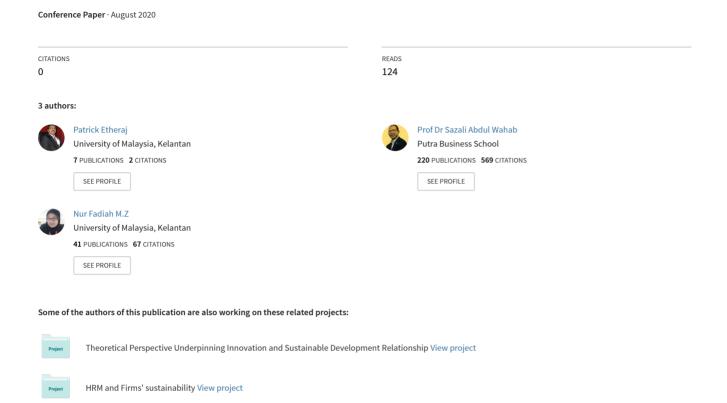
# THEORETICAL PERSPECTIVE UNDERPINNING INNOVATION AND SUSTAINABLE DEVELOPMENT RELATIONSHIP







# **PROGRAM BOOK**

2<sup>ND</sup> INTERNATIONAL
CONFERENCE ON TROPICAL
RESOURCES AND
SUSTAINABLE SCIENCES

PROTECTING AND CONSERVING
THE ENVIRONMENT FOR
SUSTAINABLE LIVING

UNIVERSITI MALAYSIA KELANTAN CITY CAMPUS 10th - 11th AUGUST 2020

Organized By: Faculty of Earth Science With Collaboration Research Management & Innovation Center (RMIC), UMK

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 $2^{\text{ND}}$  INTERNATONAL CONFERENCE ON TROPICAL RESOURCES AND SUSTAINABLE SCIENCES (CTReSS 2.0): PROGRAM BOOK

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PROTECTING AND CONSERVING THE ENVIRONMENT FOR SUSTAINABLE LIVING 10<sup>th</sup>-11<sup>th</sup> August 2020

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### **WELCOMING MESSAGES**



Assalamualaikum w.b.t.

The Universiti Malaysia Kelantan (UMK) is proud to host the 2<sup>nd</sup> International Conference on Tropical Resources and Sustainable Sciences (CTReSS 2.0), virtually.

Since the inception of UMK, sustainable management of natural resources has been at the forefront and as a niche of research,

highlighted through various agendas and measures in collaboration with different state and federal government agencies, non-governmental organizations and local communities.

It is our mission to not only act as a platform for teaching and learning, but also to be the hub for sharing latest scientific knowledge. Therefore, this conference provides a good stage to account for different perspectives on issues of natural resource management including that of environmental, social and economic viewpoints. In line with the everchanging world climate, this conference also deems relevant to reflect the current environmental issues and thus mitigation measures.

I wish the organizing committee a great success and looking towards a collective resolution achieved through the presented papers.

**Prof. Dato' Ts. Dr. Noor Azizi Ismail**Vice Chancellor, Universiti Malaysia Kelantan

### **WELCOMING MESSAGES**



Assalamualaikum w.b.t.

It is a true pleasure to welcome you to the second in the series of the International Conference on Tropical Resources and Sustainable Sciences, organised by the Faculty of Earth Science, Universiti Malaysia Kelantan (UMK).

This conference provides a great platform for discussion and sharing of knowledge present scientific findings across range of а environmental sustainability issues alongside the 17 Sustainable Development at both Goals national and international levels.

including good health and well-being, clean water and sanitation, and life on land. Of particular concern, issues about how to protect existing natural resources while meeting the increasing demands from the rapid world-wide population growth, accelerated urbanisation, climate and dietary changes. I think this is the time to reflect on existing tropical resources and environmental issues, where interdisciplinary discussions and networking would allow better understandings to safeguard the nature.

On behalf of the UMK Research Management Innovation Centre (RMIC), I would like to thank you for your support. We wish you a successful conference and hope that you find the programme interesting and a catalyst for the future research.

Prof. Ts. Dr. Arham Abdullah

Deputy Vice Chancellor (Research and Innovation)

### **WELCOMING MESSAGES**



Greetings.

Allow me to warmly welcome all the participants from within and outside of the country. The first Conference on Tropical and Sustainable Sciences Resources (CTReSS 1.0) successfully organized by the Universiti Kelantan Malaysia (UMK) in 2014. As a continuation of the first conference, this year, in 2020, UMK will be organizing another conference for the second time due to tremendous requests from various parties. The main goal of the 2<sup>nd</sup> International Conference on Tropical Resources Sustainable Sciences (CTReSS 2.0) is to

explore issues of natural resource management from environmental, social and economic perspectives and its solutions.

