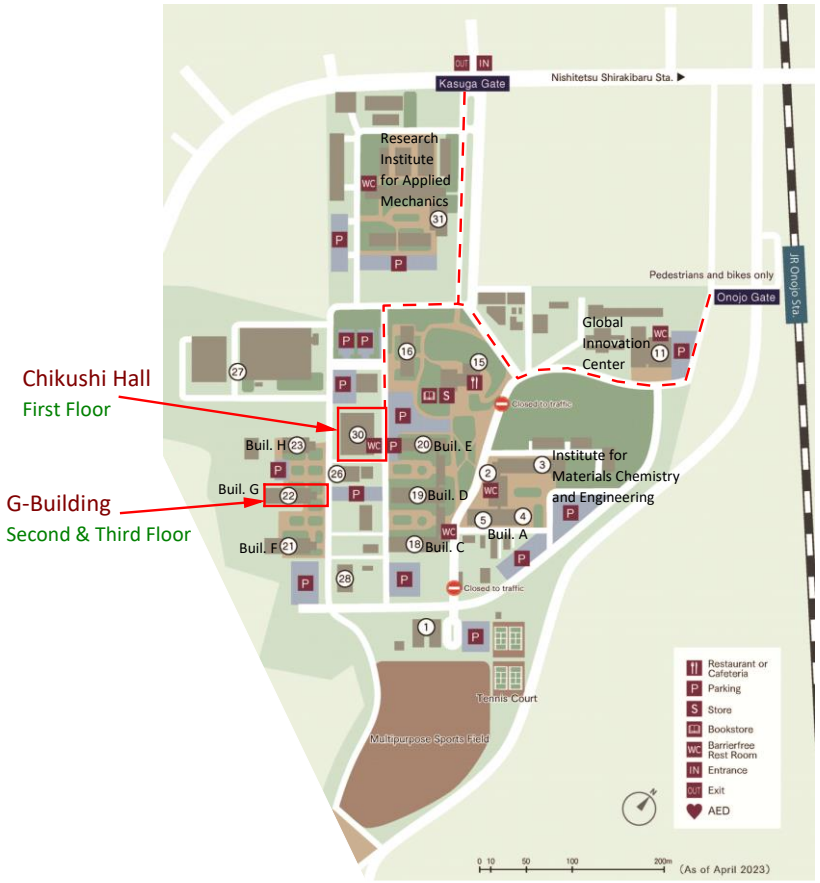
10th International Exchange and Innovation Conference on Engineering & Sciences (IEICES) 2024

October 17-18, 2024

Kyushu University, Fukuoka City, Japan

The conference program time follows Japan Standard Time (JST)

Venue information



Chikushi Campus, Kyushu University, 6-1 Kasuga-koen, Kasuga, Fukuoka, 816-8580, Japan.

09:30	10:00	Registration (Lobby, C-Cube Building)
10:00	10:10	*Welcome Speech*: Assoc. Prof. Osama Eljamal
10:10	10:40	Open Remark and Introduction of IGSES: Dean of IGSES
10:40	11:00	Photo Session and Coffee Break
Venue		**Keynote Session K1 (Chikushi Hall)**
Session Chair *Co-chair*		*Sam Bessai* *Feng Xuening*
11:00	11:30	Title: Green Technology and Governance in Mega Universities: Islamic Perspectives and Leadership Insights Speaker: Professor Datuk Dr Shahrin Sahib
11:30	12:00	Title: The Theory of Microwave-Driven Catalysis and Its Application Speaker: Professor Shuntaro Tsubaki
12:00	13:10	Lunch Break

Session 1

Venue		C-Cube Chikushi Hall	G-Building, Room 206	G-Buiding, WEEL Room 310
Session Chair *Co-chair*		*Ibrahim Atito* *Jung Eui Young*	*Sara Bruhier* *Tong Tingzhou*	*Mohammed Lamien* *Dina Elsalamony*
13:10	13:18	**Smart Shopping Cart Mobile Application (SmartCart): A Collaborative Shopping Cart System Across Multiple Devices** Muhammad Amirul Asyraaf Roslan, Haryani Haron, Universiti Putra Malaysia, Malaysia	**Enhancing the Chemical Properties and Recovery Rates of Organic Fertilizer through Carbon-to-Nitrogen (C/N) Ratio Manipulations of Biomass Wastes** Arsenio Jr. D. Bulfa, Fionna May J. Chuang, Jose Edwin C. Cubelo, Marjun C. Alvarado College of Agriculture, Philippines	**Ultrasonic Influence on Germination and Early Growth of Bell Pepper Seeds** Marjun C. Alvarado, Arsenio D. Bulfa Jr. Annalissa L. Aquino University of the Philippines Los Baños (UPLB), Laguna Philippines
13:18	13:26	**Performance Assessment of PySEBAL Model-Derived Evapotranspiration Using Eddy Covariance Measurements in the Philippines** Alvin John B. Felipe, Ronaldo B. Saludes, Rubenito M. Lampayan, Patrick Lemuel P. Relativo University of the Philippines Los Baños, Philippines	**Banana Peel Waste as a Source of Nanocellulose Materials - Recent Progress, Challenges and Future Prospects** Marjun C. Alvarado, Kevin F. Yaptenco, Ma. Cristine Concepcion D. Ignacio, Ma. Camille Acabal, Antonio L. Acedo Jr. University of the Philippines Los Baños (UPLB), Laguna Philippines	**The Influence of Soccer Boots Insole's Surface Roughness and Hardness on Short-Sprint and Change of Direction Performance** Muhammad Shaleh Mazuki, Shariman Ismadi Ismail, Norasrudin Sulaiman, Rahmat Adnan, Hiroyuki Nunome, Uwe Gustav Kersting, Motohide Arayama, Mohamad Nizam Nazarudin, Solehuddin Shuib Universiti Teknologi MARA, Malaysia
13:26	13:34	**Suitability Evaluation of Existing Agrometeorological Network in Luzon, Philippines Using GIS-based Analytical Hierarchy Process (AHP)** Alvin John B. Felipe, Jeremiah G, Magallanes, Michel P. Abriol University of the Philippines Los Baños, Philippines	**Evaluating the Performance of Multiple Carbon Capture Technologies of Hot Potassium Carbonate (HPC) and Monoethanolamine (MEA)** Rudha Khudhair Mohammed, Hooman Farzaneh Kyushu University, Japan	**Design and Development of Combined Cacao Bean Dehuller-Pulverizer Machine for Cocoa Powder Processing** Jack O. Bertulfo, John Eduard Mendoza, James Patrick G. Cular Agusan del Sur State College of Agriculture and Technology, Bunawan, Philippines
13:34	13:42	**Optimal Allocation of Renewable Energy Resources to Improve Voltage Profile and Minimize Power Losses on the Most Critical Buses Prone to Voltage Instability** Okendo Edwin Otieno, Farzaneh Hooman Kyushu University, Japan	**Evaluation of the Morphological and Physiological Changes of Okra (Abelmoschus esculentus) during Seed Maturation** Arsenio Jr. D. Bulfa, Marjun C. Alvarado, Annalissa L. Aquino, Silliman University, Philippines	**Development of Rubber Creping Machine for Improved Profitability in Rubber Production in Agusan del Sur, Philippines** Mariam A. Bumaras, Daylen Ann M. Hermosilla, Jack O. Bertulfo Agusan del Sur State College of Agriculture and Technology, Philippines
13:42	13:50	**Optimized Design of a DCM Single-Input Dual-Output DC-DC PFM Boost Converter Featuring Zero Current Detection** Junric D. Veras, Shimie A. Baghari, Re-Ann Cristine O. Calimpusan Caraga State University, Phillipines	**A Preliminary Assessment of the Potential of Boiler Ash and Spent Bleaching Earth as Raw Materials for Bricks Production** Jennieveb H. Poliran, Jumil M. Pelayo, Jack O. Bertulfo Caraga State University, Philippines	**Investigation of the Effects of Waste Stone Powder as an Additive for Alluvial Soil** Julia Beatriz Dimalanta, Vaughn Rovin Garcia, Winzly Lao, Joenel Galupino, Mary Ann Adajar De La Salle University – Manila, Philippines

