



# INTERNATIONAL CONFERENCE ON AGROTECHNOLOGY, BEVERAGE AND FOOD (ICABF 2023)

In Conjunction With  
International Congress on Technology  
Universiti Teknologi Brunei  
23-25 October 2023



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***"Technology for Future Agriculture, Beverage and Food  
Manufacturing"***

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International Conference on Agrotechnology, Beverage and Food 2023  
Universiti Teknologi Brunei  
Jalan Tungku Link Gadong  
BE1410 Brunei Darussalam

DAY 1  
23<sup>rd</sup> October

DAY 2  
24<sup>th</sup> October

DAY 3  
25<sup>th</sup> October

Time	Programme	Venue
8.00	Registration & Networking	Sepakat 6
9.00	<b>Conference Inauguration</b>	
9.15	<b>Plenary Session</b>	
10.00	Refreshment Break	
10.30	<b>Keynote Address 1</b>	
11.15	<b>Keynote Address 2</b>	
12.00	Lunch Break	
13.30	<b>Contributed Talks – Session #1</b>	
15.00	Refreshment Break	
15.30	<b>Contributed Talks – Session #2</b>	



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## PLENARY AND KEYNOTE SESSIONS

**Plenary and Keynote Chair: Prof Dr Beston Nore**

**Time: 9:15 am – 12:00 pm**

### Plenary Session

**Speaker:** Prof Dr Yonathan Asikin

**9.15** Faculty of Agriculture, University of the Ryukyus, 1-Senbaru, Nishihara, Okinawa, Japan

**Title:** *In-vivo* Aroma Release and Flavour Characteristics of Non-centrifugal Cane Sugar

**10.00** Refreshment Break

### Keynote Address 1

**Speaker:** Prof Dr Tan Chin-Ping

**10.30** Faculty of Food Science and Technology, Universiti Putra Malaysia, Selangor, Malaysia

**Title:** Preparation, Characterization, and Application of Micro- and Nano-Structured Functional Lipids for Bioactive Food Ingredients

### Keynote Address 2

**Speaker:** Prof Dr Utai Klinkesorn

**11.15** Faculty of Agro-Industry, Kasetsart University, Bangkok, Thailand

**Title:** Valorization of Rambutan (*Nephelium lappaceum* L.) Kernel as Edible Fat Source: Extraction, Modification and Application in Foods



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**Contributed Talks – Session #1**

**Theme 1: Food Product Innovation and Development**

**Session Chair: Prof Dr Tan Chin-Ping**

**Time: 1:30 pm – 3.00 pm**

ICABF-002

**13.30** Formulation of Naturally Flavoured Mineral Water with *Curcuma Longa*  
*Zumirra Affno, Aida Maryam Basri and Beston Faiek Nore*

ICABF-003

**13.50** Developing Herbal-Based Beverage Fermentation using *Saccharomyces Cerevisiae*: The Physico-Chemical Properties  
*Siti Madihah Mohd-Don, Masmunira Rambli and Beston Faiek Nore*

ICABF-004

**14.10** Development of *Halalan Tayibban* Plant-Based Cheese Formulations  
*Hasna Basirah Mazalan, Masmunira Rambli, Syazana Abdullah Lim and Beston Faiek Nore*

ICABF-013

**14.30** Evaluation of Physicochemical Properties of Low-Fat Chicken Sausages containing Whey Protein Isolate and Guar Gum  
*Nur Hamizah Hamid and Namasivayam Navaranjan*



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## Contributed Talks – Session #2

### Theme 2: Agricultural Engineering and Technology

Session Chair: Prof Dr Utai Klinkesorn

Time: 3:30 pm – 5.00 pm

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- ICABF\_010  
15.30 Exploring the Impact of Vented Packaging Configurations on Airflow Patterns and Cooling Consistency for Muskmelons in a Cold Storage Environment  
*Nur Wafidah Roslan, Namasivayam Navaranjan, Zohrah Sulaiman and Naseem Uddin*
- 
- ICABF\_012  
15.50 Recent Advances in Biodegradable Packaging from Banana Plant Feedstock: A Comprehensive Review  
*Muhammad 'Atiq Juani and Namasivayam Navaranjan*
- 
- ICABF\_016  
16.10 The Effect of Biochar from Plant Materials on Agricultural Acid Sulfate Soil: A Laboratory Incubation  
*Syazwan Sulaiman, Namasivayam Navaranjan, Guillermo Hernandez-Ramirez, Zohrah Sulaiman and Kathereen Liew*
- 
- ICABF\_025  
16.30 Direct Blue 86 Textile Dye Removal from Aqueous Solution Direct Blue 86 Textile Dye Removal from Aqueous Solution using Rice Husk-Based Adsorbent  
*M. Zulbahari M. Zu, Muhammad Raza Ul Mustafa, Mohamed Hasnain Isa, Teh Sabariah Binti Abd Manan, Naimah Ibrahim, Rozeana Hj Md Juani, Wida Susanty Hj Suhaili, Asmaal Muizz Salleh Bin Hj Mohammad Sultan and Zuliana Binti Hj Nayan*
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Time	Programme	Venue
8.00	STE CONNECT 2023 - Registration	
9.00	<b>STE CONNECT 2023 - Opening Ceremony</b>	
10.00	Refreshment Break	
10.30	<b>STE CONNECT 2023 – Plenary Sessions</b>	
12.00	Lunch Break	
13.30	<b>Contributed Talks – Session #3</b>	Sejati 4
15.00	Refreshment Break	
15.30	<b>Contributed Talks – Session #4</b>	