The purpose of the conference is to provide a platform for researchers and stakeholders from within and outside of the country to collaborate in research and to share experiences and results of their research in the context of sustainable natural resource management.

The CTReSS 2.0 covers wide ranges of topics including atmospheric science, soil, water, minerals & geology (related to geoscience), climate, forest & wildlife management, socio-cultural sustainability, environmental impact, institutions & policies, environmental law & governance, ecosystem services, natural resource products, sustainable economics, agriculture & aquaculture.

On behalf of the organizing committee, I would like to thank all partners and participants for making this conference a reality.

All in all, it is my hope that all participants can make full use of this platform in enhancing and strengthening their networking and research collaborations.

Associate Prof. Dr. Aweng Eh Rak Chairman CTReSS 2.0

### **TENTATIVE**

Date : 10<sup>th</sup> - 11<sup>th</sup> August 2020

Link : Official Facebook CTReSS 2.0

## 10 August 2020 (Monday)

Opening Ceremony
Welcoming Greetings by Vice Chairman
Dr. Muhammad Azahar Bin Abas
Opening Speech by CTReSS 2.0 Conference Chairman
Assoc. Prof. Dr. Aweng Eh Rak
Director of Jeli Campus, UMK
Digital Doa Recital
Officiation Speech
Prof. Dato' Ts. Dr. Noor Azizi Bin Ismail
Vice Chancellor of Universiti Malaysia Kelantan
Keynote Speaker
Prof. Emeritus Dato' Dr. Abdul Latiff Mohamad
Online video presentation by participants

# 11 August 2020 (Tuesday)

Time	Closing Ceremony
8.30 am	Online video presentation by participants
3.00 pm	Welcoming Greetings by Vice Chairman
	Dr. Muhammad Azahar Bin Abas.
03.05 pm	Welcoming Speech
	Ts. Dr. Mohamad Faiz Mohd Amin
	Dean, Faculty of Earth Science
03.15 pm	Closing Speech
	Prof. Ts Dr. Arham Abdullah
	Deputy Vice Chancellor (Research and Innovation)
03.40 pm	Best Presenter Announcement
	Dr. Muhammad Azahar Bin Abas
	Vice Chairman

### **KEYNOTE SPEAKER**



Professor Emeritus Dato' Dr. Abdul Latiff Mohamad is world renowned expert in the of plant research taxonomy conservation biology in Malaysia. Born 1948 in Kelantan, he received his early education at Parang Puting National School and Merbau English School in Kota Bharu, Kelantan. He continued his secondary schooling in Sultan Ismail College, and his tertiary studies University of Malaya (UM) in Bachelor of Science. In 1974, he went to the University of Reading, England and received his Masters of Science in Pure and Applied Plant Taxonomy. Later on, he obtained his

PhD. in Plant Systematics and returned to Malaysia in 1978. He was appointed as a lecturer at Universiti Kebangsaan Malaysia (UKM) and promoted as Associated Professor in 1983 and later as Professor in 1991.

Currently, he is a Professor Emeritus at Universiti Kebangsaan Malaysia. He previously served as deputy dean and dean of Faculty of Life Sciences and Faculty of Science and Technology. He also served as Associate Director and Director of the Institute for Environment and Development, UKM. In botany and plant taxonomy field, he served as advisor, member and executive council for several international and national organizations. He helped to organize and attended many seminars to share his insights on biology conservation and plant taxonomy and at the same time were involved to co-organized a series of scientific expeditions focusing on biological conservation.

He has published more than 500 scientific articles with many listed in ISHF journals. About 300 other publications were published as chapters in books and papers in proceedings. He have trained more than 30 postgraduate students who are now academics, research officers and other scientific professionals around the globe.

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Nor Hizami Hassin (Universiti Malaysia Kelantan)