13:50 13:58	**Energy Inputs and Economic Analysis of Organic and Inorganic Rice Production in Agusan Del Sur, Philippines** Jane M. Tecson, Julie O. Lucnod, Agusan del Sur State College of Agriculture and Technology, Philippines	**Effects of Chitosan and Pomelo (Citrus Maxima var. Magallanes) Peel Extract on the Postharvest Quality and Shelf Life of Bitter Gourd (Momordica Charantia l. var. Galaxy Max F1) under Ambient Condition** Presneil S. Maglasang, Glysdi Care S. McCarthy, Philip Donald C. Sanchez, Febie T. Paglinawan Caraga State University, Butuan City, Philippines	**Utilization of Agricultural Wastes in Enhancing Strength and Reducing Shrink-Swell Potential of Expansive Soils** Mary Ann Adajar, Edward Andrei Cacho, Mishael Joy De Castro, Peter John Robles, and Daniel Alfonso Uson De La Salle University, Philippines
13:58 14:06	**Assessing Videogrammetric Techniques for Measuring High Aspect Ratio Wing Deflection in Wind Tunnel Application** Norzaima Nordin, Mohammad Yazdi Harmin Universiti Pertahanan Nasional Malaysia, Malaysia	**Valorization and Characterization of Spray-Dried Unsalable Ripe Papaya (Carica papaya L.) Puree as Potential Food Flavoring Powder** Anna Mae A. Apatan, Dexter D. Pabatang, Philip Donald C. Sanchez, Genesis Jared A. Cutamora, Marjun C. Alvarado Caraga State University, Philippines	**Enhancing 3D Printed Bed-Resting Ankle-Foot Orthosis Design through Topology Optimization** Amir Mustakim Ab Rashid, Ahmad Haziq Darwisy Mukhainizam, Helmi Rashid, Muhammad Hanif Ramlee, Azizah Intan Pangesty, Abdul Halim Abdullah Universiti Teknologi MARA, Malaysia
14:06 14:14	**Effect of Air Jet Splitting on the Elliptical Burner Inverse Diffusion Flame Characteristics: A Computational Study** Ahmed A. Mahgoub, Eslam I.Mohamed, Ahmed A. Adam, Mohamed S. Mohamed Gamal, Ahmed M. Abdulnaim, Ahmed H. Elkholy, Mohamed Elmously Helwan University, Egypt	**Modified Biochar for Antibiotics Removal in Aqueous Environments: A Mini Review** He Xiaoran, Osama Eljamal, Bidyut Baran Saha Kyushu University, Japan	**Challenges and Future Directions in Cacao Bean Hulling and Grinding Process Technology: A Review** Reca S. Bautista, Rossana Marie C. Amongoi University of the Philippines Los Baños (UPLB), Laguna Philippines
14:14 14:22	**The Peri-Urban Sprawl: Characterization and Analysis of Rice Cropland Conversion Using Remote Sensing and GIS Techniques in Butuan City** Charlene A. Bentozal, Glorie Joy C. Malaluan, Jun Love E. Gesta , Lorie Cris S. Asube Caraga State University, Philippines	**A Comparative Study on the Correlation of Geomagnetic Variations dB/dt between Low-Latitude Stations** Aznilinda Zainuddin, Muhammad Asraf Hairuddin, Zatul Iffah Abd Latiff, Anwar Santoso, Felipe Benavides, Ahmad Ihsan Mohd Yassin, Mohamad Huzaimy Jusoh, Universiti Teknologi MARA, Malaysia	**Short-Term Photovoltaic Power Forecasting Using a Neural Network Dynamic Time Series** Thatree Mamee, Usa Boonbumrung, Netithorn Ditnin, Patamaporn Sripadungtham, Nitikorn Nanthawirojsiri King Mongkut's University of Technology Thonburi (KMUTT), Thailand
14:22 14:30	**Differential Diffusion Effect in H_2/NH_3 Non-Premixed Flames and Flamelet-Based Models** Ahmed Adam, Reo Kai, Hiroaki Watanabe Kyushu University, Japan	**Development of a Cacao (Theobroma cacao L.) Bean Huller** Reca S. Bautista, Arnold G. Apdohan, Rossana Marie C. Amongo University of the Philippines Los Baños (UPLB), Laguna Philippines	**Bacterial Properties, Carbon-Nitrogen Profile, and Plant Growth Potential of Limestone Mining Overburden** Reginawanti Hindersah, Noor Muhammad Mauludy, Betty Natalie Fitriatin, Toto Sunarto, Saon Banerjee Universitas Padjadjaran, Indonesia
14:30 14:38	**Assessment of Synthetic Aperture Radar (SAR) and Optical Remote Sensing Data in Aboveground Carbon Stock Estimation of Coconut (Cocos nucifera L.) in Butuan City** Gracelle W. Antiporda, Karla Marie E. Bernaldez, Jun Love E. Gesta Caraga State University, Philippines	**Atrial Fibrillation Denoise Using Wavelet Adaptive Filter** Nur Izzani Mat Rozi, Tan Jia Min, Fakroul Ridzuan Hashim, Shazreen Shaharuddin, Maizatullifah Miskan, National Defence University of Malaysia, Malaysia	**Effects of Different Cutting Heights and Irrigation Techniques on the Yield Performance of Ratoon Rice (Oryza sativa)** Jane M. Tecson, Roger C. Montepio Agusan del Sur State College of Agriculture and Technology, Philippines
14:38 14:46	**Comparative Analysis of Integration Indices and Object-Based Approach Using Sentinel-2 Data for Effective Monitoring of Aquaculture Fish Cages in Nasipit Port, Agusan Del Norte** Rod Aaron P. Cataluña, Daniel C. De La Cena III, John Rudmark L. Ebol, Arturo G. Cauba Jr. Caraga State University Philippines	**Assessment of Geomagnetically Induced Currents (GICs) in Johor Malaysia During the Severe Geomagnetic Storm of 11th May 2024** Zatul Iffah binti Abd Latiff, Aznilinda Zainuddin, Muhammad Asraf Hairuddin, Nur Dalila Khirul Ashar, Mohamad Huzaimy Jusoh Universiti Teknologi MARA, Malaysia	**Towards Becoming Energy-Independent Village: A Case Study of Solar Rural Electrification in Lalumpe Village, Indonesia** Meita Rumbayan, Christy Pasiowan, Alwin Sambul Sam Ratulangi University, Indonesia
14:46 15:00	Coffee Break		