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**Contributed Talks – Session #3**

**Theme 3: Innovative Analytical Techniques and Food Characterisation**

**Session Chair: Dr Masmunira Rambli**

**Time: 1:30 pm – 3.00 pm**

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- ICABF\_001  
Non-Invasive Digital Refractometer to Measure Maturation of Climacteric Fruits  
**13.30** *Jhoorhanah Abdul Halim, Denni Kurniawan, Dina Shona Laila, Allysa Norjemee, Nuur Ain Lilian Nesseruddin, Asrarul Ariffin Noraidi and Beston Faiek Nore*
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- ICABF\_015  
Unveiling the Antioxidant Properties of *Stenochlaena Palustris* and *Diplazium Esculentum* through Time-Dependent Analysis  
**13.50** *Nurnajihah Abd Samad, Hasna Basirah Mazalan, Hazimah Sharifulazar, Aida Maryam Basri and Masayoshi Arai*
- 
- ICABF\_021  
Nanocellulose Synthesized from Sugarcane Bagasse (*S. Officinarum*) Via Alkaline-mechanical Process and its Characterization  
**14.10** *Wafiqah Daim, Hiroshi Uyama and Syazana Abdullah Lim*
- 
- ICABF\_027  
Protein Content Analysis on Brunei Delicacies: Kelupis Sulang and Sulang Fruit  
**14.30** *Siti Nadia Saifullzan, Jhoorhanah Abdul Halim, Masmunira Rambli and Aida Maryam Basri*
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**Contributed Talks – Session #4**

**Theme 4: Novel Food Ingredients and Biomaterials**

**Session Chair: Dr Hong Shyang Pei**

**Time: 3:30 pm – 5.00 pm**

ICABF\_011

**15.30** Physicochemical Characterization of Edible Insect Oils: Insights into Fatty Acid Composition, Thermal Behaviour and Quality Parameters

*Eng-Tong Phuah, Shyang-Pei Hong, Yee-Ying Lee, Teck-Kim Tang and Guanghui Li*

ICABF\_017

**15.50** Unlocking Antioxidant Potential: Comparative Analysis of Sembada 188 and Keladi Rice as Functional Ingredients in Novel Food Production

*Natasha Azamain, Mas Munira Rambli and Eng-Tong Phuah*

ICABF\_022

**16.10** Assessing the Organic Acids-Solubilized Collagen derived from the Skin of Unicornfish (*Naso Reticulatus* Randall, 2011) on Physicochemical and Structural Characteristics: Toward Alternative Source for Industrial Applications

*Dayang Fazrianie Harianto, Abdul Aziz Jaziri, Rossita Shapawi, Ruzaidi Azli Mohd Mokhtar, Wan Norhana Md. Noordin, Masmunira Rambli and Nurul Huda*

ICABF\_023

**16.30** Byproducts of Tropical Marine Processing as A Candidate for Industrial Food Ingredients: An Appraisal on Macro and Micronutrients

*Abdul Aziz Jaziri, Hajariah Hasanuddin, Rossita Shapawi, Ruzaidi Azli Mohd Mokhtar, Wan Norhana Md. Noordin, Masmunira Rambli and Nurul Huda*





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Time	Programme	Venue
8.30	Contributed Talks – Session #5	Sepakat 6
10.00	Refreshment Break	
10.30	Contributed Talks – Session #6	
12.00	Lunch Break	
13.30	Contributed Talks – Session #7	
15.00	Refreshment Break	
15.30	Contributed Talks – Session #8	
16.30	Valedictory Ceremony	



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## Contributed Talks – Session #5

