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agri news

Sustainable agriculture that drives nation

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Stingless Bee Propolis for the Benefit of Preserving Food Quality

"SELANGKAH KE ALAM KERJAYA 2022", Preparing Students for The World of Work

Gold and Silver Medals for FPSM at NaLIS 2022

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Photo by
Prof. Dr. Shamsul Bahri Abd Razak

What's Inside?

A Note from the Editor

Assalamualaikum and good day!

And so, merely four months of its public release into the cyberspace, an artificial intelligent chat bot and its variants have stirred up a contentious discussion among intellectuals and scholars. Among the popular platforms, ChatGPT is an advanced language model developed by OpenAI, designed to generate human-like text based on the input it receives.

This model is trained on a vast amount of data and uses the latest techniques in natural language processing to produce responses that are both relevant and coherent. While it is not perfect and may occasionally produce responses that are off-topic or nonsensical, it is a powerful tool for generating text in a variety of contexts.

In academic writing, ChatGPT can do many wonderful things. The bot can assist us in generating ideas, improving vocabulary, proofreading, summarizing and paraphrasing academic jargons into beautiful and meaningful sentences. This makes our lives more convenient and allows us to allocate our time towards other productive pursuits. Therefore, we no longer have any justification for not becoming accomplished writers.

This is sounding a bit scary though, at least for me. These artificial intelligences make us looks like a helpless little minion in this creepy cyberworld. We are becoming too much dependent on Technology. Some of you might remember James Cameron's blockbuster movie The Terminator, a cyborg assassin sent back in time from 2029 to 1984 to kill Sarah Connor, whose unborn son will one day save mankind from extinction by Skynet, a hostile artificial intelligence in a post-apocalyptic future. The plot is intricate, yet the film is highly enjoyable.

The technological advancements at our disposal are simply instruments that can be utilized judiciously to increase our productivity and efficiency. However, if we misuse them, we may encounter severe repercussions. Alas, our concern however isn't really that important in the grand scheme of things.

It is our hope, with the abundance of friendly chatbots available to assist us, we aspire to enhance our writing skills and create exceptional written works for the benefit of our audience.

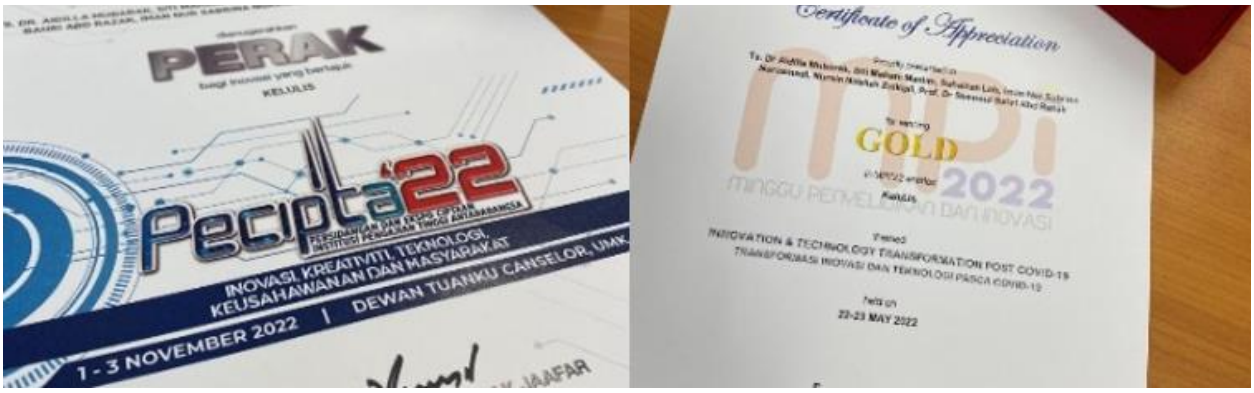
Eid Mubarak

Shamsul Bahri

Prof. Dr. Shamsul Bahri Abd Razak
Editor in Chief

STINGLESS BEE PROPOLIS FOR THE BENEFIT OF PRESERVING FOOD QUALITY

Ts. Dr. Aidilla Mubarak



Stingless bee honey has been under the spotlight in recent years due to its distinctive flavour and the bioactive components with potential health benefits. In addition to honey, the propolis from the stingless bee have also gained interest and has high commercial value. The propolis is a by-product from the stingless bee industry which has been reported for many biological roles including antioxidants and antimicrobials, attributed to compounds like polyphenols, particularly flavonoids.

This explains the interest in utilizing it in food and pharmaceutical industries. The prospect to utilize this by-product for the preservation of food quality is thought to be worthwhile.

Preserving the postharvest quality and reducing the decay of fruits and vegetables using treatments from natural sources is important to reduce losses in the food chain. This therefore encouraged our team to explore the potential of the stingless bee propolis as a postharvest treatment on chilli, a highly perishable produce. We innovated a postharvest fungicide treatment and tested the product on harvested chilli. Our innovation was found to be effective in in delaying deterioration and control anthracnose disease on harvested chilli. This innovation could replace the use of chemical fungicide which can be a more sustainable approach in the control of food quality.

The invention was presented in Minggu Penyelidikan dan Inovasi (MPI'22) and was awarded a gold medal. The invention was thereafter selected to participate in the International Conference and Exposition on Inventions 2022 (Pecipta'22) and was awarded with a silver medal. These recognitions drive us to explore more on the benefit of natural resources for the preservation of agricultural products.

Stingless bee propolis

Participation in Minggu Penyelidikan dan Inovasi 2022 (MPI, 2022), with part of the team member (from left: Ts. Dr Aidilla Mubarak, Iman Nur Sabrina Norasmadi, Nurain Nabilah Zulkipli. Team members absent in the photo: Siti Mahani Maslim, Dr Suhaizan Lob, Prof Dr Shamsul Bahri Abd Razak).