Session 2

Venue	C-Cube Chikushi Hall	G-Building, Room 206	G-Buiding, WEEL Room 310
Session Chair *Co-chair*	*Wu Bingsheng* *Jin Haoyu*	*Mohammed Abdu* *Md. Zakir Hosen*	*Alphonce Mulumba* *Okendo Otieno*
15:00 15:08	**Optical Imaging Sensor Design Considerations for Nanosatellite's Camera Mission Payload** Fatimah Zaharah Ali, Mohamad Huzaimy Juson, Mardeni Roslee, Ramson Nyamukondiwa Universiti Teknologi MARA, Malaysia	**The Effect of Immersion Weathering on the Tensile Properties of rHDPE Green Composite Material** Maidiana Othman, Nor Akmar, Siti Khadijah Che Osmi, Nor Zaima Nordin, Nur Fadzilatulhuda Abd Halimee National Defence University of Malaysia, Malaysia	**Mapping Bamboo Species in Agusan Del Norte, Caraga Region Using Remote Sensing and GIS Techniques** Arturo G. Cauba Jr., Raymark S. Corpuz, Jemuel Lusterios Caraga State University, Philippines
15:08 15:16	**IoT-Based Climate Control System for Cultivation of Oyster Mushroom (Pleurotus ostreatus) Fruiting Bag** Chris Jasmine T. Niog, Ronieto N. Mendoza, Lovely Mae Dagsa, Jake C. Martinez Caraga State University, Phillipines	**Design and Development of a Hand-Operated Cacao Pod Splitting Device** Aljon E. Bocobo, Rey B. Padios Jr, Joe Ann L. Gaballo Caraga State University, Philippines	**Design and Simulation of Natural-Slope Reinforcement using Non-Frame Method: A Case Study in Davao City, Philippines** Mardione Aalbert Mozo, Jan Earl A. Lanzar, Lindsay D. Sefuentes, Diane Therese O. Villa-Abrille Ateneo de Davao University, Philippines
15:16 15:24	**Optimizing PV Solar Deployment on Hilly Terrain: Techno-Economic Analysis of Grading and Dynamic Mismatch Losses** Abderrahmane Nafa, Michele Curcio Pacifico Energy K.K., Japan	**The Effect of the Matric Suction of Compacted Polyurethane-Clay Liner on the Development of Desiccation Cracks** Cielo D. Frianeza, Mary Ann Q. Adajar De La Salle University, Philippines	**Real-Time Monitoring and Adaptive Control of Solar Panel Cooling for Enhanced Power Harvest Through IoT Integration** Mae Ann T. Pojas, Mark James M. Magayon, Alfred Dennis B. Balamad, Jeffrey T. Dellosa, Lovely Mae Dagsa Caraga State University, Philippines
15:24 15:32	**Assessing the Irrigability Index of Selected Irrigation Systems in Camarines Sur, Philippines** Jona B. Clarianes, Rubenito M. Lampayan, Roger A. Luyun Jr. University of the Philippines Los Baños, Phillipines	**Yield Estimation of Major Crops in Butuan City, Agusan del Norte Using Geospatial Techniques** Edgardo Ricardo B. Sajonia Jr., Anamarie P. Sajonia Caraga State University, Philippines	**Propulsion Requirement and Analysis of a Canard Prandtl – Wing Unmanned Aerial Vehicle Platform for Civilian-Oriented Missions** Cindy May C. Belivestre, Jonathan C. Maglasang Caraga State University, Philippines
15:32 15:40	**Using GIS and Analytical Hierarchy Process (AHP) For Suitability Mapping of Potential Sites of Bamboo Species Plantation in Agusan Del Norte** Arturo G. Cauba Jr., Christian Dale Cunanan, Raymart B. Monteclaro Caraga State University, Phillippines	**Development of Biofilter Using a Biochar from Pericarp of Durian, Mangosteen, and Banana in Reducing Nickel Concentration in Wastewater** Floramae A. Cerro, Dhave G. Algo, Juven G. Luzorata, Aljon E. Bocobo, Ephraim Joy B. Beltran Caraga State University, Philippines	**Influence of Temperature on Ignition Loss and Morphology of Horsetail Ash** Francis Matthew Chuyaco, Warren Cedric O, Florissa Tan, Audrey Kashmir Vasquez, Joenel Galupino, Erica Elice Uy, Irene Olivia Ubay-Anongphouth, Jomari Tan, Cris Angelo Fernandez, De La Salle University, Philippines
15:40 15:48	**Dynamic Control Comparison: Tuned-PID vs Trained Reinforcement Learning of the Double Inverted Pendulum on a Two-Wheeled Platform** Sean Audie I. Buscano II, Re-Ann Cristine O. Calimpusan , Rudolph Joshua U. Candare, Ydron Paul C. Amarga Caraga State University, Philippines	**Design and DevelopMent of an Internet of Things (Iot)-Based Air Quality Monitoring System for Libjo Mining Corporation** Dhan Jharyd B. Felias, Donald P. Mondea, , Jeffrey T. Dellosa, Ronieto N. Mendoza Caraga State University, Philippines	**Study on Combustion Performances and Droplet Combustion Characteristics of Palm Oil Biodiesel Blends Fuel** Norwazan Abdul Rahim, Ameer Suhel, Muhammad Zuhair Habibudin, Muhammad Danial Muhammad Afiq Wong, Jason Te Juin National Defence University of Malaysia, Malaysia
15:48 15:56	**Mapping Suitable Solar Farm Sites in Suez Governorate via Remote Sensing and GIS Techniques** Mohammed Hussien Yadem Lamien, Hooman Farzaneh Kyushu University, Japan	**Evaluating the Potential of Maize (Zea Mays) Cobs for Mercury Removal from Small-Scale Gold Mining Wastewater** Joan Jane J. Sanchez, Jonathan M. Yu, Dale R. Moran Caraga State University, Philippines	**Design, Fabrication and Performance Evaluation of Sweet Potato (Ipomoea batatas L.) Flour Mill for Small-Scale Applications** Nervine Dave C. Docdoc, Beverly S. Morales, Cindy May C. Belivestre Caraga State University, Philippines

15:56 16:04	**Estimation of Compression Index Using Genetic Algorithm Approach** Sean Cavan C. Co, Jerome Martin S. Du, Hans Daniel Faith G. Ong, Mikee Janine T. Uy Ching, Erica Elice S. Uy, Joenel G. Galupino De La Salle University, Philippines	**Advances and Prospects of Microbial Fuel Cells** Yang Shenghao, Osama Eljamal Kyushu University, Japan	**Geopolymerization Potential of Gold Mill Tailings in Mindanao, Philippines** Ephraim Joy B. Beltran, Mary An M. Atamosa, Renan N. Bronio, Gerome L. Amper Caraga State University, Philippines
16:04 16:12	**Modeling Carbon Storage and Sequestration in Taguibo Watershed, Butuan City, Philippines Using GIS and InVEST Technology** Aljon E. Bocobo, Cristal Mae M. Salte, Maryellyneith B. Tagaro Caraga State University, Philippines	**Evaluation of Guso (Kappaphycus alvarezii) Seaweeds as Edible Coating to Eggplant (Solanum melongena var. Calixto) Stored under Ambient Conditions** Jhiemea Y. Bautista, Mary Joy C. Lim, Neil Caesar M. Tado, Febie T. Paglinawan Caraga State University, Philippines	**Solar Tracking System for a Floating Solar Panel System (FPSP)** Rhea Mae A. Cañete, Alexander T. Demetillo, Lovely Mae Dagsa, Joshua A. Orillaneda, Alfred Dennis B. Balamad Caraga State University, Philippines
16:12 16:20	**Renewable Energy Resource Assessment for Agusan Del Norte, Caraga Region, Philippines** Cindy May C. Belivestre, Harold Panganoron Caraga State University, Philippines	**Application of Aloe Vera Gel Edible Coating Combined with Rosehip Oil for Postharvest Quality of Sweet Pepper (Capsicum annum L. var. Emperor) under Ambient Condition** May Rose B. Osoteo, Arnel Fernandez, Marc Lowell Villote Caraga State University, Philippines	**Development of Ophthalmology Eye Examination Device Using 3D Printing Technology** Abdul Halim Abdullah, Firdaus Alimarizan, Nor Azimah Abd. Aziz, Fatin Hazwani, Shahrul Hisyam Marwan Universiti Teknologi MARA (UiTM), Malaysia
16:20 16:28	**Assessment of Household Flood Vulnerability in Panaytayon, RTR Using Multi-Criteria Decision Making and Geographic Information Systems (GIS) Techniques** Alma Rizza H. Delfin, Ana Maria A. Salazar, Eric Dave Doria, Jun Love E. Gesta Department of Geodetic Engineering, Philippines	**Strategy for Development of Infrastructure and Supporting Facilities for Tourism Villages: Study at Wewengkon Citorek** Ardiansyah, ST., MT, Muhammad Rijal, ST., MT, Wakyudi, S.P., M.Si Ahmad Dahlan Institute of Technology and Business, Idonesian	**Development of First Grade Seismic Microzonation Map for Surigao City, Surigao del Norte, Caraga, Philippines** Marc Lin F. Abonales, Robert A. Romero, Stephanie Mae S. Albores, Sicenio D. Abera, Jr., Erwin D. Mendoza Caraga State University, Philippines
16:28 16:36	**Auto Tree Counting for Oil Palm Plantation Based on Uav/Drone Orthophoto** Mohd Khairul Bazli Bin Mohd Aziz, Eiffel Syafhamka Nadimen A/L Syamsul, Wan Mohd Rozaimi Bin Wan Mustafa Universiti Malaysia Pahang Al-Sultan Abdullah, Malaysia	**Determining the Optimum Moisture Content (OMC) and Maximum Dry Density (MDD) of Roller-Compacted Concrete: A Basis of Its Optimum Design Mix** Carmel S. Burlat, Marc Lin F. Abonales, Shelah Grace C. Hebra, Mark Crysler F. Valeros Caraga State University, Philipines	**Modeling the Current and Future Potential Distribution of Mangkono (Xanthostemon Verdugonianus) in Caraga Region Using Species Distribution Modeling Technique** Danielle Krizzia G. Bacera, Arturo G. Cauba Jr. Caraga State University, Philippines
16:36 16:50		Coffee Break	

