

**5<sup>TH</sup> INTERNATIONAL CONFERENCE ON SCIENCE AND TECHNOLOGY APPLICATIONS  
IN CLIMATE CHANGE (STACLIM 2022)**

**29 - 30 NOVEMBER 2022**

**CONFERENCE TECHNICAL PROGRAMME**

*\*MYT is Malaysian Time (UTC/GMT+8 hours)*

<b>Tuesday, 29 November 2022</b>			
<b>Time (MYT)</b>	<b>Main Room</b>		
8:30 am - 9:00 am	Virtual Conference Rooms Open for Access		
9:00 am - 9.10 am	Opening by Emcee Mr Faiz Arif		
9:10 am - 9:20 am	<b>Welcome Remarks By:</b> Assoc. Prof. Dr. Zaini Sakawi <i>Director of Institute of Climate Change (IPI), UKM</i>		
9:20 am - 9:30 am	<b>Opening By:</b> Prof. Dato' Gs. Ts. Dr. Mohd Ekhwan Hj Toriman <i>Vice Chancellor UKM</i>		
9:30 am - 10:15 am	<b>Keynote Speaker 1:</b> Prof. Dr. Lisa Stein University of Alberta, Canada Title: Microbial Solutions to Mitigating Climate Change Moderator : Prof. Ir. Dr. Mardina Abdullah, <i>Deputy Director Institute of Climate Change (IPI)</i>		
10.15 am - 10.30 am	Photo session		
10:30 am - 11:00 am	<b>Invited Speaker Session 1:</b> Prof. Dr. Fredolin Tangang Faculty of Science and Technology, Universiti Kebangsaan Malaysia Title: Future Climate Change and Weather and Climate Extremes in Southeast Asia Moderator: Assoc. Prof. Dr. Liew Ju Neng		
11:00 am - 11.30 am	<b>Invited Speaker Session 2 :</b> Assoc. Prof. Dr. Rawshan Ara Begum Macquarie University, Sydney, Australia Title: IPCC Sixth Assessment Report of the Working Group II on Impacts, Adaptation & Vulnerability: Key Messages and Implications for Southeast Asia & Malaysia Moderator: Assoc. Prof. Dr. Liew Ju Neng		
Session I	<b>Breakout Room A</b>	<b>Breakout Room B</b>	<b>Breakout Room C</b>
	Session: Atmospheric Chemistry and Physics 1 (ACP1) <b>Session Chair :</b> <b>Dr. Ooi Chel Gee</b>	Session: Land, Water and Forests 1 (LWF1) <b>Session Chair :</b> <b>Assoc. Prof. Sr. Ts.</b> <b>Gs. Dr. Khairul</b> <b>Nizam Abdul</b> <b>Maulud</b>	Session: Fisheries, Agriculture and Food Security 1 (FAFS1) <b>Session Chair :</b> <b>Dr. Noorashikin</b> <b>Md Noor</b>

11.30 am – 11:45 am	<p>T193 Preliminary Study of Topside Ionospheric Variations Using Swarm Satellites Over Malaysia Region Presenter: Siti Aminah Bahari (UKM/Malaysia)</p>	<p>T383 Assessment of Water Availability in the Sekampung Argoguruh Sub-Watershed for Sustainable Water Management Presenter: Arniza Fitri (Universitas Teknokrat indonesia/Indonesia) (10:30-10:45)</p>	<p>T2105 Proposing the Utilization of Symbiotic Algae Diversity in Specific Reef-Associated Host (Palythoa tuberculosa) to Elucidate the Effect of Climate Change in Malaysian Coral Reefs Presenter: Wee Hin Boo (UKM/Malaysia)</p>
11:45 am - 12:00 pm	<p>T135 The Impacts of the Covid-19 Movement Control Order (MCO) on Air Pollution in Malaysia industrial Area Presenter: Nor Diana Binti Abdul Halim (UKM/Malaysia)</p>	<p>T372 Dam Break Flood Mapping Analysis and Impact Assessment Using Open Source Gis Tool and Data Presenter: Sarah Hanim Samsudin (TNB Research Sdn Bhd/Malaysia)</p>	<p>T222 The comparison of relationship between climate variables and rice productivity in the clustering area on Java Island, Indonesia Presenter: Kharisma Aprilina (Indonesian Agency for Meteorology Climatology and Geophysics (BMKG)/Indonesia) (10:45-11:00)</p>
12:00 pm - 12:15 pm	<p>T174 Distance Pattern and Spacing of the Multiplanet Systems in Tess Data Presenter: L Geraldo (Rizal Technological University/Philippines)</p>	<p>T370 Leveraging Lidar for Smart Cities Climate Change Resilient: A Solar Potential Case Study in An Developing Area Presenter: S A F Syed Abdul Rahman (UKM/Malaysia)</p>	<p>T211 An overview of the issues faced by Harmful Algal Blooms along Johor straits Presenter: Mai Izatul Nuraishah (UKM/Malaysia)</p>
12:15 pm - 12:30 pm	<p>T173 Investigation of Open Cluster Ngc 7789 Using Gaia Edr3 Data Presenter: P B Tucio (Rizal</p>	<p>T369 High Resolution Regional Canopy Height Model Using Gedi Spaceborne Lidar and Synergism of Multi-Source</p>	<p>T217 A Systematic Review of Climate Change Related Coral Reef Research Trend in Malaysia</p>