### Theme 5: Food Labelling, Safety and Regulations

Session Chair: Dr Phuah Eng Tong

Time: 8:30 am – 10.00 am

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- ICABF\_005
- 8.30** Food Labelling Practices of Local Products in Brunei Darussalam  
*Asrarul Ariffin Noraidi, Aida Maryam Basri, Ernina Rani and Beston Faiek Nore*
- 
- ICABF\_014
- 8.50** Strategy Implementation for Food Auditing and Its Impact: Case Study of Food Industry in Brunei  
*Nurhidayat Hj Abdullah, Dr Junaid M Shaikh, Nur Farhanah Marjuni*
- 
- ICABF\_019
- 9.10** Application of Three of Selected Medicinal Plant Extracts in Brunei Darussalam to Improve Shelf Life of Poultry Product  
*Hazirah Abd Hamid, Namasivayam Navaranjan, Zohrah Sulaiman and Aida Maryam binti Hj Basri*
- 
- ICABF\_020
- 9.30** Prevalence of Resistant *Escherichia Coli* Isolated from Local Meats Sold in Tema Metropolis, Ghana  
*Frederick Adzitey, Innocent Allan Anachinaba, Charles Addo-Quaye Brown, Masmunira Rambli and Nurul Huda*
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## Contributed Talks – Session #6

### Theme 6: Sustainable Agriculture and Farming Practices

Session Chair: Dr Hong Shyang Pei

Time: 10:30 am – 12.00 pm

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- ICABF\_006  
**10.30** Youth Resilience toward Climate Smart Agriculture Technology Adoption in Brunei Darussalam  
*Rosita Hassan, Wida S. Suhaili, Beston F. Nore and Mohamad A. Basunia*
- 
- ICABF\_007  
**10.50** Rice Farmer's Perception and Factors Influencing Intention and Attitude on Adoption of Hybrid Rice. A Comparison Between Grouped and Individual Rice Farmers in Brunei  
*Ahmad Mas'Oud Muhd Halimi and Ulaganathan Subramanian*
- 
- ICABF\_008  
**11.10** Management of Agriculture in Brunei  
*Nuramalina Manshor and Ulaganathan Subramanian*
- 
- ICABF\_009  
**11.30** Technological Advancements in Brunei's Local Agriculture and Fisheries Companies: An Exploratory Study based on Field Observations  
*Muhammad Firdaus Mujibuddin Syah Mustafa, Navaranjan Namasivayam, Fatnin Farhanah Alihan, Amni Sahilah Sahrullamzah, and Khairina Umairah Takiyuddin*
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### Contributed Talks – Session #7

#### Theme 7: Functional Food Development and Analysis

Session Chair: Prof Dr Beston Nore

Time: 1:30 pm – 3.00 pm

ICABF\_031

**13.30** Assessment of Novel Plant-Based Fat Efficiency in Comminuted Chicken Meat System

*Salma Mohamad Yusop, Shu Jo Lin, Nurkhuzaiyah Kamaruzaman and Nurlisa Mohd Azhari*

ICABF\_028

**13.50** Nutritional Quality of Cultured Giant Freshwater Prawns (*Macrobrachium Rosenbergii*)

*Nurul Fithriyani Mohamad Saifol Rizal, Najeebah Az-Zahra Tashim, Zuhairi Azahari, Aida Maryam Basri, Tiong Hoo Lim, Aqilah Junaidi, Suriayati Chuprat, Seno Adi Putra and Hanif Fakhurroja*

ICABF\_029

**14.10** Antioxidant and Antimicrobial Properties of Yellow Mealworm (*Tenebrio Molitor*) Protein Concentrates and Hydrolysates derived from Varied Dietary Regimens

*Shyang-Pei Hong, Eng-Tong Phuah, Wey-Lim Wong, Yee-Ying Lee and Teck-Kim Tang*



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## Contributed Talks – Session #8

### Theme 8: Food Processing and Engineering

Session Chair: Dr Masmunira Rambli

Time: 3:30 pm – 4.30 pm

ICABF\_018

**15.30** Preliminary Study on the Effects of Vinegar as Pre-Treatment for the Oven-Drying of Pacific Yellowtail Emperor (*Lethrinus Atkinsoni*) Fillets

*Nurisa A. Suhaili, Rafael S. Jamih, Normina A. Abubakar, Jaro O. Ajik and Merylyn Q. Amlani*

ICABF\_024

**15.50** Kinetic Modelling During Soaking of Dried Long Grain Paddy MR297

*Jhauharotul Muchlisyyah, Rosnah Shamsudin, Roseliza Kadir Basha, Radhiah Shukri, Syahmeer How and Masmunira Rambli*

ICABF\_030

**16.10** Release Behaviour of Butterfly Pea Anthocyanins from Sago Starch Micro-Composite Films under Food Stimulants

*Afiqah Nabihah Ahmad, Phuah Eng-Tong, Namasivayam Navaranjan and Syazana Abdullah Lim*