Session 3

Venue	C-Cube Chikushi Hall	G-Building, Room 206	G-Buiding, WEEL Room 310
Session Chair *Co-chair*	*Jung Eui Young* *Ibrahim Atito*	*Pan Su* *Wu Binsheng*	*Tong Tingzhou* *Sara Bruhier*
16:50 16:58	**Real-time IoT-based Motorcycle Accident Detection and Alert System** Elamae B. Sevandal, Myla Fe T. Menque, Lovely Mae Dagsa, Alfred Dennis B. Balamad, Edgardo Ricardo B. Sajonia Jr. Caraga State University, Philippines	**Metal Accumulation of Plants in a Nickel Laterite Mine and Their Phytoremediation and Phytomining Potential** Abigael L. Balbin, Ian Dominic F. Tabañag, Jundy D. Lozano University of San Carlos, Philippines	**Scan to BIM for Building Asset Management** Hafizah Ramli, Mustaffa Anjang Ahmad, Ahmad Sha'rainon Md Shaarani Universiti Tun Hussein Onn, Malaysia
16:58 17:06	**Enhanced Campus Communication Hub Through Wi-Fi Optimization and Emergency Earthquake Notifier (ECHOER)** Cebenerio Janus M. Dispo III, Alfred Dennis B. Balamad, Ronieto N. Mendoza, Alexander T. Demetillo, Caraga State University, Philippines	**Synthesis of Silver Nanoparticles in Walnut Waste Extract by Pulsed Plasma Method** Altynai Abdirashitova, Kalipa Salieva, Adilet Zhakypbekov, Ruslan Adil Akai, Aydaikan Kasymakunova, Bakyt Borkoev, Emil Omurzak Kyrgyz-Turkish Manas University, Kyrgyzstan	**Evaluating Seismic Vulnerability and Enhancing Resilience of Road Infrastructure: A Comprehensive Bibliometric Analysis** Cris Angelo Fernandez, Joenel Galupino, Lessandro Estelito Garciano, Rainier Lawrence Valdez, Jomari Tan, Erica Elice Uy, Irene Olivia Ubay-Anongphouth De La Salle University, Philippines

17:06 17:14	**Determining the Correlation between Abaca (Musa textilis) Distribution Patterns and Bunchy Top Disease Prevalence in the Caraga Region through Spatial Point Pattern and Statistical Analysis** Hazel Anne F. Animo, Mitche R. Tajale, Arnaldo C. Gagula, Elizabeth P. Parac, Caraga State University, Philippines	**Study on Indoor Thermal Environment and Thermal Comfort in an Air-Conditioned Mosque during Prayer Times in the Tropical Climate of Malaysia** Andi Taufan, Sheikh Ahmad Zaki, Ng Wai Tuck, Hom Bahadur Rijal, Nor'Azizi Othman Universiti Teknologi Malaysia, Malaysia	**Integrated Framework for Analyzing Seismic Hazard, Exposure, and Vulnerability in Damage and Loss Assessment of Water Network System** Rainier Lawrence A. Valdez, Andres Winston C. Oreta De La Salle University, Philippines
17:14 17:22	**Spatio-Temporal Patterns Analysis of Road Accidents in Butuan City Using Geographic Information System (GIS)** Jayson V. Jamelo, Christian Joe F. Saldia, Eric Dave D. Doria, Arnaldo C. Gagula Caraga State University, Philippines	**Co-composting of Dried Sludge Types and Food Waste Using Compost Barrel** Marcelino N. Lunag Jr., Prendonn R. Ocon, Earl Jonas C. Wagan, Luis Alphonso C. Aunor, Marvin Clark O. Bartolome, Carl Bryan P. Pacol, Tyron Clemens B. Palitayan, John Cedrex C. Quimson, Lucky Jemard F. Quintay, John Michael M. Simon, Kristian Matthias A. Luquingan Saint Louis University, Philippines	**Biomechanical Evaluation of Three-Dimensional Printed Leg Orthosis for Ankle Fixation: Finite Element and Thermal Analysis** Zatul Faqihah Mohd Salaha, Siti Nursa'adah Jauhari Efendie, Muhammad Izzuddin Abd Samad, Muhammad Hanif Baharuddin, Abdul Halim Abdullah, Muhammad Hanif Ramlee Universiti Teknologi Malaysia, Malaysia
17:22 17:30	**Mapping of Potential Sites of Bamboo Plantation in Agusan del Norte, Philippines using Species Distribution Modelling** Arturo G. Cauba Jr., Christian Dale Cunanan, Raymart B. Monteclaro, Caraga State University, Philippines	**Study of Passive Design in Architecture to Reduce Energy Consumption and Global Warming** Novalinda, Hendra Susilo, Khairul Fahmi University Pembangunan Panca Budi, Indonesian	**Development and Analysis of 3D-Printed Knee Orthosis for Post Anterior Cruciate Ligament Injuries Rehabilitation** Siti Adawiyah Zulkefli, Nur Syamimi Ismail, Muhammad Izzuddin Abd Samad, Muhammad Hanif Baharuddin, Abdul Halim Abdullah, Muhammad Hanif Ramlee Universiti Teknologi Malaysia, Malaysia
17:30 17:38	**Optimizing Manning's Roughness Coefficient for Hydraulic Modelling: An Application for Pinacanauan de Tuguegarao Watershed, Philippines** Policarpio L. Mabborang Jr., Jonathan A. Saturno, Jose D. Guzman, James B. Cabildo, Rio Jay R. Banan, Luzviminda M. Adolfo Cagayan State University, Philippines	**Concise Review of TADF: Basic Principles, Material Design, Prospective Applications, and the Role of ROMP in Polymer Synthesis** Mahmoud Z. Basyouni, Mohammed F. Radwan, Mohamed E. Abdu, Andrew M. Spring Kyushu University, Japan	**Evaluating Calibration Potential in River Hydraulic Modelling Based on Critical Slope: A Case Study of Sungai Pahang Basin** Mohd Aliff Mohd Anuar, Mohd Shalahuddin Mohd Adnan, Lim Foo Hoat, Veianthan Jayaramu, Lee Wei Koon, Mohamad Hafiz Hassan Universiti Tun Hussein Onn Malaysia, Malaysia
17:38 17:46	**A Novel, Inventive, and Automated Solar-Powered Pest Light Trapping Machine with a GSM-based Monitoring System Using Arduino Microcontrollers** Elaine Grace Q. Lariosa, Jetro M. Juntilla, Glenn V. Villafuerte, Isagani M. Roma, Jeffrey T. Dellosa, Re-Ann Cristine O. Calimpusan Caraga State University, Philippines	**Low-Cost Microbial Fuel Cell Utilizing Bacillus licheniformis for Simultaneous Cadmium Reduction and Bioelectricity Production from Mine Wastewater** Gerome L. Amper, Christen Joy D. Ague, Jessel Vernadeth C. Tadem Caraga State University, Philippines	**A Comparative Study of Flame Structure, Heat Transfer, and Exhaust Emissions of a Coaxial Burner Fitted with Multiple Air and Fuel Injection Fingers** Neama Y. Ramadan, Moustafa A. GamalEldin, Ahmed A. Mahgoub, Ahmed M. Abdulnaim, Ahmed A. Adam, Ahmed A. Emara, Hany A. Moneib Helwan University, Egypt
17:46 17:54	**Dynamic Coupling Studies of Cooperative Behavior and Synchronization on Complex Networks** Haoyu Jin, Jun Tanimoto Kyushu University, Japan	**Essential Oils in Starch-Based Edible Coatings for Fruit Storage Applications: A Mini Review** Laras Putri Wigati, Fumina Tanaka, Fumihiko Tanaka Kyushu University, Japan	**Determination of Concentrations of Camellia Sinensis Oil on Preservation of Cool Stored Strawberry** Tran Thi Van, Fumina Tanaka, Fumihiko Tanaka Kyushu University, Japan
17:54 18:02	**Synergistic Paradigms: Developing R&D and Extension Framework for Sustainable Agrifood Systems** Michelle V. Japitana, Rex G. Parro, Stephanie Mae S. Albores, Lorie Cris S.	**Scaling Up Chitin Extraction from Shrimp Shell Using Symbiotic Co-Lactic Acid Fermentation and Proteolytic Fungal Fermentation in Stirred Tank Bioreactor**	**Conceptual Overview of Korea's Smart Green City Project on the Perspective Sustainability and Smartness in Smart Sustainable Cities** MyungHee Kim Sahmyook University, South Korea