	Technological University/Philippines)	Remotely Sensed Data Presenter: Esmaeel Adrah (UKM/Malaysia)	Presenter: Yu Hai Ping (UKM/Malaysia)
12:30 pm - 12:45 pm	T179 Strengthening of Winter Enso-Rainfall Relationship in Southeast Asia Under Warmer Climate Presenter: Leong Min Qi (UKM/Malaysia)	T359 Uavs for Monitoring Responses of Regenerating forests Under increasing Climate Change-Driven Droughts Presenter: Veena Ramachandran (Morobe Development Foundation/Papua) (13:30 - 13:45)	T262 Methanogenic Archaea Community in Relation to Methane Production in Oil Palm Planted on Tropical Peatland Presenter: Zahidah Ayob (Malaysian Palm Oil Board/Malaysia)
12:45 pm - 1:00 pm	T127 Temporal Analysis of Trends in Extreme Temperature indices Over Selected Area in Peninsular Malaysia form 1991-2020 Presenter: Muhammad Amir Bin Mohammad Rosli (UPM/Malaysia)		T248 Best Sustainability Practices of Weeding Operations Through integration of Cattle Grazing Activities. Presenter: Yarima Umar (USM/Malaysia)
1:00 pm - 1:15 pm			T211 Psychological effects of Arbuscular Mychorrhiza Fungi reducing Phosphate Fertilizer on the growth of oil palm Seedling Presenter: Mohd Nizar bin Khairuddin (FGV R&D SDN. BHD/Malaysia)
1:15 pm - 2.30 pm	Lunch Break		
	Breakout Room A	Breakout Room B	Breakout Room C

Session II	<p>Session: Atmospheric Chemistry and Physics 2 (ACP2) <b>Session Chair :</b> <b>Assoc. Prof. Dr. Liew Ju Neng</b></p>	<p>Session: Advanced Technology, 4IR, and Renewable Energy 1 (ATRE1) <b>Session Chair :</b> <b>Assoc. Prof. Dr. Marlia Mohd Hanafiah</b></p>	<p>Session: Human, Social, Economic and Environmental Sustainability 1 (HSEES1) <b>Session Chair :</b> <b>Dr. Nor Diana Abdul Halim</b></p>
2:30 pm - 2:45 pm	<p>T151 A Study of the Effect of Open Biomass Burning Aerosol on Rainfall Event Over Malaysia by Using Eof Analysis Presenter: Chen Yixiao (University of Nottingham Malaysia/Malaysia)</p>	<p>T489 Oil Palm Health Estimation Using Low Altitude Remote Sensing Presenter: Nurul Syafiza Binti Mohd Ejfri (UTM/Malaysia)</p>	<p>T53 Characteristics of Consumers Towards Development of Sustainable E-Waste Management in Malaysia Presenter: Dhiya Durani Sofian Azizi (UKM/Malaysia)</p>
2:45 pm - 3:00 pm	<p>T149 Spatial Temporal Pattern of Carbon Dioxide Emission from Vehicle During Pandemic Covid 19 Presenter: Nur Fatma Fadilah Binti Yaacob (UKM/Malaysia)</p>	<p>T482 Applicability of Green Building Rating tools in Minimizing the Construction Waste Within the Iraqi Building Projects Presenter: Hayder Saadoon Abdulaali (UKM/Malaysia)</p>	<p>T596 Indoor-Outdoor Living Space: Islamic Architecture insight Presenter: Salmiah Aziz (Unisza/Malaysia)</p>
3:00 pm - 3:15 pm	<p>T147 The Comparison indoor and Outdoor Pyranometer Calibration Method (Cossm) in Bmkg Jakarta Presenter: Roni Dwi Saputro (UI/Indonesia) (14:00-14:15)</p>	<p>T477 Analysis of A Tuneable Nzri Metamaterial Unit Cell for Satellite Applications Presenter: Samir Salem Al-Bawri (UKM/Malaysia)</p>	<p>T590 Life Cycle Assessment on the Potential Environmental Impact of Conventional Clay Bricks Incorporated With industrial Residue Presenter: Nur Jannah Binti Abdul Hamid (UTHM/Malaysia)</p>
3:15 pm - 3:30 pm	<p>T140 Rotated Empirical Orthogonal Function</p>	<p>T458 Optimization Pollutants Removals</p>	<p>T585 Carbon Footprint Analysis to</p>

