ica/icagbio2024/>

email: [icagbio@utm.my](mailto:icagbio@utm.my)

organised by



in collaboration with