	Asube Caraga State University, Philippines	Jariya Ruangwicha, Benjamas Cheirsilp, Wasana Suyotha Prince of Songkla University, Thailand	
18:02 18:10	**Understanding Geomorphological Dynamic of the Pahang River Basin and Its Sub Basin by Assessing Hypsometric Analysis** Mohd Aliff Mohd Anuar, Mohd Shalahuddin Mohd Adnan, Mohamad Hafiz Hassan, Mohd Sofiyan Sulaiman, Lee Wei Koon Universiti Tun Hussein Onn Malaysia, Malaysia.	**Effects of Different Proteases on Degree of Hydrolysis and Antioxidant Activity of Mung Bean Hydrolysates** Sabaitip Phimsen, Benjamas Cheirsilp, Aem Nuylert, Prince of Songkla University, Thailand	**Biomechanical Evaluation of Three Dimensionally Printed Passive Transfemoral Leg Socket Compliance with ISO 10328: A Comparison of Two Different Designs** Nurin Tihani Nazemi, Anis Zulaikha Muhammad Shahril, Muhammad Hanif Baharuddin, Muhammad Izzudin Abd Samad, Jennifer Olsen, Kheng-Lim Goh, Sudarsan Swain, Abdul Halim Abdullah, Mohammad Ikhwan Jamaluddin, Muhammad Hanif Ramlee Universiti Teknologi Malaysia, Malaysia.
18:10 18:18	**Adaptive-XGBoost for Improved Long-Term Multi-Step Traffic Flow Prediction** Mas Omar, Fitri Yakub, Andika Aji Wijaya, Azizul Azizan, Shamsul Faisal Mohd Hussein, Niranjana Govindan Universiti Teknologi Malaysia, Malaysia	**Impact Assessment of the Government-installed Solar-Powered Irrigation Systems in Agusan del Sur** Art M. Dalman, Dazzelle Marie L. Jimena, Chivy M. Soliman, Aljon E. Bocobo Caraga State University, Philippines	**Design and Development of Coconut Fiber Sandwich Panel Ceilings** Rilya Rumbayan, Imran Musanif, MY Noorwahyu Budhyowati, Febriane Paulina Makalew, Beldy Tombeg Manado State Polytechnic, Indonesian
18:18 18:20		Closing Remarks	

Venue	**Keynote Session K2 (Chikushi Hall)**	
Session Chair	*Sam Bessai*	
Co-chair	*Xie Yu*	
09:30 10:00	Title: Opto-Electronic Device and Photonic Integrated Circuits by Using Nano-Pixel Waveguide Speaker: Professor Kiichi Hamamoto	
10:00 10:30	Title: Frontiers of Oxide Thermoelectric Materials for Power Generation Applications Speaker: Professor Michitaka Ohtaki	
10:30 10:45	Coffee Break	

Session 4

Venue	C-Cube Chikushi Hall	G-Building, Room 206	G-Buiding, WEEL Room 310
Session Chair	*Okendo Otieno*	*Jin Haoyu*	*Md. Zakir Hosen*
Co-chair	*Mohammed Lamien*	*Pan Su*	*Mohammed Ali*
10:45 10:53	**Analysis of Obese Patients Using Machine Learning to Categorize Hidden Risk Factors in Explorative Assessment** R.Krishnamoorthy, Kazuaki Tanaka, R.Thiagarajan Chennai Institute of Technology, India	**Comparisons of Statistics for Wind Speeds Around an Isolated Building Determined by Wind-Tunnel Experiment and Numerical Simulation** T. Tong, Y. Li, W. Wang, N. Ikegaya Kyushu University, Japan	**A Comparative Study of Biogas/Air Flames Characteristics for Different Bluff-Body Burner Configurations** Ahmed H. Elkholy, Eslam I. Mohamed, Ahmed A. Mahgoub, Ahmed M. Abdulnaim, Ahmed A. Adam Mohamed A. Elmously, Hany A. Moneib Helwan University, Egypt
10:53 11:01	**A Novel Capacitorless Low-Dropout Regular (LDO) Design for High-Performance System-on-Chip Applications Using 180nm CMOS Process** Christine Claire Baldo, Michelle Palen, Re-Ann Cristine O. Calimpusan, Jeffrey T. Dellosa Caraga State University, Philippines	**Advancements in the Synthetics and Applications of π -Conducting Poly(arylene vinylene)s Materials: Mini-Review** Mohamed E. Abdu, Mahmoud Z. Basyouni, Mohammed F. Radwan, Ahmed G. Taha, Peixin Xia, Andrew M. Spring Kyushu University, Japan	**Non-Premixed Cofiring of Two Fuel phases: Performance and Emissions Study for a New Air Staged Burner** Ahmed A. Adam , Ahmed M. Abdulnaim, Ahmed E. EL-Kholy, Mahmoud A. Shahein, Hany A. Moneib Kyushu University, Japan
11:01 11:09	**Review of GIS-based Approaches in Earthquake Disaster Management** Jomari Tan, Mary Joanne Aniñon De La Salle University, Philippines	**The Future of Successful Integration with Two-Dimensional Field-Effect Transistors: Materials, Opportunities, and Challenges** E. Y. Jung, H. Ago Kyushu University, Japan	**Effect of Rib Angle on Capillary Flow in Closed Hierarchical Microchannels** Gaurav Kumar, Gyoko Nagayama Kyushu Institute of Technology, Japan
11:09 11:17	**Index Crimes: A Web Geographic Information System Platform for Crime Mapping Frequency in Butuan City** Kieth M. Echevarre, Ronie Cris C. Gucela, John Rudmark L. Ebol, Arnaldo C. Gagula Caraga State University, Philippines	**Design and Analysis of Triple-Band SIW Antenna for K-Band and Ka-Band Applications** Md Mahabub Alam, Ahmad Afif Mohd Faudzi, Syamimi Mardiah Shaharum, Yasmin Abdul Wahab, Muhammad Hazarul Azmeer Ab Malek, Mohamad Shaiful Abdul Karim, Nurhafizah Abu Talip Yusof Universiti Malaysia Pahang Al-Sultan Abdullah, Malaysia	**Haemodynamics in Left Ventricular Remodelling using Cardiovascular Lumped-Parameter Model** Siti Munirah Muhammad Ali, Muhammad Fadhli Nadhil Nashron, Wan Naimah Wan Ab Naim, Mohd Jamil Mohamed Mokhtarudin, Wahbi El-Bouri Universiti Malaysia Pahang Al-Sultan Abdullah, Malaysia
11:17 11:25	**A Numerical Investigation of Power Extraction Using Biomimetic Hydrofoils for a Full Passive Oscillating Hydrokinetic Turbine** Ramon III Gregorio, Cylvia Mae Gonzaga, Jonathan Maglasang Ateneo de Davao University, Philippines	**Producing Magnesium Hydroxide Coating from Seawater to Prevent Hydrogen Sulfide-induced Corrosion in Concrete** Janelle Patricia S. Moa, Bea Angela C. Gaw, John Louis O. Co, Kyle Anderson C. Coo, Kenneth Jae T. Elevado, Cheryl Lyne C. Roxas De La Salle University, Philippines	**Design and Development of a Combined Cacao Bean Huller-Pulverizer Machine** May Rose B. Osoteo, John Cristian G. Badilla, Dominic Ivan Tulin, Art M. Dalman Caraga State University, Philippines
11:25 11:33	**Factorial Analysis on the Production of Biofertilizer with High Nitrogen Content Using Mushroom Waste** Amir Syarifudin Bin Baharudin, Norazwina Binti Zainol Universiti Malaysia Pahang Al-Sultan Abdullah, Malaysia	**Effect of Synthesis Method and Reaction Conditions on Ciprofloxacin Adsorption from Aqueous Solutions by MoS_2 Materials**	**Molecular Dynamics Study of Droplet Impinging/Freezing on Cold Surface** Shu Moromisato, Hsiu-Yang Tseng, Gyoko Nagayama Kyushu Institute of Technology, Japan