	(REOF) Analysis of Aod Distribution Over Maritime Continent form 2001–2020 Presenter: Aulia Nisa'Ul Khoir (UKM/Malaysia)	form Wastewater Treatment Plant Using Artificial Neural Networks Presenter: Marwah M. Al-Khuzai (UKM/Malaysia & University of Al-Qadisiyah/Iraq ) (10:15-10:30)	Evaluate Carbon Dioxide Emissions and Sequestration Through Greening Strategy Among School Community Presenter: Syahidah Amni Mohamed (UMK/Malaysia)
3:30 pm - 3:45 pm	T115 Long-Range Transport of Biomass Burning Smoke Towards Peninsular Malaysia Presenter: Nur Nazmi Liyana Binti Mohd Napi (UKM/Malaysia)	T413 Big Data Science: Accurate Air Quality Index Prediction Model With Machine Learning Presenter: Afzan Adam (UKM/Malaysia)	T5115 Side effects of COVID19 vaccines among vaccinated people in Iraq - prospective cross-sectional study Presenter: Hamzah Abdulrhaman Salman (The University of Mashreq, Baghdad/Iraq) (10:30 - 10:45)
3:45 pm - 4:00 pm	T116 Spatio-Temporal Analysis of Meteorology and Air Quality Variables in Peninsula Malaysia Presenter: Zheng Yijing (UKM/Malaysia)	T410 Analysis of Navigation Satellite System Based on the Ground Control Points (GCP) at UKM Presenter: Norsuzlin Mohd Sahar (UKM/Malaysia)	
4.00 pm - 4.15 pm	Break		
	Breakout Room A	Breakout Room B	Breakout Room C
Session III	Session: Land, Water and Forests 2 (LWF2) <b>Session Chair :</b> <b>Ts. Dr. Wan Shafrina Wan Mohd Jaafar</b>	Session: Advanced Technology, 4IR, and Renewable Energy 2 (ATRE2) <b>Session Chair :</b> <b>Assoc. Prof. Dr. Marlia Mohd Hanafiah</b>	Session: Economic Sustainability 2 (HSEES2) <b>Session Chair :</b> <b>Dr. Nor Diana Abdul Halim</b>
4:15 pm - 4:30 pm	T357 Reconstruction of Temperature and Salinity Based on	T445 Characterisation of Solid Fuel Briquettes form Lignocellusic 2	T553 Preferences and Utilisation Behaviours of

	Mg/Ca and $\Delta 18O$ of Globigerinoides Ruber Presenter: Aqilah Nur Shahrudin (UKM/Malaysia)	Agricultural Waste and Plastic Waste Presenter: Nur Asyikin Binti Mokhtaruddin (UKM/Malaysia)	Youth in the Shopping Mall for Socialization Presenter: Noorliyana Binti Ramlee (UMK/Malaysia)
4:30 pm - 4:45 pm	T354 Local Variations of Landslide Factors in Pulau Pinang, Malaysia Presenter: Syaidatul Azwani Binti Zulkafli (UKM/Malaysia)	T433 Estimating of Photovoltaic Energy Saving Potential and Investment Energy Value of Urban Buildings in UKM University based on GIS Technology Presenter: Shaban R. S. Aldhshan (UKM/Malaysia)	T552 Basic Study on Sensory integration and Learning Studies Through Sensory Activities for Special Needs Students Presenter: Nurul Izzati Binti Othmani (UMK/Malaysia)
4:45 pm - 5:00 pm	T343 Sustainable industrial Wastewater Management System: Beyond Compliance Presenter: Nurul Hijrah Binti Abd Gani (USM/Malaysia)	T421 Parametric Analysis of Epsilon-Negative (ENG) and Near Zero Refractive Index (NZRI) Characteristics of Extraordinary Metamaterial for 5G Millimetre-Wave Applications Presenter: Alya Ali Musaed (UKM/Malaysia)	T544 A Review of economic value assessment of ecosystem services in protected areas; Pathways to support conservation and socio-economic development Presenter: Thaer Kareem Hassan (USM/Malaysia)
5:00 pm - 5:15 pm	T339 Bivariate Copula for Flood Frequency Analysis in Johor River Basin Presenter: Naqibah Binti Aminuddin Jafry (UTM/Malaysia)	T497 Reduction Effect on the Catalytic Activity of NiAl-SPC Derived Hydrotalcite in Methane Dry Reforming Process Presenter: Wissem Haffaf (Aboubek Belkaid University Tlemecen/Algeria) (10:15-10:30)	T542 the influence of Visual Perception Factors on the Soundscape of Urban Shopping Streets Presenter: Nor Hamizah Binti Abdul Hamid (UMK/Malaysia)
5: 15 pm - 5:30 pm			T529