Virtual presentation delivered in the International Conference and Exposition on Inventions 2022 (Pecipta'22).

Recognition received for the innovation (gold medal in MPI 2022 and silver medal in Pecipta'22).

Biointeractions and Crop Health RIG Members Participating in the 11TH International Conference on Plant Protection in the Tropics (ICPPT), Langkawi

Phoebe Chong Sok Leng and Assoc. Prof. Dr. Siti Nordahliawate Mohamed Sidique

Over 120 participants joined the 11th ICPPT at Aloft Langkawi, Malaysia from 14 to 15 September 2022 to share their valuable research studies that were mostly done during the Covid-19 pandemic. This event was organized by Malaysian Plant Protection Society (MAPPS), and sponsored by Corteva AgriScience (Platinum sponsor) and Poladrone (Gold sponsor). The participation of Biointeractions & Crop Health Research Interest Group (BCH-RIG) was opportunely sponsored by Corteva Agriscience.

The conference sessions were overwhelming in its multidisciplinary perspective, including plant pathology, entomology, biocontrol, biosecurity, smart farming, epidemiology, modelling, good agricultural practices and more other topics related to the theme "Treasuring the Present, Sustaining the Future".

Our postgraduates, Phoebe Chong shared about "Durian monoculture orchard escalates *Phytophthora* species invasion causing stem canker disease in the Peninsular Malaysia" in the oral presentation session, while Muhammad Syazlie presented about "Physiological and biochemical attributes of new rice line (PadiU Putra) influence by foliar application of nano silicon extracted from rice husk". It was surely an eye-opening experience for both PhD students who began their research journey in the midst of the pandemic, where restrictions on conferences and workshops were in place. Discussion of research findings with peers and industry leaders, and information exchange on respective research focus are also excellent opportunities for improving communication skills, as well as finding potential collaborators to bring an up-rise momentum to postgraduate research.

Highlights of the 11th ICPPT: -

1. Plant disease - Fusarium wilt of banana.
2. Pathogen - Fungal species adversely affect crop productions in Malaysia.
3. Environment - Unmanned aerial vehicle sprayer for pest management.

Assoc. Prof. Dr. Siti Nordahliawate Mohamed Sidique (Plant Pathologist) and Assoc. Prof. Dr. Nur Aida Hashim (Entomologist) represented UMT at the 39th Annual Meeting of MAPPS on the final day of conference. MAPPS encourages and welcomes new members in the fields of crop protection and plant health to join the society as well as their events. More information is available at https://mapps.org.my/membership/, or send an enquiry directly to the Secretary of MAPPS, Dr. Dahlia Sidique (dahliasidique@umt.edu.my). There are plenty of opportunities because the society is working closely with plantation and plant protection industries, and affiliate members, International Association for Plant Protection Sciences (IAPPS), International Society for Plant Pathology (ISPP) and Malaysian Crop Life and Public Health Association (MCPA).

Phoebe Chong presents her research work on durian stem canker disease.

From left to right: Phoebe (UMT) with plant pathologists Dr. Masratul Hawa (USM), Dr. Dahlia Sidique (UMT), Dr. Hefni Rusli (MPOB) and Dr. Nik Izham (USM).

Dr. Dahlia Sidique joins the Malaysian Plant Protection Society (MAPPS) Council at the 2023 annual meeting, and takes the responsibility as honorary assistant secretary.

MICROSCOPIC EXAMINATION FOR FOOD POISONING INVESTIGATION

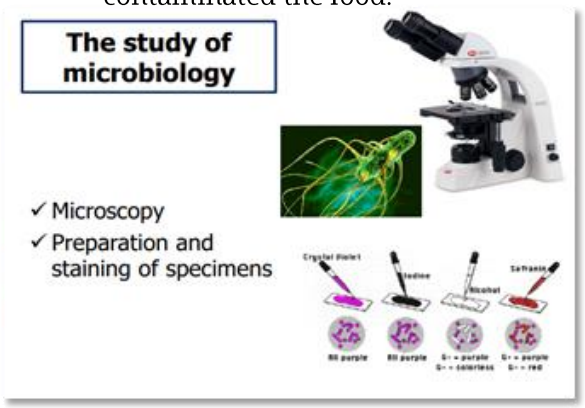
Dr. Tuan Zainazor Tuan Chilek

Training related to microbiological food analysis was held on 12-13 October 2022 at Food Safety and Quality laboratory Selangor, Kompleks Kesihatan Bandar Botanik, Jalan Langat, Klang, Selangor. A total of 15 participants were involved in the training. This training was conducted to expose participants to the importance of microscopic examination, especially in investigating of food poisoning cases.

During the 2 days of training, participants were taught theoretically and practically as per the following list;

- ✓ Introduction to microscopic examination
- ✓ Parts and components of microscope and its functions
- ✓ Examination of bacterial motility (Wet mount & hanging drop microscopy)
- ✓ Smear preparation and staining (Simple staining, Negative staining, Gram staining & Endospores staining)
- ✓ Introduction to *Campylobacter* analysis
- ✓ Hands on activity for Campylobacter analysis in food (Sample preparation, Serial of dilution, Plating, Incubation)
- ✓ Follow up on *Campylobacter* analysis
- ✓ Discussion on the findings
- ✓ Q & A

Participants were tasked with analyzing and identifying bacteria from food samples and successfully identifying the bacteria that contaminated the food.



Training on microscopic examination for Food Safety and Quality laboratory Selangor.