# **LIST OF PRESENTATION**

THEME: ENVIRONMENTAL

**Sub-theme: Physical Environment (EPNS)** 

Title	Abstract No.
Erosion and Sedimentation at Headwater Stream: A Case Study for Pergau Water Intake Mohd Sofiyan Sulaiman, Mohamad Faiz Mohd Amin, Abdul Hafidz Yusoff, Mohd Fikri Samsudin and Aisah Md Shukor	ENPS01
Ground Level Ozone Fluctuational Characteristics within Two Industrial Areas in Malaysia  Hasifah Abdul Aziz, Norrimi Rosaida Awang, Mohamad Faiz Mohd Amin and Nur Fatihana Mohamad Junaidi	ENPS02
Effect of Monsoonal Period toward Night time Ground Level Ozone in East Coast Malaysia Amni Umirah Mohamad Nazir, Norrimi Rosaida Awang, Nor Azam Ramli, Shaparas Daliman, Hasifah Abdul Aziz	ENPS03
A GIS-Based Flood Vulnerability Assessment in Pasir Mas, Kelantan Nur Aniza Mohamd Hanan, Muhamad Azahar Abas, Amal Najihah Md Nor, Mohamad Faiz Mohd Amin, Nor Hizami Hassin, Abdul Hafidz Yusoff, Norrimi Rosaida Awang, Sulzakimin Mohamed, and Seow Ta Wee	ENPS04
Distribution of Mangroves in Kedah, Malaysia: A Remote Sensing and Ground- Truth Based Assessment Ernie Amira Kamil, Husna Takaijudin and Ahmad Mustafa Hashim	ENPS05
Impact of Land Use Changes on Forest Catchment Area in Pergau Lake, Kelantan Amal Najihah Muhamad Nor, Ayuni Samsul Bahri, Shukor Md. Nor, Abdul Hafidz Yusoff, Muhamad Azahar Abas, Rohazaini Muhammad Jamil, Hasifah Abdul Aziz, Aisyah Nawawi, Norfadhilah Ibrahim, Mohamad Faiz Mohd Amin	ENPS06
Distribution of Cu, Zn and Ni in Asian Swamp Eels, <i>Monopterus albus</i> from Bachok and Pasir Mas, Kelantan, Malaysia Ai Yin Sow, Nisrina Nadia Maizatul@Maizatu, Farah Amalin binti Mahhadi, Nik Raihan Nik Yusoff and Kamarul Hambali	ENPS07
Characteristics of Pergau Reservoir Water Quality Profile Alyaa Filza Effendi,, Ayuni Samsul Bahri , Aiena Nur Nadira Roslan, Muhammad Zulsyahmi Rosli, Noorshariza Azura Shahbodin, Mohammad Faiz Mohd Amin, Amir Shah Ruddin Md Sah and Shahril Mod Husin	ENPS08
Water Quality Status of Pergau Reservoir Water Catchment and Lake, Jeli, Kelantan Mohamad Fikri Samsudin, Mohamad Faiz Mohd Amin, Sharifah Aisyah Syed Omar, Abdul Hafidz Yusoff and Mohd Sofiyan Sulaiman	ENPS09
A Development of A 'ArcSWAT' Surface Runoff Model for Estimating Urban Precipitation Recharge Rohazaini Muhammad Jamil	ENPS10
The Spatial Influence of Environmental and Anthropogenic Factors on the Pattern of Air Pollution in Malaysia Siti Hajar Ya'acob and Abdul Hamid Mar Iman	ENPS11
Analysis of Rubber Tree Recognition Based on Drone Images Nurul Eliani Zainuddin and Shaparas Daliman	ENPS12
GIS-Based Landslide Hazard Evaluation and Zonation of Kg. Chas, Kuala Betis, Gua Musang, Kelantan Nur Safrina Syafril, Wani Sofia Udin and Arham Muchtar Achmad Bahar	ENPS13
Statistical and Spatial Analyses of the Kelantan Big Yellow Flood 2014 Arham Muchtar Achmad Bahar, Marinah Muhammad, Mohammad Muqtada Ali Khan and Noor Janatun Naim Jemali	ENPS14
Analysis of Water Stress Index (WSI) for District Surrounding Ulu Sat Forest Reserve, Kelantan, Malaysia  Mohamad Fikri Samsudin, Mohamad Faiz Mohd Amin, Sharifah Aisyah Syed Omar, Mohd Sukhairi Mat Rasat and Mohammed Abdus Salam	ENPS15