			Protected Area's Social-Ecological Systems in Nigeria Presenter: Adu Habu (USM/Malaysia)
<b>End of Day 1</b>			
<b>Wednesday, 30 November 2022</b>			
8:30 am - 8:50 am	Virtual Breakout Room open for access		
8:50 am - 9:00 am	Opening by emcee Dr. Wee Hin Boo		
<b>9:00 am - 9:45 am</b>	<p style="text-align: center;"><b>Keynote Speaker 2</b> Prof. Dr. Haruko Kurihara University of Ryukyus, Japan Title: Ocean acidification impacts on marine ecosystem and its potential mitigation solutions Moderator : Assoc. Prof. Dr. Zaini Sakawi, <i>Director Institute of Climate Change (IPI)</i></p>		
<b>9:45 am - 10:00 am</b>	<b>Break</b>		
10:00 am - 10:30 am	<p style="text-align: center;"><b>Invited Speaker Session 3:</b> Prof. Dr Zulkifli Bin Yusop Universiti Teknologi Malaysia Title: Consideration on Hydrological attributes of major crops for an improved water resources management Moderator: Assoc. Prof. Sr. Ts. Gs. Dr. Khairul Nizam Abdul Maulud</p>		
10:30 am - 11:00 am	<p style="text-align: center;"><b>Invited Speaker Session 4:</b> Dr. Shantanu Kumar Pani National Central University, Taiwan Title: Biomass burning pollution over peninsular Southeast Asia: aerosol properties and environmental impacts Moderator: Assoc. Prof. Sr. Ts. Gs. Dr. Khairul Nizam Abdul Maulud</p>		
11:00 am - 11:30 am	<p style="text-align: center;"><b>Invited Speaker Session 5:</b> Dr. Saud Aldrees University of Oxford, England Title: The Production of Hydrogen through Microwave-Initiated Catalytic Dehydrogenation of Model Hydrocarbon Compounds on Fe/AC catalyst without Significant CO2 Emissions Moderator: Assoc. Prof. Sr. Ts. Gs. Dr. Khairul Nizam Abdul Maulud</p>		
	<b>Breakout Room A</b>	<b>Breakout Room B</b>	<b>Breakout Room C</b>
Session IV	<p style="text-align: center;">Session : Land, Water and Forests 3 (LWF3) <b>Session Chair :</b> <b>Ts. Dr. Wan Shafrina Wan Mohd Jaafar</b></p>	<p style="text-align: center;">Session : Advanced Technology, 4IR, and Renewable Energy 3 (ATRE3) <b>Session Chair :</b> <b>Assoc. Prof. Dr. Marlia Mohd Hanafiah</b></p>	<p style="text-align: center;">Session : Human, Social, Economic and Environmental Sustainability 3 (HSEES3) <b>Session Chair :</b> <b>Dr. Siti Norliyana Harun</b></p>
11.30 am – 11:45 am	T330	T44	T59