A REVIEW ON SPONGE CITY CONCEPT FOR TERENGGANU

Zahaitun Mahani Zakariah

Introduction

Apparently, flooding is a natural phenomenon occurring over a long period of human history (Plate, 2002; Yang et al., 2018). Terengganu experienced one of the worst episodes of flooding in December 2022, involving all eight districts in the state, of which Kemaman was the worst-affected district with 12,000 victims. In order to mitigate the risk of flooding in the east coast states of Kelantan and Terengganu, the Ministry of Natural Resources, Environment and Climate Change has brought about 40 mitigation projects to construct flood barriers, walls and environmental-friendly drainage systems. In this regard, Bibi Zarina Che Omar, the deputy director-general (specialist sector) of the Drainage and Irrigation Department (DID), described the implementation of Sponge City Concept (SCC) in Putrajaya, which. She claims that Putrajaya is the country's best example of a sponge city. Similar to other Asian cities, Malaysia too is struggling to accommodate the rapid urban development and rural-urban migration. The massive population growth often eventually lead to encroachment on flood-prone areas in the cities, which can be described as "sowing the seed of flooding disaster".

The Sponge City Concept (SCC)

The idea of sponge city was conceptualized in China in early 2000, and was adopted since 2013 to mitigate the major issue of urban flooding (Zevenbergen et al., 2018). Besides tackling urban flooding and other urban water management issues, SCC also plays other crucial roles such as urban runoff purification, attenuation of peak run-off and water conservation (Chan, 2018; Chan et. al., 2022). In a sponge city, the rainwater is diverted fall into ponds, and then to the wetlands where it will be filtered before going to the lakes as clean water.

Coastal cities in East Asia including Malaysia, have initiated many flood mitigation strategies and policies to reduce the adversities of flooding. Effective flood mitigation, however, should go beyond just the engineering-based flood control structures SCC is hence seen as an appropriate flood governance program.

Sponge City Concept for Terengganu

The housing development in the state has converted much of the low-lying areas including mangrove zone into housing areas, which are, unfortunately, highly susceptible to flood during raining season. SCC should perhaps be implemented in Terengganu as a key flooding mitigation measure well in order to mitigate the adverse impacts of flooding particularly in housing areas which are susceptible to flooding in mangrove areas. The mangrove forests indeed serve as a buffer zone and natural "sponges" that reduce the impact of high tides and tsunamis. In 2016, Sahabat Alam Malaysia (SAM) has identified that heavy rain and the lack of buffer zones to accommodate excess water will cause floods. Hence, SCC could be deemed appropriate for flood risk management.

Conclusion

Flooding is a natural phenomenon occurring annually in Peninsular Malaysia especially on the east coast during monsoon season. Although, there are various flooding mitigation methods available, SCC is worth being considered as a priority mitigation measure based on the experience of China.

References:

Chan, F.K.S. 2018. Towards resilient flood risk management for Asian coastal cities: Lessons learned from Hong Kong and Singapore. Journal of Cleaner Production. Volume 187, 2018, Pages 576-589, ISSN 0959-6526, https://doi.org/10.1016/j.jclepro.2018.03.217. (https://www.sciencedirect.com/science/article/pii/S0959652618308941)

Chan, F.K.S, Yang, L.E., Mitchell, G., Wright, N., Guan, M., Lu, X., Wang, Z., Mont, B. and Adekola, O. 2022. Comparison of sustainable flood risk management by four countries – the United Kingdom, the Netherlands, the United States, and Japan – and the implications for Asian coastal megacities. (Nat. Hazards Earth Syst. Sci., 22, 2567–2588, 2022, https://doi.org/10.5194/nhess-22-2567-2022)

Plate, E. J.: Flood risk and flood management, J. Hydrol., 267, 2–11, https://doi.org/10.1016/S0022-1694(02)00135-X, 2002.

Yang, L. E., Scheffran, J., Süsser, D., Dawson, R., and Chen, Y. D. 2018. Assessment of Flood Losses with Household Responses: AgentBased Simulation in an Urban Catchment Area, Environ. Model. Assess., 23, 369–388, 2018.

Zevenbergen, C., Fu, D. and Pathiran, A. 2018. Sponge Cities: Emerging Approaches, Challenges and Opportunities. (http://creativecommons.org/licenses/by-nc-nd/4.0/)

MOU BETWEEN UMT & SPMVV, INDIA: AMPLIFY THE GLOBAL VISIBILITY OF BOTH ORGANIZATIONS

Dr. Mannur Ismail Shaik & Assoc. Prof. Norizah Mhd Sarbon

Universiti Malaysia Terengganu (UMT) signed a Memorandum of Understanding (MoU) with Sri Padmavati Mahila Visvavidyalayam (SPMVV) (Women University), India on 25th October 2022. The signing ceremony was held at the Senate Hall of UMT Chancellery. The MoU documents signed by both universities Vice-Chancellors, Prof. Dato' Dr. Mazlan Abd. Ghaffar (UMT) and Prof. Duvvuru Jamuna (SPMVV) which was initiated by Faculty of Fisheries and Food Science.

In this occasion, UMT Vice Chancellor Prof. Dato' Dr. Mazlan Abd. Ghaffar mentioned, "this ceremony marks a significant day for UMT to

be associated with such an inspirational and successful institution, working hard towards achieving its vision and mission by empowering women with higher education in south India. In this globalization era, cooperative partnerships with other academic and research excellence institutions around the world are not an option, but a necessity. The signing of this Memorandum of

Understanding between our two institutions today symbolizes a partnership that we believe will lead to many new joint activities and amplify the global visibility of UMT and SPMVV".

The Vice Chancellor of SPMVV, Prof. Dr. Duvvuru Jamuna mentioned, "SPMVV is a premier center of education, both general and professional, for women to high acquire the knowledge, skills, and attitudes required to lead a life as complete citizens and pursue careers of their choice. SPMVV focuses on International collaborations throughout the globe for extending academic and research activities. This MoU will bring several high-impact activities between SPMVV and UMT which includes, student and staff exchange, joint research grants, joint publications, joint degree programs, and international conferences & workshops".