# Sub-theme: Mineral and Geology (ENMG)

Title	Abstract No.
Alluvium assessment of Gold-Bearing Layer in Buried Old River Channel by Using Electrical Resistivity Method at Batu Melintang, Jeli, Kelantan Mohd Syakir Sulaiman, Wani Sofia Udin, Arham Muchtar Achmad Bahar, Mohamad Fatihi and Ahmad Fikri	ENMG01
The Preliminary Study of Late Oligocene to Early Miocene Calcareous Nannofossil in Klias Peninsula, Sabah Nur Syahirah Rosmadi, Nursufiah Sulaiman, Noorzamzarina Sulaiman and Junaidi Asis	ENMG02
Investigation of Seawater Intrusion in Coastal Aquifers of Kelantan, Malaysia using Geophysical and Hydrochemical Techniques Zakiyah Ainul Kamal, Mohd Syakir Sulaiman, Muhammad Khairul Hakim, Thilageswaran, Anis Syahira, Zahidi Hamzah and Mohammad Muqtada Ali Khan	ENMG03
Seismic Facies and Geological Structure Interpretation of the A- Field, Malay Basin, Malaysia Noorzamzarina Sulaiman, Muhammad Amiruddin Safwan Abd. Samad, Nursufiah Sulaiman, Mohammad Muqtada Ali Khan and Nur Syahirah Rosmadi	ENMG04
Diversification of Igneous Rocks and Geoheritage Values in Pergau, Jeli Kelantan Nursufiah Sulaiman, Noorzamzarina Sulaiman, Hamzah Hussin, Arham Muchtar Achmad Bahar and Wani Sofia Udin	ENMG05
Assessment of Limestone Caves in Dabong, Kelantan using Systematic Studies for Potential Geoheritage Sites Nursufiah Sulaiman, Noorzamzarina Sulaiman, Saidah Izzati Mohd Shariffuddin, Siti Balqis Mohd Raflis and Ramadhan Ibnu Hassim	ENMG06
The Sauropod Dinosaur Trackways from Tanah Merah, Kelantan, Malaysia Arham Muchtar Achmad Bahar, Mohd Syakir Sulaiman, Surono Martosuwito and Udi Hartono	ENMG07
Geomorphosite Assessment of Renyok River, Jeli, Kelantan Arham Muchtar Achmad Bahar, Wani Sofia Udin, Hamzah Hussin, Noorzamzarina Sulaiman and Nursufiah Sulaiman	ENMG08
Properties and Occurrences of Rock Coatings in Jeli, Kelantan As A Record of Environmental Processes  Nurul Aina Halimah Abdul Rahim and Roniza Ismail	ENMG09
Mineral Identification on Sediments of Pergau Dam Intakes Chang Shen Chang, Abdul Hafidz Yusoff, Ahmad Ziad Sulaiman, Mohamad Faiz Amin, Mohd Fikri Samsudin, Muhamad Azahar Abas, Amal Najihah Md Nor, Mohd Sofiyan Sulaiman and Abdul Aziz Mahmood	ENMG10
Mapping of Groundwater Potential Zones in a Crystalline Terrain Using Remote Sensing, GIS Techniques and Field Observations: A Case Study In Parts Of Tanah Merah, Kelantan, Malaysia  Muhammad Nadzmi Bin Abdul Ghofur, Wani Sofia, Hafzan Eva Mansor and Mohammad Muqtada Ali Khan	ENMG11
Potential of Rare Earth Elements (REEs) in Gua Musang Granites, Gua Musang, Kelantan Nor Shahida Shafiee, Arham Muchtar Achmad Bahar and Mohamad Muqtada Ali Khan	ENMG12

### **Sub-theme: Forestry**

Title	Abstract No.
Ethnobotanical Indices for Traditional Vegetable and Herbal Medicine Species Consumed in Kota Belud, Sabah, Malaysia Fadzilah Awang-Kanak, Mohd Fadzelly Abu Bakar and Azlinah Matawali	ENFRS01
Contact Angles of Viscoelastic-Thermal Compression (VTC) Modified Paraserianthes falcataria (L.) Laminas Charles Michael Albert and Liew Kang Chiang	ENFRS02
Density of Densified <i>Paraserianthes falcataria</i> Wood Pre-treated with Alkali Vinodini Raman and Liew Kang Chiang	ENFRS03
Notes on the <i>Hoya</i> (Apocynaceae, Asclepiadoideae) from Pergau Forest Reserve, Kelantan, Peninsular Malaysia Rahmad Zakaria, Azim Rabbani, Syed Mohd Edhzam Syed Hamzah and Muhammad Faizal	ENFRS04
Visual Tree Analysis of Rain Trees ( <i>Samanea saman</i> ) in Universiti Sains Malaysia, Main Campus Zahirah Mohamad Tahir, Farah Shahanim Mohamad Mohidin and Nik Fadzly N Rosely	ENFRS05
Plants Diversity in Small Rubber Plantations at Segamat, Johor Nur Safiqah Adnan, Muhammad Firdaus Abdul Karim, Nor Hidayu Madzri, Nadiah Ahmad Fikri, Nursyakirah Saharizan, Nur Basyirah Mohd Ali, Nazahatul Anis Amaludin and Radhiah Zakaria	ENFRS06
Diversity of Ferns and Lycophytes of Pergau Dam, Kelantan and its Vicinity Haja Maideen, Fatin Syahirah, Nur Aliah Khaduwi, Nurul Nadhirah, Nik Norhazrina and Shukor Md Nor	ENFRS07
Mosses of Lowland Forest in Vicinity of Pergau Dam, Jeli, Kelantan Nik Norhazrina, Munirah Aisyah, Nur Syazwana, Haja Maideen and Shukor Md Nor	ENFRS08
Gingers Species Diversity and Distribution Along A Natural Trail Of Lojing Highlands, Kelantan Suganthi Appalasamy, Sarmila Rathamanalan, Shalini Arsogah, Sutati Harni, Koh Kay Sam, Nazahatul Anis Amaludin, Boon Jia Geng, Jayaraj Vijaya Kumaran, Nivaarani Arumugam and Sreeramanan Subramaniam	ENFRS09
Preliminary Study on Tree Species Composition, Diversity and Biomass of Dipterocarpus and Hopea Genera of Bukit Bakar Forest Eco Park, Machang, Kelantan Nurafiqah Zafriakma, Noor Shuhada Masran, Dini Dayana Ahmad, Muhammad Ikram Nazli, Radhiah Zakaria, Muhammad Firdaus Abdul Karim and Nazahatul Anis Amaludin	ENFRS10
Above Ground Biomass and Carbon Stock of Lianas along the Watershed Area of Pergau, Jeli, Kelantan, Peninsular Malaysia Norashikin Mohd Fauzi, Muhammad Aideed Ilias, Nazahatul Anis Amaluddin, Kamarul Hambali and Mohd Firdaus Mohd Ridzuan	ENFRS11
Forest Growth Analysis of Ulu Sat Forest Reserve Noor Janatun Naim Jemali, Mohd Fariz Abd Rhani, Marinah Muhammad and Nur Kyairatul Syafinie Abdul Majid	ENFRS12
Species Composition and Density of Liana along the Watershed Area in Pergau, Jeli, Kelantan, Peninsular Malaysia Norashikin Mohd Fauzi, Muhammad Aideed Ilias, Nazahatul Anis Amaluddin, Kamarul Hambali and Mohd Firdaus Mohd Ridzuan	ENFRS13