	<p>Recovery of Forest Structure on Post Selective Logging in Lowland Dipterocarp forest of Peninsular Malaysia  Presenter: Norzalyta Binti Mohd Ghazali (UKM/Malaysia)</p>	<p>Synthesis and Characterization of Carbon Quantum Dots and its Photoluminescent Properties  Presenter: Nurul Umairah Binti Mohd Nizam (UKM/Malaysia)</p>	<p>Screening and Optimization of a Novel Gallic Acid and Tannase Production Under Semi Quantitative and Quantitative Methods  Presenter: Alaa Ali Abdulshaheed (UKM/Malaysia)</p>
11:45 am - 12:00 pm	<p>T326  Spatio-Temporal Trends of LandUse Land Cover Changes in Nguru Wetland of Yobe State Nigeria Using GIS and Remote Sensing  Presenter: Hassan Garba (USM/Malaysia)</p>	<p>T42  Life Cycle Assessment of Carbon Capture, Utilisation and Storage Technologies: An Analytic Review  Presenter: Kalppana Chelvam (UKM/Malaysia)</p>	<p>T57  Application of integrated LCA-GIS model in the agricultural sector: A Brief Overview  Presenter: Sani Kaita Mohammed (UKM/Malaysia)</p>
12:00 pm - 12:15 pm	<p>T31  Industrial wastewater treatment methods employed in Southeast Asian countries  Presenter: Khalisah Khairina Binti Razman (UKM/Malaysia)</p>	<p>T450  Simplification Techniques of Cfd Simulations and Experimental Validation for Fluid Flow Analysis in Pem Fuel Cells : A Review  Presenter: C.T Aisyah Binti Sarjuni (UKM/Malaysia)</p>	<p>T576  A Gate-to Gate Life Cycle Assessment of Ethylene Oxide (Eo)-Based Catheter Sterilization Process  Presenter: Kavithannjali Kanniah (USM/Malaysia)</p>
12:15 pm - 12:30 pm	<p>T318  Microplastic Coagulation by Using Natural Coagulant  Presenter: Ahmad Razi Othman (UKM/Malaysia) (UI/Indonesia) (10:15-10:30)</p>	<p>T446  Developing of Iot-Based Digital Climate Station at Dramaga Climate Observational Station  Presenter: Gde Krisna Lingga Aditama</p>	<p>T568  Assessment of Household Level Adaptation Strategy to Flood in East Coast Malaysia  Presenter: Nor Diana Mohd Idris (UKM/Malaysia)</p>
12:30 pm - 12:45 pm	<p>T35  Seasonal dynamics in relation to groundwater quality in</p>	<p>T48  Environmental Performance of Biogas Production</p>	<p>T514  Rice straw valourization for bioenergy potential in Southeast Asia:</p>



	Sharada industrial area of Kano Metropolis, Nigeria Presenter: Hadiza Ado Sulaiman (UKM/Malaysia)	form Food Waste – An Lca Approach Presenter: Khalisah Khairina Binti Razman (UKM/Malaysia)	an LCA perspective Presenter: Rihana binti Mohd Firdaus Achutan (UKM/Malaysia)
12:45 pm - 1:00 pm	T366 Erosion-deposition prone Assessment Along the Kelantan and Terengganu Coasts Due to Sea Level Rise Presenter: Ts. Yannie Anak Benson (Nahrim/Malaysia)	T492 Modified Combination of Triple Split Ring Resonator Based Quad Band Single Negative Metamaterial for Mobile Services and Satellite Communication Presenter: Md Bellal Hossain (UKM/Malaysia)	
1:00 pm - 2:30 pm	Lunch Break		
	Breakout Room A	Breakout Room B	
Session V	Session : Atmospheric Chemistry and Physics 3 (ACP3) <b>Session Chair : Dr. Ooi Chel Gee</b>	Session : Advanced Technology, 4IR, and Renewable Energy 4 (ATRE4) <b>Session Chair : Assoc. Prof. Dr. Wan Hanna Melini Wan Mohtar</b>	
2.30 pm - 2:45 pm	T171 Identifying Cluster Members of NGC 869 and NGC 884 Using A Combined Machine Learning Method Presenter: R M D Guido (Rizal Technological University/Philippine )	T319 Mapping Olive Plantations Using Sentinel-2 MSI Imagery Case Study: Bashiqa City, Iraq Presenter: Jwan Al-Dosky (Bangor University/UK) (18:30-18:45)	
2:45 pm - 3:00 pm	T164 influence of Vehicular Emissions and Meteorological Factors towards Anionic Surfactants in Urban Atmospheric	T365 Modelling of Geospatial Data Through Multi Criteria Analysis for Cemetery Land Management	

	Aerosol of Kuala Lumpur, Malaysia Presenter: Muhammad Afiq Bin Mohd Nor (UPSI/Malaysia)	Presenter: Fairuz bin Mohamad (UKM/Malaysia)	
3:00 pm - 3:15 pm	T138 Exploring Rainfall Variabilities Using Statistical Functional Data Analysis Presenter: Shariffah Suhaila Syed Jamaludin (UTM/Malaysia)	T337 Preliminary Soil Characteristics and Growth Performance of Selected Shrub Plants for Bio-Engineering Technique Presenter: Mohamad Edri Bin Aznan (UKM/Malaysia)	
3:15 pm - 3:30 pm		T332 Assessing Forests Carbon Accumulation Potential Across Different Forest Treatments Using Field inventory Data Presenter: Siti Munirah Binti Mazlan (UKM/Malaysia)	
<b>END OF CONFERENCE</b>			