In this MoU signing ceremony, The Deputy Vice Chancellors (Research and Innovation), Prof. ChM. Dr. Marinah Binti Mohd Ariffin, Dean of FPSM, Prof. Dr. Mohd. Effendy Bin Abd. Wahid, Director, International Center, Prof. Ts. Dr. Lam Su Shiung, Deputy Dean of FPSM, Prof. Madya Dr. Rumeaida Binti Mat Piah, MoU PIC's, Dr. Mannur Ismail Shaik, Prof. Madya Ts. Dr. Norizah Mhd Sarbon, and Prof. Dr. Shamsul Bahri Bin Abd Razak, participated. From SPMVV Prof. P. Vijaya Lakshmi, Dean, and Prof. V. Nirmala, Associate Dean, International Relations, Prof. R. Usha, Placement Office, Dr. N. Rajani, Head, Dept. of Clinical Psychology also participated in this event.

Photos

Meliponiculture Open Opportunities for Collaboration between UMT and Women University

Prof. Dr. Shamsul Bahri Bin Abd Razak & Dr. Mannur Ismail Shaik

On 26th October 2022, delegates from Sri Padmavati Mahila Visvavidyalayam (SPMVV) (Women University), India visited Stingless bees Park in Setiu, Terengganu. Professor Dr. Jamuna, the Vice Chancellor of Women University who led the delegation said that "This project is unique from other community projects as it directly benefited stakeholders. Along with the raw honey, it has potential to be utilized as various downstream products such as foods and cosmetics". The stingless bees is known as "kelulut"in Malay is one of the successful projects under Translational grant, led by Prof. Dr. Shamsul Bahri Abd Razak to improve local community economy and livelihood. " We are very impressed with the project and we are planning to adopt and implement it in India to strengthen women entrepreneurship. This will be collaboration between Women University and University Malaysia Terengganu" Prof. Dr. Jamuna added.

"The Stingless bees Park has become an ecotourism spot for visitors to experience hands-on honey harvesting and to get pure stingless bees honey" said Prof. Dr. Shamsul Bahri Abd Razak. This project has successfully increased the participants income under ECOSWED a Non-Government Organization (NGO) led by YM Tengku Azam Tengku Mat.

The delegates from Women University included Prof. Dr. P. Vijaya Lakshmi (Dean), Prof. Dr. V. Nirmala (Associate Dean, International Relations), Prof. Dr. R. Usha (Placement Office), and Dr. N. Rajani (Head, Dept. of Clinical Psychology). During the visit, Dr. Mannur Ismail Shaik and Dr. Tuan Zainazor Tuan Chilek members of Special Interest Group, Apis and Meliponine UMT were also presented.

FOOD SAFETY PROMOTION: LEARN AND FUN

By Dr. Tuan Zainazor Tuan Chilek & Zamani Mohamed

Promotion related to food safety is essential in preventing the occurrence of food poisoning in the community. Early exposure should be done starting from kindergarten and primary school in implementing good practices to prevent food poisoning incidents, such as personal hygiene and proper food handling. In addition, a calm and fun approach should be applied among children so they can easily understand and practice what they are learning.

Coloring activities are very synonymous with children. This approach is ideal for promoting food safety early, such as at kindergarten and primary school levels. A series of coloring activities with these groups of children were conducted throughout the year 2022, and it was found to be very effective.

Some of the drawing used in colouring activities.

Collaborative discussion between OA Organik and FPSM, UMT

By Dr. Ivan Koh Chong Chu

Organic OA is a project introduced by Yayasan Kajian dan Pembangunan Masyarakat (YKPM) in 2016. It aims to build the economy of the Orang Asli community and help maintain the environmental ecosystem. The approach practised by YKPM together with OA Organik coincides with the 2030 Sustainable Development Agenda by the United Nations (UN) through the Goals Sustainable Development 17 (SDG 17) by fostering close cooperation between the private sector and local communities. The first Organic OA project was started in Tasik Chini, Pahang. With the cooperation of Tabung Pertanian Orang Asli (IPAF), YKPM has successfully expanded the organic crop farming project from only eight to 50 farmers today. This success was possible with the cooperation of various parties, among them is Jaya Grocer, a well-known supermarket chain in Malaysia.

On the 14th of December 2022 the Faculty of Fisheries and Food Sciences, Universiti Malaysia Terengganu (FPSM, UMT) hosted a contingent of Orang Asli from Chini, Pahang together with representatives from the OA Organik team. For this trip a total of 11 participants from Kampung Melai and representatives from OA Organik led by Mr. Joseph Koh and Mr. Sylvester Manggot bin Malikus visited UMT for a day of discussion and learning.

The morning was spent with a short but succinct discussion led by Assoc Prof Dr Hayati, the Deputy Dean of FPSM and joined

by kelulut expert Prof. Dr. Shamsul Bahri Bin Abd Razak, agriculturist Ts. Dr. Wan Zaliha Binti Wan Sembok; aquaculture nutritionists Dr. Sharifah Rahmah Binti Syed Muhammad & Dr. Noordiyana Binti Mat Noordin; invasive species and ornamental fish specialist, Ts. Dr. Lokman Nor Hakim Bin Norazmi; fish breeding experts, Dr Ivan Koh Chong Chu & Dr. Muhammad Abduh Bin Yazed. The discussion focused on the knowledge transfer opportunities that are available to be provided to the Orang Asli communities, particularly that of Kampung Melai. The entourage was most interested in the kelulut culture and farming as well as vegetable nutrition and care.