# **Sub-theme: Wildlife Management Forestry**

Title	Abstract No.
Feasibility of Natural Salt-licks for Wildlife-Watching in Segaliud-Lokan Forest Reserve, Sandakan, Sabah Lim Wing-Shen, Yip Pui-Mun, Andy Russel Mojiol, Collin Goh, Paul Liau, Liaw Yi-Chuang and Sanchez Vincent John	ENWM01
Temporal Assemblage and Distribution of Ephemeroptera in Lata Janggut, Jeli, Kelantan Nurul Natasha Izzati Mat Nazari, Aweng Eh Rak, Sharifah Aisyah Syed Omar, Sukree Hajisamae, Azlan Ahmad and Mohamad Zamzani Ibrahim	ENWM02
Sustainable Termite Management Using Innovative and Selective Termite Baiting Method Wan Ahmad Syahir Wan Umar and Abdul Hafiz Ab Majid	ENWM03
Aquatic Insect (Larvae) Distribution and Assemblages at River Intakes in Pergau Lakes Sharifah Aisyah Syed Omar, Aweng Eh Rak, Hasimah Hassan, Akrimah Yusoff, Sukree Hajisamae and Aisah Md Shukor	ENWM04
Corbicula fluminae Population and Distribution in Pergau Lakes Sharifah Aisyah Syed Omar, Aweng Eh Rak, Hasimah Hassan, Akrimah Yusoff, Sukree Hajisamae and Aisah Md Shukor	ENWM05
Amphibians and Reptiles Survey at Tasik Pergau, Jeli, Kelantan and Its Updated Checklist  Ehwan Ngadi, Kamarul Hambali, Mohd Sanusi Mohamed, Mohamad Arif Iskandar Abdul Wahab and Shukor Md Nor	ENWM06
Freshwater Fish Checklist in Pergau Reservoir and Its Catchment Area, Kelantan Mohd Shafiq Zakeyuddin, Shahril Mod Husin, Aisah Md Shukor, Ayuni Samsul Bahri, Sharudin Shahadan, Mohd Syafiq Mohd Saharudin and Ahmad Lutfi Ahmad Ghazilan	ENWM07
Macroinvertebrates Checklist in River Intakes of Pergau Lake, Jeli, Kelantan Nurul Hashimah Idris, Nur Syuhadah Shafie, Mohammad Muizz Mohd Snawi, Mohd Fayree Azlan Rozali, Ayuni Samsul Bahri and Aisah Md Shukor	ENWM08
Spatial Analysis Model Assessing Habitat Quality of Selangor Norliyana Adnan and Mohd Parid Mamat	ENWM09
Relationship Management and Fireflies Conservation in Klias and Weston, Beaufort, Sabah Siti Rozziana Jeperi, Mahadimenakbar M. Dawood and Fiffy Hanisdah Saikim	ENWM10
Diversity and Distribution of Primates in the Gunung Basur Permanent Forest Reserve Hani Nabilia Muhd Sahimi, Zainal Abdullah Zawawi, Baharim Selat, Norfariza Mohd Khalid, David Magintan, Mohd Taufik Abdul Rahman and Shukor Md. Nor	ENWM11
Surveys of Bird Species in the Gunung Basor, Kelantan Aainaa Amir, Kamarul Hambali, Adib Bahar, Huda Abdullah and Fahmi Wahab	ENWM12
Termite Species and Structural Pest Identification in Selected Rural Areas of Kelantan, Malaysia Alia Diyana Mohamed Hassim, Suganthi Appalasamy and Nivaarani Arumugam	ENWM13
Assessment of Mangrove Replanting Site at Kg Tanjung Kepah, Lekir, Perak Nurul Fatihah Mohd Fauzi, Teh Hee Min and Ahmad Mustafa Hashim	ENWM14
Rehabilitation of Sandy Coastal Areas in Kuala Rompin, Pahang Nurcahaya Khairany Mohamad Azmi and Farah Shahanim Mohamed Mohidin	ENWM15