		Feng Xuening, Omar Falyouna, Toshihiko Mandai, Osama Eljamal Kyushu University, Japan	
11:33 11:41	**Microcontroller-Driven Temperature Control for Superior Coffee Roasting** Wongsatorn Chinachan, Rachata Tobias Baur, Paleerat Wongchampa, Lerson Kirasamuthranon, Keerati Kirasamutranon Keerapat international school, Thailand	**Bacterial Cellulose Production by Pure Culture of Acetobacter Xylinum in Sweet Black Tea Medium** Pannita Jaroenjaturong, Benjamas Cheirsilp, Uschara Thumarat, Piyarat Boonsawang Prince of Songkla University, Thailand	**Numerical Study on Hydrogen Mixing for Different Scramjet Engine Combustion Chamber Configurations** Elsayed Abdelhameed, Koki Okamoto, Yasumasa Watanabe, Toyota Technological Institute, Japan
11:41 11:49	**Assessing the Efficacy of Newly-Constructed Drainage Canals in Butuan City Proper, Philippines through Field Survey and Hydrologic Modelling Approach** Mark Louie T. Ajoc, Brian M. Seno, Arnaldo C. Gagula, Caraga State University, Philippines	**Assessment of Overheating Risk in School Classrooms at Hot-Humid Climate** Nor Sahidah Firman, Sheikh Ahmad Zaki, Ng Wai Tuck, Manoj Kumar Singh, Hom Bahadur Rijal Universiti Teknologi Malaysia, Malaysia	**Imbalanced Flood Forecast Dataset Resampling Using SMOTE-Tomek Link** Ainaa Hanis Zuhairi, Fitri Yakub, Mas Omar, Muhammad Sharifuddin, Khamarrul Azahari Razak, Amrul Faruq University Technology Malaysia, Indonesia
11:49 11:57	**Co-benefits Analysis of Solar Energy Plans in Austin, Texas** Katherine R. McCarroll, Alphonce Ngila Mulumba, Mohamed Saad Suliman, Hooman Farzaneh The University of Texas at Austin, United States	**The Effects of Flood-induced Lane Reduction on the Capacity of a Road Network** Lance Kenneth D. Mamuyac, Jon Robin D. Delos Reyes, Louisse Shaola L. Lumanglas, Eian Lanz C. Rebotiaco, Alexis M. Fillone De La Salle University – Manila, Philippines	**Morphometric Analysis of the Pahang River Basin and Its Sub Basin System at Pahang State, Peninsula Malaysia** Mohd Aliff Mohd Anuar, Mohd Shalahuddin Mohd Adnan, Mohamad Hafiz Hassan, Mohd Sofiyan Sulaiman, Nurul hidayah Ruslan Universiti Tun Hussein Onn Malaysia, Malaysia
11:57 13:00	Lunch Break		
Venue	**Keynote Session K3 (Chikushi Hall)**		
Session Chair	*Professor Bertrand Lin*		
Co-chair	*Ahmed Adam*		
13:00 13:30	Title: Leveraging the Advancement Science, Technology, and Innovation for Sustainable Development Speaker: Professor Emmanuel Mutisya		
13:30 14:00	Title: Sustainable Building Applications: Evaluating Thermal Characteristics of Concrete Blocks from Construction and Demolition Waste Speaker: Professor Hatem Mahmoud Fathy		
14:00 14:15	Coffee Break		

Session 5

Venue	C-Cube Chikushi Hall	G-Building, Room 206	G-Buiding, WEEL Room 310
Session Chair	*Ding Jianing*	*Mohammed Ali*	*Wu Binsheng*
Co-chair	*Chen Qilu*	*Alphonce Mulumba*	*Wu Qingyu*
14:15 14:23	**Performance Analysis of Reduced Switch Hybrid Cascaded Multilevel Inverter with PSO-based PI Controller during Load Variations** M.Izzat Nordin, Leong Ying Foo, M.H.A. Ab Malek, Suliana Ab Ghani, N.Huda Ramlan Universiti Malaysia Pahang Al-Sultan Abdullah, Malaysia	**Optimizing Building Envelope Features: Towards Climate Responsive Energy Efficient Buildings in Hot Climates** Nourhan M. Waly, Hamdy Hassan, Ryo Murata, David Sailor, Hatem Mahmoud Egypt-Japan University of Science and Technology E-JUST, Egypt	**Investigation of Coherent Structures in Turbulent Boundary Layer Above Urban Building Array Using Proper Orthogonal Decomposition** Haitham Osman, Naoki Ikegaya Kyushu University, Japan
14:23 14:31	**The Potential of ChatGPT in Assisting Healthcare Professionals with Personalized Time-Scheduled Care Plans: Opportunities and Challenges** Sherif Nesnawy, Mohamed F Radwan, Fatma Mostafa Mahrous Faculty of Nursing-Minia University, Egypt	**Parametric Behaviors of Sugar Palm (Arenga Pinnata Wumbb Merr.) Sap Crystallization Process** Richelle Mae D. Mendoza-Olpot Cavite State University, Philippines	**Land-cover Characterization and Water Quality Assessment of the Sambunotan Watershed, Dinagat Islands in Support of the Development of the Watershed Management Plan** Meriam Makinano-Santillan, Michelle V. Japitana, Arnaldo C. Gagula, Stephanie Mae S. Albores, Jahn Rey C. Bautista, Marjunelyn R. Llesis, Jojene R. Santillan Caraga State University, Philippines
14:31 14:39	**Spatio-Temporal Prediction of Leptospirosis in Kuantan Using Hydrometeorological Variables and Random Forest Machine Learning**	**Using Recycled Materials as an Approach to Energy-Efficient Building: A Residential Building in North Egypt as a Case Study**	**Enhancing Mechanical Properties of Lightweight Reaction Heat Press Natural-Fiber Polyethylene Composite**