A visit to UMT's Kelulut Park showcased by the process of kelulut farming and honey production and attracted the attention of the visitors due to the profitability as well as the sustainability of kelulut culture. Visitors were also treated to the different types of kelulut honey which further increased their interest in the topic. The afternoon was allocated with an educational visit to UMT's fish hatchery in which the basics of catfish and tilapia breeding and culture were taught. A brief explanation of ornamental fishes was also included. UMT staff also taught the contingent how to identify the broodstock of catfish, and check its egg quality. The session ended with an affirmation of organizing more partnership activities in the future.

Sharing session on the FPSM hatchery operation

Explanation on the kelulut farming process

Demonstration of African catfish breeding techniques

COMMUNITY ENGGAGEMENT THROUGH KNOWLEDGE TRANSFER

By Dr. Tuan Zainazor Tuan Chilek & Prof. Dr. Shamsul Bahri Abd Razak

Certificate of participation was given to the students after the program.

The transfer of knowledge was carried out by the Apis Meliponine Special Interest Group (SIG), UMT, with students from six selected primary and secondary schools from Setiu District. The first phase involves three primary schools, while the second phase consists of three secondary school students. This programme was held from 18 October until 8 November 2022 at Taman Kelulut Rumah Tokki, Kg. Pengkalan Gelap, Setiu, Terengganu.

A total of 240 students and 30 teachers were involved. The programme, called 'CINTAI KELULUT SAYANGI ALAM' was chosen as the theme of its implementation. The programme's objective is to provide exposure to the students on *kelulut* and its importance in ensuring the sustainability of nature and its benefits to humans.

Programmes with students of selected schools from Setiu District; Introducing to kelulut farming and production of kelulut based products.

Implementation of knowledge transfer program activities among school children.

LEFT-OVER VEGETABLE'S SAMBAL: A NEW IDEA DISCOVERED

By Dr. Tuan Zainazor Tuan Chilek & Mohammad Ikhwan Faizuddin Azman

The left-over ingredients, mainly from culinary preparation such as vegetable are noticeable in small-scale and large-scale kitchens. Usually, this material will be disposed of as waste. Vegetable stems and peels such as carrots, cucumbers, eggplants, mustard and others are generally treated as kitchen waste. The nutritional content of this vegetable's waste can be utilised and not only disposed of as animal feed or as compost fertilizer.

Looking at this scenario, the idea was triggered to use such left-over vegetables rich in nutritional composition that are good for health as edible food. Thus, a delicious spicy sambal has been produced by a group of Food Science members, the Faculty of Fisheries and Food Science, Universiti Malaysia Terengganu.

Left-over vegetable's sambal innovated using vegetable stems and peels such as carrots, cucumbers, eggplants, mustard and other ingredients.

"SELANGKAH KE ALAM KERJAYA 2022", Preparing Students For The World Of Work

By Dr. Siti Nur'afifah Binti Jaafar and Dr. Nurul Aqilah Binti Iberahim

On 12th November 2022, the Faculty of Fisheries and Food Science (FPSM) and the Student Affairs Office UMT organized a one-day program entitled "Selangkah Ke Alam Kerjaya 2022". This program was organized specifically for 342 participants from final-year students of FPSM to prepare students for the increasingly challenging work environment, especially after many sectors in agriculture, fisheries, and food production are still recovering from the Covid-19 pandemic. The aftermath of this situation created fierce competition among graduates, who also had to compete with experienced workers who were laid off during the MCO period. For this reason, graduates are encouraged to equip themselves by being aware of trends in the labor market, industry, jobs, and careers, as well as the need for soft skills such as entrepreneurial skills. Therefore, this program was initiated with the following objectives:

1. To boost participants' enthusiasm and motivation to build their confidence in career searching.
2. To educate participants about the needs and skills required by employers in the workplace.
3. To encourage participants' entrepreneurial interest by teaching them the secrets of entrepreneurial success.

This program consists of 3 parts. Part 1 is a motivational talk entitled "Direction after graduation: continue working or take a break?" delivered by Mr. Nik Faiz Iskandar Bin Nik Zahari. In this talk, Mr. Nik Faiz, the CEO of Career Expert Sdn Bhd, shared with the participants about the current job market in Malaysia, the demand from employers, and the scenario of the right time to work or take a break right after graduation. Part 2 of the program was about the forum and interaction led by Dr. Faridah Binti Yahya on "The Employer's Dream of an Excellent Employee". The panel consisted of UMT graduates, namely Ms. Foong Kar Wai (QA Executive, QL Figo (Johor) Sdn. Bhd.) and Ms. Nur Elia Nadhira Binti Mohd Asmadi (Assistant Researcher Phytopathology, Enza Zaiden Asia R&D). Both shared how they got to the interview and their experiences in their current jobs. The last part of the program covers the success stories of entrepreneurs Mohamed Izamshah Bin Mohamed Edroos (Manager, Blue CQ Enterprise) and Muhammad Najmuddin Bin Mohd Nan (CEO AKUSUKAKOPI). Tuan Muhammad Ikram bin Abd Talib (Director, Penang State MAQIS) also shared his experience as an entrepreneur before joining the government service and his experience in MAQIS regarding the trading activity. This session was moderated by Ts. Dr. Lokman Nor Hakim Bin Norazmi.

Overall, this program was a success as it gave the students an insight into the current situation and scenarios in agriculture, fisheries, and food production and introduced them to the career preparation process. It is anticipated that this program can be organized again in the future to benefit more students.

Mr. Nik Faiz Iskandar Bin Nik Zahari gave a talk in Slot 1: Direction after graduation: continue working or take a break?