# **Sub-theme: Environmental Technology**

Title	Abstract No.
Effect of Temperature on Moisture, Ash and Crude Fat Content in Etak (Corbicula fluminea) Tissue via Modified Oven Smoking Method Bibi Zafirah Zaki, Suganthi Appalasamy, Maryana Mohamad Nor and Aweng Eh Rak	ENEVT01
Removal of Cu from Printed Circuit Board (PCBs) Leachates using Activated Carbon Derived from Foxtail Palm Fruit Nisrina Nadia Maizatul, Mohd Fathullah bin Ghazli @ Ghazali, Nik Raihan Nik Yusoff	ENEVT02
The Efficiency of Bamboo Activated Carbon for Removal of COD from Fish Cracker Industry Wastewater via Response Surface Methodology (RSM)  Mohd Zazmiezi Mohd Alias, Rozidaini Mohd Ghazi, Nik Raihan Nik Yusof fand Mohd Hafiz  Jamaludin	ENEVT03
Determination of Microplastics in Surface Water and Sediment of Kelantan Bay Nurain Saipolbahri, Mimi Lovianna Anak Bitlus, Nur Arifah Ismail, Norashikin Mohd Fauzi and Noor Syuhadah Subki	ENEVT04
Solidification and Stabilization (S/S) of Toxic Waste: Potential Binder for Partial Cement Replacement Materials (PCRM)  Effa Affiana Ishak, Lavania Baloo and Mubarak Usman Kankia	ENEVT05
Removal of Pyrene from Aqueous Solution using Fe-based Metal-organic Frameworks  Zakariyya Uba Zango, Nonni Soraya Sambudi, Khairulazhar Jumbri, Noor Hana Hanif Abu Bakar and Bahruddin Saad	ENEVT06
The Removal of Methyl Orange Using CTA-Aliquat 336 Electrospun Fibers from Aqueous Solution  Nurul Syazana Abdul-Halim, Nor Shahirul Umirah Idris, Nor Fazliani Shoparwe and Tee Mei Chee	ENEVT07
Analysis of Heavy Metal Concentration Using Transplanted Lichen <i>Usnea misaminensis</i> at Pasir Gudang, Johor Azlan Abas and Laily Din	ENEVT08
Removal of Oil and Grease in Wastewater using Palm Kernel Shell Activated Carbon Aleeya Natasha Ramli and Rozidaini Mohd Ghazi	ENEVT09
Removal of Emulsified Oil in Wastewater by Corn Cob Carbon Fong Yuk Moi, Rozidaini Mohd Ghazi and Mohd Zazmiezi Mohd Alias	ENEVT10
COD Reduction in Industrial Wastewater using Activated Carbon Derived from Wodyetia bifurcata Fruit Noor Syuhadah Subki, Najiehah Mohd Akhir, Nurul Syazana Abdul Halim and Nik Raihan Nik Yusoff	ENEVT11
Effect of Heavy Metal Ions on the Photodegradation of Commercial Formulation of Glyphosate Nik Raihan Nik Yusoff, Abdul Jabbar Chaudhary and Mohd Fathullah Ghazli	ENEVT12
Torrefaction's Optimization of Multiple Responses Analysis on Torrefied Biochar from Oil Palm Empty Fruit Bunch Mohd Sukhairi Mat Rasat, Siti Saniah Ab Karim, Mohamad Faiz Mohd Amin, Mohd Hafiz Jamaludin, Nor Hakimin Abdullah, An'amt Mohamed Noor, Muhammad Iqbal Ahmad, Puad Elham, Mohd Khairul Azhar Abdul Razab, Mohamad Asyraf Mohd Amin and Sharifah Aisyah Syed Omar	ENEVT13