	Veianthan Jayaramu, Zed Zulkafli, Fariq Rahmat Universiti Putra Malaysia, Malaysia	Hatem Mahmoud University of Science and Technology, Egypt	Muhamad Iqbal bin Mohd Kamal, Amalina binti Amir, Zakiah Ahmad, Sabu Thomas, Jomon Joy Universiti Teknologi MARA (UiTM), Malaysia
14:39 14:47	**Modeling of Sediment Export and Retention Capacity of Land covers in Taguibo Watershed, Butuan City using InVEST-SDR Model** Jaye Bee B. Lopena, Pearly Jane A. Libot, Aljon E. Bocobo Caraga State University, Philippines	**Promoting the Allowable Stress Method for the Design of Glass Members and Frameless Structures** Saddam Hussain, Pei Shan Chen, Chiara Bedon, Hassan Javed, Kyushu Institute of Technology, Japan	**Retrofitting Electric Power Steering to Allow Steer-by-Wire Steering in Electric Buggies** Ahmad Akmal Abd Manan, Amalina Amir, Amir Radzi Abdul Ghani, Nor Afifah Yahaya, Muhammad Aiman Syafiq Abdul Rahman University Teknologi MARA (UiTM), Malaysia
14:47 14:55	**Combined Hydrological and Geologic Assessment for Sustainable Management of the Sambunotan Watershed, Dinagat Islands, Philippines** Meriam Makinano - Santillan, Arnaldo C. Gagula, Stephanie Mae Salcedo – Albores, Jun Love E. Gesta, Nichole Anthony Pacle, Riva Karyl P. Varela, Jojene R. Santillan Caraga Center for Geo-Informatics, Philippines	**Investigating the Mechanical Performance of Concrete by Incorporating Poultry Slaughterhouse Wastewater Treatment Plant Sludge as a Partial Cement Replacement** Nichole Vince S. Jalipa, Ryanne Spencer Y. Lim, Rafael Conrado F. Matias, Nathalie Belle F. Villademosa, Daniel Nichol R. Valerio, Maria Klarissa M. Daly, Kenneth Jae T. Elevado De La Salle University, Philippines	**Estimation of Runoff Retention Capacity of Agricultural Areas in San Francisco, Agusan del Sur, Caraga, Philippines** Sajonia, Anamarie P., Cellan, Johnry S. Luceñara, Danese Crystel P. Caraga State University, Philippines
14:55 15:03	**Promoting Accountability in Green Technology and Sustainability: Insights from Perpustakaan Tun Abdul Razak (PTAR), Universiti Teknologi MARA in Community Welfare through Islamic Principles** Saidatul Akmar Ismail, Zalifah Awang Zakaria, Azizi Jantan Universiti Teknologi MARA, Malaysia	**Recent Progress in Fabrication of Eco-membranes for Membrane Distillation: A Mini-Review** Mostafa M. Sayed, Hamouda M. Mousa, Ahmed H. El-Shazly, Abdelrahman Zkria, Tsuyoshi Yoshitak and Marwa ElKady Egypt-Japan University of Science and Technology, Egypt	**Evaluation of Handling and Storage Characteristics of an Intermediate Granulated Food Ingredient Using a Fabricated Screw Extruder** Lynnel C. Olpot, Jewel A. Capunitan Philippine Council for Industry, Energy and Emerging Technology Research and Development, Philippines
15:03 15:11	**Classification of Spine Abnormalities Using Deep Learning** Muhammad Shahrul Zaim bin Ahmad, Nor Azlina Ab. Aziz, Lim Heng Siong Multimedia University, Malaysia	**A Concise Review of Nanocomposites' Function in Organic Reactions to Synthesize Various Organic Nuclei** Doaa A. Elsayed, A Abd-ElSattar, Mohamed E.Abdu, Wesam S. Shehab Zagazig University, Egypt	**Investigation of Rainwater Harvesting Quality with the Application of the First Flush System** Nur Atiqah Syarifah, Salahuddin Adnan, Muhammad Firdaus, Muhammad Amin Aszlimin, Imroni Arif University Tun Hussein Onn Malaysia, Malaysia
15:11 15:19	**Land Cover Mapping Using Automated Machine Learning with Landsat Data** Jojene R. Santillan, Meriam Makinano-Santillan Leibniz University Hannover, Germany	**Feasibility Study of Dam Development: Sustainable Flood Mitigation Strategies** Rahmah Dara Lufira, Suwanto Marsudi, Ussy Andawayanti, Evi Nur Cahya, Naila Zahro, Arbi Surya Brawijaya University, Indonesia	**Study On the Design and Materials for a Temporary Flood Barrier as A Flood Control Initiative in Mitigating Residential Areas** Muhamad Firdaus Zanorin, Mohd Shalahuddin Adnan, Muhammad Amin Adzlimin Amran, Malaysia
15:19 15:27	**River Monitoring System for Headwater Phenomena Using Long Range (LoRa) Communication (BUOY ONE)** Ahmad Aiman Bin, Abd Muttalib, Herdawatie Abdul Kadir, Mohd Adib, Mohammad Razi, Khalid Isa, Radzi Ambar Univeristi Tun Hussein Onn Malaysia, Malaysia	**Eco-Innovative Waste-Derived Carbonaceous Nanocomposites: A Mini Review for Water Treatment** Mohd Faizul Idham, Omar Falyouna, Ahmad Rozaimee Mustaffa, Ibrahim Maamoun, Osama Eljamal Universiti Teknologi MARA, Malaysia	**A Preliminary Evaluation on the Development of Sandwich Panels for House Walls Using Basic Materials of Coconut Fiber as the Outer Skin Layer and Multiplex as the Core** Rilya Rumbayan, Imran Musanif, MY Noorwahyu Budhyowati, Febriane Paulina Makalew, Beldy Tombeg Manado State Polytechnic, Indonesian
15:27 15:35	**Green Coffee Bean Quality Inspection Using Computer Vision Systems** Jameel John M. Reales, Ronieto N. Mendoza, Von Romer D. Labas Caraga State University, Philippines	**Comparative Analysis of Commercial and Synthesized Molybdenum Disulfide for Progesterone Removal in Water Treatment** Sam Bessai, Omar Falyouna, Toshihiko Mandai, UPM Ashik, Osama Eljamal Kyushu University, Japan	**Investigation of Flood Inundation under Climate Change and Landuse Change for the Small Urban Catchment** Mohd Shalahuddin Adnan, Mazni Sharif, Mohd Noh Sabar, Rubiatun Adawiah Ali, Muhammad Nda, Agung W. Biantoro, Mohd Aliff Anuar Universiti Tun Hussein Onn Malaysia, Malaysia

15:35 15:43	**Performance Evaluation of Transformer and Informer Based Models for Indoor Absolute Humidity Prediction Using Outdoor Absolute Humidity** Muhamad Sharifuddin Abd Rahim, Fitri Yakub, Sheikh Ahmad Zaki Shaikh Salim, Inge Dhamanti, Muljono, G. Niranjana Universiti Teknologi Malaysia, Malaysia	**Numerical Investigation of the Properties of Japanese Historical Brick Masonry Structures** Chhabi Mishra, Kentaro Yamaguchi, Kyushu University, Japan	**The Effect of Aging nZVI on Removal of Nitrate** Masahiro Shiotsuki, Osama Eljamal, Kyushu University, Japan
15:43 15:55	Coffee Break		