Moderator Dr. Faridah Yahya (left) along with two FPSM alumni, Ms. Foong Kar Wai (center) and Mrs. Nur Elia Nadhira Binti Mohd Asmadi (right), in Slot 2

Success story of the Entrepreneurs led by Ts. Dr. Lokman Nor Hakim Bin Norazmi as moderator (right) with three panelists - Mr. Mohamed Izamshah Bin Mohamed Edroos (two from right), Mr. Muhammad Najmuddin Bin Mohd Nan (left) and Tuan Muhammad Ikram Bin Abd Talib (two from left).

Group photo with the program committees, lecturers, and students.

Gold and Silver Medals for FPSM at NaLIS 2022

Suhana Muhamad Hanidun, Senior Science Officer

The first National Laboratory Innovation Seminar (NaLIS) organized by Centre of Research and Field Service (CRAFS), Universiti Malaysia Terengganu was held on the 28-29th of November 2022 at Tanjung Vista Hotel, Kuala Terengganu. The two days seminar started with Plenary Speech entitled 'Technology and Innovation Drive A Better Future in Laboratory Achievement' by Ir. Ts Dr. Ahmad Ziad Sulaiman from Universiti Malaysia Pahang. The Keynote Speech was presented on the second day by Ms. Chong Huey Bing from Agilent Technologies Malaysia with the title 'Revolution of Innovation in Technology'.

The main focus in NaLIS 2022 includes Laboratory Quality, Laboratory Analysis, Technique & Technology, Laboratory Management & Operation and Laboratory Safety Health & Environment. There were 22 innovation projects that were presented throughout the two days seminar. The participants were from Universiti Malaya, Universiti Kebangsaan Malaysia, Universiti Teknologi MARA, Universiti Sultan Zainal Abidin and Universiti Malaysia Terengganu. The innovations created and shared can be implemented and applied in the workplace to ensure the laboratory operation is more effective, money-saving, green technology application, time-saving and other benefits.

Besides the innovation presentation and vendors exhibition, seven interesting and informative speeches were presented by experienced speakers in their respective fields.

The topics are;

1. Precision Issues in Providing Reliable Result of Analysis by Sirim Berhad.
2. The Importance of Technology in Halal Analysis: Detection & Application by Malaysia Halal Analysis Centre (MyHAC).
3. Schedule Waste Management in Laboratory by Jabatan Alam Sekitar Negeri Terengganu.
4. Technology in Laboratory Safety: Local Exhaust Ventilation by EcoSwift Sdn. Bhd.
5. Revolution Technology in Microscopy by Interscience Sdn. Bhd.
6. Technology in Chemical Waste Disposal by Cenviro Sdn. Bhd.
7. MyIPO: Your Innovation & Product Destination by Innovation Commercialization Centre, UMT.

FPSM was so proud to have two teams presenting their projects at NaLIS 2022. '*Sabun Daripada Minyak Menggoreng Terpakai (SMMT) Di Makmal'* was awarded Gold Medal and '*Penghasilan Sos Pencicah Rosel Daripada Olahan Bahan Buangan (Tulang Ayam) Kelas Amali Di Makmal'* was awarded Silver Medal.

SMMT was produced from used oil collected from cooking laboratories at FPSM. It is very easy to prepare, low cost and also comparable to commercial products in the effectiveness of removing oil residues and dirt that sticks to dishes and cooking equipment in the laboratory.

On the other hand, the Roselle Dipping Sauce is the first roselle product with a savoury formulation, developed from

fusion chicken bone stock and roselle calyx. The chicken bones used were one of the wastes from the Basic Preparation practical class.

Congratulations to Mrs. Fadlina Yusof, Mr. Mohammad Ikhwan Faizuddin Azman and team members for their effort and passion in participating in this seminar. This great achievement will be the booster to create more laboratory innovation projects.

Gold Medal Award for 'Sabun Daripada Minyak Menggoreng Terpakai (SMMT) Di Makmal'

Mrs. Fadlina Yusof receiving the Gold Medal Award at the National Laboratory Innovation Seminar (NaLIS)

Silver Medal Award for 'Penghasilan Sos Pencicah Rosel Daripada Olahan Bahan Buangan (Tulang Ayam) Kelas Amali Di Makmal'

Mr. Mohammad Ikhwan Faizuddin Azman receiving the Silver Medal Award at the National Laboratory Innovation Seminar (NaLIS)

Kebun Dapur, Community Service Program by FPSM Supporting Staff

Suhana Muhamad Hanidun, Senior Science Officer

Kebun Dapur is an activity of growing vegetables and plants that can be used in cooking, including side dishes or generally called *ulam-ulaman*. This simple and low-cost activity was planned to expand community service activities among FPSM supporting staff. Since gardening activity is now a part of teaching activities in early childhood education centres such as Tabika KEMAS, PASTI and Taska PERMATA, they were the first target group for this program. Three series *of Kebun Dapur* were successfully conducted on November 2022. The pre-schools involved were Tabika KEMAS Mutiara & Tabika KEMAS Delima Kampung Padang Nenas, Tabika KEMAS Kampung Tanjung Gelam and Taska PERMATA Wakaf Tembesu (TABILAS).

Besides giving awareness to the community to cultivate gardening and agricultural activities, the sharing of farming knowledge and the contribution of the trees from FPSM staff to the parties involved definitely benefited them.

Trees donated to the pre-schools

Gardening materials and trees donated to the pre-schools

Staff enjoying the Kebun Dapur activity.

Photos at the pre-schools.

ACADEMIC VISITORS BUILDING A VIBRANT AND INTERNATIONALLY DIVERSE RESEARCH CULTURE

Dr. Mannur Ismail Shaik, Assoc. Prof. Norizah Mhd Sarbon & Dr. Fisal Bin Haji Ahmad

Academic staff from Sri Padmavati Mahila Visvavidyalayam (SPMVV) (Women University) lead by Dr. P. Josthna, Head of the Biotechnology Department together with Associate Professors Dr. N. John Sushma and Dr. B. Kishori had visited the Faculty of Fisheries and Food Science, UMT from 18th to 20th December 2022.