### **Sub-theme: Biotechnology**

Title	Abstract No.
Assessing the Floral Volatile Constituents of Male and Female Rafflesia kerri Meijer from Lojing Highlands, Peninsular Malaysia Norhazlini Mat Zain, Mailina Jamil, Shalini Markandan, Nor Azah Mohamad Ali and Zulhazman Hamzah	ENBT01
Isolation and Identification of Bacteria from Phytoremediation Plant of Heliconia psittacorum  Mior Izzuddin Baharuddin, Syahirah Naailah Kamarul Baharin, Aweng Eh Rak and Roziana Hanaphi	ENBT02
Characterization of Aquilaria malaccensis Callus Cells using SEM and Somatic Embryogenesis Associated Genes Identification  Mohd Syafik Mohamad Hamdan, Aimi Wahidah Aminan, Siti Hajar Noor Shaarani and Saiful Nizam Tajuddin	ENBT03
Sensory Evaluation of Appearance and Texture of Carrot Lip Balms Containing Virgin Coconut Oil Siti Nuurul Huda Mohammad Azmin, Nurul Aqilah Yosri, Nur Solehin Sulaiman, Mohd Shukri Mat Nor and Palsan Sannasi Abdulllah	ENBT04
Identification of Stress-related Proteins during the Growth and Development of Piper nigrum L.  Nur Ezzati Hamdin, Hasnain Hussain and Nikson Fatt-Ming Chong	ENBT05
Effect of Chengal Wood ( <i>Neobalanocarpus heimii</i> ) on Physicochemical and Antimicrobial Properties of Coconut Sap ( <i>Cocos nucifera</i> )  Noor Hafizoh Saidan, Mohd Amir Afiq Kartayasa, Nur Ilham Atiqah Mohd Lokman, Nurul Fadzlin Ab Llah, Maryana Mohamad Nor, Seri Intan Mokhtar, Khomaizon Abdul Kadir Pahirul Zaman, Nik Marzuki Sidek and Mohd Shahrul Ridzuan Hamil	ENBT06

### **THEME: SOCIAL & MANAGEMENT**

### **Sub-theme: Environmental Social Impact**

Title	Abstract No.
Flood Risk and Its Effect on Property Value in Kuala Krai, Kelantan Aliya Atika Asyikin Abd Hamid, Abd Hamid Mar Iman and Edlic Sathiamurthy	SMESI01
Perceived Socio-Cultural Impacts of Over Development in Rural Tourism: A Case Study of Kampung Orang Asli Sungai Ruil, Cameron Highlands Nurul Fardila Abd Razak, Nur Aliah Mansor, Mazne Ibrahim, Derweanna Bah Simpong and Siti 'Atikah Rusli	SMESI02
Paddy Farmers Perceived the Socio-Economic Impacts of Climate Change: A Case Study in Pasir Mas, Kelantan Muhamad Azahar Abas, Asya Sabreena Mohd Fuad, Amal Najihah Md Nor, Mohamad Faiz Mohd Amin, Nor Hizami Hassin, Abdul Hafidz Yusoff, Norrimi Rosaida Awang and Seow Ta Wee	SMESI03
Impact of Green Building Certificate on Firm's Financial Performance Nur Syafiqah A. Samad, Abdul Samad Abdul-Rahim, Mohd Johari Mohd Yusof and Katsuya Tanaka	SMESI04
Statistical Analysis of Home Greening Efforts in Young Generation Tien-Choon Toh, Arham Abdullah, Kai-Chen Goh, Yoke-Lian Lew, Chia-Kuang Lee and Felicia Yan-Yan Yong	SMESI05
Disaster Resilience Education (DRE) Programmes in Schools: A Study Case in Kelantan, Malaysia  Muhamad Azahar Abas, Nur Eliana Ibrahim, Seow Ta Wee, Suzyrman Sibly and Sulzakimin Mohamed	SMESI06

### **Sub-theme: Socio-Cultural Sustainability**

Title	Abstract No.
Relative Risk for Poverty in Kelantan – A Bayesian approach Siti Aisyah Nawawi, Ibrahim Busu, Norashikin Fauzi, Mohamad Faiz Mohd Amin and Nik Raihan Nik Yusof	SMSC01
Theoretical Perspective Underpinning Innovation and Sustainable Development Relationship Patrick Ethe Raj, Sazali Abdul Wahab, Nur Fadiah Mohd Zawawi, Khairil Wahidin Awang and Wan Suzana Aafanii Adeeba Wan Ibrahim	SMSC02
The Benefits of Industry 4.0 on Sustainable Development and Malaysia's Vision Patrick Ethe Raj, Sazali Abdul Wahab, Nur Fadiah Mohd Zawawi, Khairil Wahidin Awang and Wan Suzana Aafanii Adeeba Wan Ibrahim	SMSC03
A Review on Sustainable Development and Heritage Preservation and its Conceal Detrimental in Batik Dyeing Nurul Syahida Mat Hussin, Ahmad Rasdan Ismail and Sarah Wahida Hasbullah Nawwal Abdul Kadir	SMSC04
Analysis of the Causes of Destruction of Two British Pillboxes in Bachok, Kelantan Nur Athmar Hashim, Tengku Fauzan Tengku Anuar, Siti Aisyah Muhammad, Suresh Narayanen, Mohktar Saidinr, Nawwal Abdul Kadir, Nur Farhana Shuhaimi and Adam Mad Zain	SMSC05