Interaction and insight discussion together with FPSM lecturers were to develop joint research activities specially research funding potential. This session was chaired by Assoc. Prof. Ts. Dr. Norizah Mhd Sarbon. "There is a grant offered by Government of India to encourage international linkage," Dr. N. John Sushma, PIC of SPMVV-UMT MoU said.

"SPMVV established to encourage the women empowerment in south India and SPMVV achieving to goal. Various research and community activities fascinating women into science", Dr. P. Josthna mentioned.

"SPMVV offering various academic programs including, Biotechnology, Microbiology, Food

science, education, business management, and engineering which matches with UMT", Dr. B. Kishori stated.

The academic visitors had shared their research finding in the Research Seminar on "Advances in Science and Technology" joined by FPSM students and lecturers.

Dr. P. Josthna delivered the talk on "Role of Apoptosis in Cancer", Dr. N. John Sushma delivered the talk on "Nanotechnology - Recent Trends in Food Processing", Dr. B. Kishori delivered the talk on "Recent Advances in Crustacean Reproduction".

On final day, the visitors had a wonderful opportunity to discover the Stingless beekeeping project from the Sifu himself, Prof. Shamsul Bahri Abd Razak.

Few Photos of International Staff Mobility Program from SPMVV

LESTARI PROGRAMS FOR FPSM MEMBERS

Suhana Muhamad Hanidun, Secretary of FPSM Welfare and Recreation Committee

FPSM Welfare and Recreation Committee have taken the initiative to conduct Lestari Program as a monthly faculty event from August to December 2022. The primary purpose of this program is to strengthen relationships and practice a healthy lifestyle through activities such as exercise, fitness, sports and so on.

The Lestari Programs that have been successfully conducted are as follows;

- Brisk Walk and Gempur Aedes on 24th August 2022
- Morning Walk at Pantai UMT on 29th September 2022
- Program Eksplorasi Alam Bukit Kor on 13th October 2022

Congratulations, and thanks to the FPSM members who made this program successful.

Brisk Walk and Gempur Aedes

Morning Walk at Pantai UMT

Program Eksplorasi Alam Bukit Kor

SUKUM GOLD MEDAL (ADHWA)

Muhammad Syahrunizan Bin Abdul Rashid, Assistant Registrar, FPSM.

Congratulations to Mr Muhammad Adhwa Amzar bin Sagnal, who won the first gold medal at the Public University Staff Sports Championship, SUKUM 2022, held at Universiti Putra Malaysia from September 17 to 24, 2022. He represented UMT in the men's (senior) individual MTB category cycling event. He works as a Fisheries Assistant at FPSM and is one of the leading competitors and medalists in several past SUKUM championship series. Hopefully, he will continue to help UMT shine in this sport.

The cycling team representing UMT at SUKUM 2022

Announcement (seminar, talk, conference etc)

1. Sweet memories created at the end of 2022


Life begins AFTER COFFEE
ALL YOU NEED IS love
Majlis PELANCARAN PRODUK
AISKRIM GAC
13 Nov 2022 (Ahad)
Kafe Ben Cafe, UMT
Beta gac
OfficialUMT
MEDIA KREATIF
PKK UMT - HAFIZA ELLIAS


KIPP
MEDIA KREATIF
FPSM


MEDIA KREATIF
FPSM


UMT
Pecipta'22
Tahniah
Ts. Dr. Aidilla Binti Mubarak
atas kejayaan mendapat
SILVER AWARD
di PECIPTA 2022
International Conference and Exposition on Inventions by Institutions of Higher Learning yang berlangsung pada 1 – 3 November 2022
Ikhlas daripada Warga FPSM
FPSM
FAKULTI PERIKANAN & SAINS MAKANAN


UMT
Pecipta'22
Tahniah
Dr. Ezmahamrul Afreen bin Awalludin
atas kejayaan mendapat
BRONZE AWARD
di PECIPTA 2022
International Conference and Exposition on Inventions by Institutions of Higher Learning yang berlangsung pada 1 – 3 November 2022
Ikhlas daripada Warga FPSM
FPSM
FAKULTI PERIKANAN & SAINS MAKANAN


UMT
Pecipta'22
Tahniah
Ts. Dr. Wan Zaliha Binti Wan Sembok
atas kejayaan mendapat
BRONZE AWARD
di PECIPTA 2022
International Conference and Exposition on Inventions by Institutions of Higher Learning yang berlangsung pada 1 – 3 November 2022
Ikhlas daripada Warga FPSM
FPSM
FAKULTI PERIKANAN & SAINS MAKANAN

UMT & SPMVV
International Student Mobility Program

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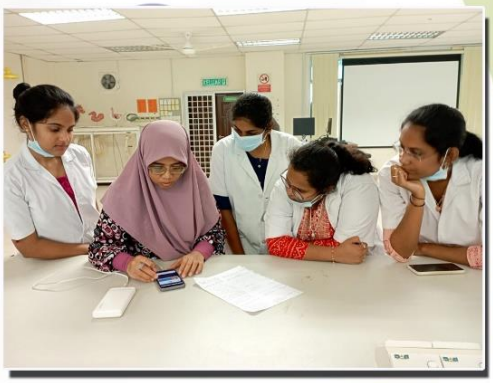
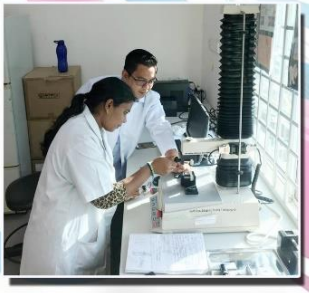
UMT & SPMVV
International Student Mobility Program









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UMT & SPMVV
International Student Mobility Program









Closing Ceremony

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UMT & SPMVV
International Student Mobility Program

Thank you very much to all committee members
for being a part of this successful program...
Dr. Mannur Ismail

4/4 Prepared by Dr. Mannur Ismail Shaik & Photos by Mr. Nik Mohd Aqil Bin Nik Pa.