### **THEME: ECONOMICS**

### **Sub-theme: Eco-Tourism**

Title	Abstract No.
Visitor's Perception and Attitude toward the Ecotourism Resources at Taman Negara Kuala Koh, Kelantan Siti Zubaidah Junus, Kamarul Ariffin Hambali, Abdul Hamid Mar Iman, Muhamad Azahar Abas and Nor Hizami Hassin	ECECT01
Possibility of Segaliud Lokan Forest Reserve (SLFR), Sandakan as Nature Tourism Attraction Nurliza Hasmat, Andy Russel Mojiol, Rosmalina Abdul Rashid, Collin Goh, Paul Liau, Sanchez Vincent John and Jesleen Linus	ECECT02
Local Communities Willingness to Pay for Conservation of Ecotourism Resources at Gelam Forest, Kelantan, Malaysia Nor Hizami Hassin, Nitanan Koshy, Kamarul Ariffin Hambali and Jayaraj Vijaya Kumaran	ECECT03
Ecotourism as Tool for Eradicating Rural Poverty in Peninsular Malaysia Mukrimah Abdullah, Mohd Parid Mamat, Norliyana Adnan and Faten Naseha Tuan Hussain	ECECT04
Economic Valuation of Nature Area of Sultan Ismail Petra Ecosystem Protection Park (Pergau Lake), Malaysia  Mohd Parid Mamat, Mukrimah Abdullah, Nor Hizami Hassin and Faten Naseha Tuan Hussain	ECECT05

# **Sub-theme: Sustainability of Economics**

Title	Abstract No.
Should We Rely on Natural Forests to Produce Timber? A Preliminary Study of Kelantan Noraida Abd. Wahod and Abdul-Rahim Abdul Samad	ECSE01
Risk in Green Retrofits Projects: A Preliminary Study on Energy Efficiency Mohammad Syabilee Nikman Lee, Sulzakimin Mohamed, Md Asrul Nasid Masrom Muhamad Azahar Abas and Seow Ta Wee	ECSE02
Can Protection Motivation Theory Predict Consumer's Behavioural Intention toward the Choice of Certified Sustainable Palm Oil in Klang Valley Malaysia?  Suleiman Alhaji Dauda, Shaufique Fahmi Ahmed Sidique, Marcel Djama, Tey Yeung Sheng and Nor Hizami Hassin	ECSE03
A Preliminary Study of Local Behaviour, Perceptions and Willingness to Pay Towards Better Water Quality in Pasir Mas, Tanah Merah, and Jeli, Malaysia Huda Awang, Palsan Sannasi Abdullah and Zul Ariff Abdul Latiff	ECSE04
Malaysia Textile Craft Industry: Innovation Inspired by Bamboo for Batik Block Contemporary Design Hamdan Lias, Ahmad Rashdan Ismail and Haslinda Abd Hamid	ECSE05

### **Sub-theme: Agriculture**

Title	Abstract No.
Potential of Ratoon Rice Farming Development in Central Java Province, Indonesia for Climate Change Adaptation and Mitigation Rahajeng Putu Widiani Priswita, Sapja Anantanyu, Komariah, Mth Sri Budiastuti	ECAG01
Performance Evaluation of Drip Irrigation System and Water Productivity (WP) of Rock Melon Grown inside Netted Rain House Shelter Mohd Fauzie Jusoh, Nurhayatie Adnan, Muhammad Firdaus Abdul Muttalib and Ayob Katimon	ECGA02
Factors Explaining Post Harvest Practices Adoption among Fruit Farmers in Johor Tengku Halimatun Sa'adiah T Abu Bakar, Norsida Man, Nolila Mohd Nawi, Jasmin Arif Shah, Nursalwani Muhamad and Maryana Mohamad Nor	ECAG03
Seaweed Supply Chain Risk Identification in Sabah Using Fuzzy Failure Mode and Effect Analysis  Mohd Mahmud@ Mansor and Nitty Hirawaty Kamarulzaman	ECAG04
The Impact of Foot and Mouth Disease on the Meat Prices in Malaysia Abdullah Mohamad, Hanny Zurina Hamzah, Normaz Wana Ismail, Faez Firdaus Jesse Abdullah and Hirokazu Nagata	ECAG05

## **ACKNOWLEDGEMENT**





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