UMT & SPMVV
International Student Mobility Program
What Student's Say....?

Impressed with UMT laboratory facilities

I am highly impressed with the laboratory facilities and organization of instruments at UMT. With my first international exposure, learned enough conflict management skills and experienced good hands-on experience, I loved working with UMT to develop those skills. The bond and memories created between staff and students at UMT are unforgettable. This experience was really awesome. Thanks to SPMVV and UMT for creating this wonderful opportunity for us.

– Harshitha

I learned lots of new things

This mobility program was very beneficial to us. My supervisor was very professional and friendly, and with his valuable guidance, I learned many new things. From this program, I improved my communication skills and hands-on experience with research tools. The transport facility provided by UMT made easy travel to campus and also for Kuala Lumpur city visits. Thank you SPMVV and UMT for this mobility program.

– Purneswari

UMT was one of the best campus

UMT campus was the best campus with all kinds of facilities to assist the student activity. My supervisor guided me in a very friendly way to complete my research task. With communication skills, practical knowledge and hands-on practice with research instruments I had a good experience at UMT. Many thanks to UMT and SPMVV for this mobility program.

–Dharani Y.

It's a great opportunity

This student mobility program conducted by UMT helped me to gain knowledge in different research areas through the excellent lab facilities and supervisor guidance. Though its less period, we adopt to a supervisor, I successfully completed my research work. UMT provided beneficial needs to us with the help of international student buddies. I thank SPMVV and UMT for the great opportunity.

– Manasa

I can survive in any country

This international mobility program provided confidence to me to survive in any country. From this program, I gained scientific knowledge and skills through hands-on experience in advanced instrumentation as well as good communication skills. With the strong support of my supervisor, I have successfully completed my research project at FPSM, UMT. My sincere thanks to SPMVV and UMT for this golden opportunity.

– Bhavana

Short period but gained good knowledge

As we stayed in UMT for a short period but gained vast knowledge through this international student mobility program. My supervisor's cool & very friendly nature helps me to learn research experience and complete my project at FPSM. Overall services provided by FPSM, UMT are well appreciated. Science officers and other staff were very helpful in conducting our research. Thanks to SPMVV & UMT.

– Sai Chandana

Amazing experience with UMT

It was a great learning experience for me to have practical exposure and good lab equipment. Though it was short-term, it gives me a lot of confidence and knowledge. UMT has a pleasant atmosphere with positive people which makes me an amazing experience. My supervisor always motivated me and helped me to understand the concept better and perform best. Thanks to team SPMVV and UMT for their support.

– Sharvani

Good environment and good experience

The mobility program at UMT is a good experience like the university environment. Through this program, I improved my communication skills, practical knowledge and hands-on experience in the research lab. I enjoyed my stay on campus as well as in Kuala Terengganu. Thanks for this valuable opportunity.

–Dharani K.

I loved this mobility program

This student mobility program helped to enhance our communication skills, practical knowledge and hands-on experience in research work. My supervisor is very friendly and received great support from her as well as from the lab staff. UMT environment is excellent and we enjoyed our stay in Malaysia and I loved this program. Thank you SPMVV & UMT for this opportunity.

–Sowmya

Collection & Preparation by Dr. Mannur Ismail

First Announcement

31st Scientific Conference of Microscopy Society Malaysia (SCMSM2023)

"Collaborating Across Disciplines: Advancing Microscopy Research"

7 & 8 October 2023

Raia Hotel, Kuala Nerus, Terengganu, Malaysia.

ABOUT: The Scientific Conference of Microscopy Society Malaysia (SCMSM) is an annual event that provides a unique platform for scientists, researchers, and industry experts to showcase their work in the field of microscopy and imaging. With a strong emphasis on interdisciplinary research, the conference has gained a reputation for bringing together researchers from different fields to exchange ideas, collaborate, and present their latest findings. The conference is held annually and attracts participants from all over Malaysia and the wider Asia-Pacific region. It is a meeting point for researchers, students, technical staff, and suppliers who are passionate about microscopy and its applications in various fields of study. The conference provides an excellent opportunity for participants to network with peers, learn about the latest advances in the field, and explore new collaborations. This year, the 31st Scientific Conference of Microscopy Society Malaysia (31-SCMSM) will be organised in Terengganu with a theme of Collaborating Across Disciplines: Advancing Microscopy Research".

Research Area:

Physical: Polymer, Ceramic, Electronic Material, Catalysis, Energy, Nanoscience & Composites

Biology: Microbiology, Biotechnology, Pharmaceutical, Medical, Dental, Forestry & Agriculture

Important Dates:

Abstract Submission	Acceptance of Abstract	Full Paper Submission	Payment
15th Aug 2023	30th Aug 2023	15th Sep 2023	5th Sep 2023

Fees:

MSM		Student/	International	
Member	Non-Member	Technical Staff	Student	Academician
RM 900.00	RM 1000.00	RM 700.00	USD 200.00	USD 270.00

Note: Selected papers will be published in the Malaysian Journal of Microscopy (Scopus).

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Details & Registration

Jointly organized by

Microscopy Society Malaysia
Special Interest Group for Apis and Meliponine
Universiti Malaysia Terengganu

Sponsors to Conference are most Welcome