Session 6

Venue	C-Cube Chikushi Hall	G-Building, Room 206	G-Buiding, WEEL Room 310
Session Chair *Co-chair*	*Yang Shenghao* *Feng Xuening*	*Ekrima Astari* *Mohammed Abdu*	*He Xiaoran* *Xie Yu*
15:55 16:03	**Methodological Framework for Density Estimation: Insights from Muography Laboratory Measurements and Simulations Experiments** Ahmed Eleslambouly, Hamid Basiri, Mohammed Ali, Jun Matsushima, Masashi Kodama, Toshiyuki Yokota, Fateh Bouchalaa Khalifa University of Science and Technology, Japan	**Effect of Some Experimental Conditions of the Pulsed Plasma in Liquid on the Formation of Nanostructures** Adilet Zakypbekov, Wei Xu, Takuro Niidome, Alimzhan Kalbekov Emil Omurzak Kyrgyz-Turkish Manas University, Kyrgyz Republic	**Unlocking the Potential of Poly(norbornene-dicarboximides): Synthesis, Applications, and Future Prospects** Mohammed F. Radwan, Mahmoud Z. Basyouni, Mohamed E. Abdu, Ahmed G. Taha, Peixin Xia, Andrew M. Spring Kyushu University, Japan
16:03 16:11	**Further Investigation of the Power Generation and Pollution Removal Capacity of Microbial Fuel Cells for the Treatment of High Nickel Content Wastewater** Qilu Chen, Osama Eljamal, Elizabeth Heidrich, Sam Bessai, Binsheng Wu Kyushu University Japan	**Influence of Cobalt Doping on the Thermoelectric Properties of the Magnéli Phase $W_{18}O_{49}$** Mostafa M. Elkady, Michitaka Ohtaki, Koichiro Suekuni Kyushu University, Japan	**Enhancing Thermal Comfort for Motor Biker via PV and Peltier Module Mounted Helmet** Anamul Haque Arif, Md. Imtiaz Hyder, Adwayatananda Das, Bidyut Baran Saha, Sampad Ghosh Chittagong University of Engineering & Technology (CUET), Bangladesh
16:11 16:19	**The Intense Geomagnetic Storm on March 24, 2023, Associated with Halo CMEs and Solar Flares** S. N. A. Syed Zafar, R. Umar, N. H. Sabri, M. H. Jusoh, A. Yoshikawa, S. Abe, T. Uozumi Universiti Sultan Zainal Abidin, Malaysia	**Isolation and Identification of Lactic Acid Bacteria from Naturally Fermented Goat Milk as Potential Goat Milk Yogurt Starter** Asma Billateh, Benjamas Cheirsilp Prince of Songkla University, Thailand.	**Field Measurement on Skin Temperature and Thermal Comfort of the Human Body with Various Airspeed Directions** Fakhrizal Akbar Ilmiawan, Sheikh Ahmad Zaki, Manoj Kumar Singh, Hom Bahadur Rijal Universiti Teknologi Malaysia, Malaysia
16:19 16:27	**Automated Monitoring System for Detection of Solar Radio Bursts for CALLISTO Spectrums** Nor Hazmin Sabri, Nur Zulaikha Mohd Afandi, Roslan Umar, Suhailan Safei, Christian Monstein Universiti Malaysia Terengganu, Malaysia	**Enhancing the Thermoelectric Performance of Bulk Zinc Oxide via Single and Multiple Doping Strategies** Ibrahim A. Atito, Michitaka Ohtaki Kyushu University, Japan	**An Experimental Study on the Low-Velocity Impact Response of Jute/Epoxy Bio-composites** Shapla Dewanjee, M A Shadab Siddiqui, M S Rabbi Chittagong University of Engineering & Technology, Bangladesh
16:27 16:35	**The Use of Geospatial Techniques to Estimate Rice Production as a Measure for Waste Analysis: A Review** Lorie Cris S. Asube, Roland E. Otadoy, Caraga State University, Philippines	**pH Dependent Hexavalent Chromium Adsorption Experiments by Biochar Derived by Rice Husk** Binsheng Wu, Qilu Chen, Osama Eljamal Kyushu University, Japan	**The Implementation of Hybrid Observation Technique of Hilal (HOTOH)** A. L. A. M. Nasir, R. Umar, W. N. J. W. Yussof, N. Ahmad, A. N. Zulkeflee, N. H. Sabri, A. H. Kamarulzaman, N. A. Mahiddin Universiti Sultan Zainal Abidin (UniSZA), Malaysia
16:35 16:43	**Multi-method Geophysical Observations in Governing Sustainable Development of a Volcano-Hosted Geothermal Area in Cangar, Indonesia** Sukir Maryanto, Masdukhan A. Widyaminudiin, Daeng A. Suaidi,	**Assessing the Effects of Coffee Husk Ash (CHA) and Eggshell Powder (ESP) as Partial Replacements for Cement and Spent Coffee Grounds (SCG) as Partial Replacement for Sand on the Compressive Strength of Concrete**	**Investigating the Impact of Lithology and Lineament Structures to the Drainage Morphometry of Carrascal Watershed, Surigao Del Sur, Mindanao, Philippines Using Correlation and Principal Component Analysis**

	Cholisina A. Perwita, Sri D. Wuryani, Shuji Abe, Akimasa Yoshikawa, Emad M.H. Takla, Kirolosse M. Grigis, Rendi P. Habsari, Vanisa Syahra, Brawijaya University, Indonesia	Katrina O. Mercado, Joshua Ivan C. Cabiltes, Carl Francis M. Manese, Denise Shaynn C. Ramos, Bernard A. Lejano De La Salle University – Manila, Philippines	Kernel P. Arreza, Jenner E. Tidoy, Stephanie Mae Salcedo – Albores, Patrick Sam M. Buenavista, Nichole Anthony Pacle Caraga State University, Philippines
16:43 16:51	**Nanopixel Waveguide Polarization Rotator Towards Integrated CRDS Breath Sensor for Self-Lasing Suspension** Sara Bruhier, Haisong Jiang, Kiichi Hamamoto Kyushu University, Japan	**Unveiling the Thermal Comfort Dynamics of Asymmetrical Buildings Configurations in Malaysia's Public School Courtyard Design** Muhammad Arif Harun, Sheikh Ahmad Zaki, Ng Wai Tuck, Samsol Faizal Anis, Elmira Jamei, Hom Bahadur Rijal Universiti Teknologi Malaysia, Malaysia	**Design, Fabrication, and Performance Evaluation of a Small-Scale Integrated Saba Banana Flour Mill** Joan Jane J. Sanchez, Rachel Dawn L. Acero, Vynce Gale F. Jabian Caraga State University, Philippines
16:51 16:59	**Economic Contributions and Green Job Implications of Japan's Energy Transition: An Integrated Assessment of Decarbonization Scenarios in Kyushu Region** Alphonce Ngila Mulumba, Farzaneh Hooman Kyushu University, Japan	**Assessing CO, NO_2, and SO_2 Levels and Urban Heat Island Dynamics in the Caraga Region Through Remote Sensing** Jun Love E. Gesta, Kim Lyra D. Mateo, Nathaniel G. Radaza, Caraga State University, Philippines	**Experimental Investigation of a Small-scale Hybrid Wind-Solar Renewable Energy Systems** Baizura Bohari, Raja Ejjy Raja Akhmar, MR Saad, Universiti Pertahanan Nasional Malaysia, Malaysia
16:59 17:07	**Sub-catchment Prioritization in a Tropical Watershed for Stream Health Improvement and Low Impact Development Application Using Multi Criteria Decision Analysis: A Case in Palo, Leyte, Philippines** Sergi Garbanzos, Gessel Mae Abordo, Arvel Art Alde, Janecee Gavan, Jaren Kirby Larraga, Alyssandra Janine Baylon, Kent San Pedro, Jayson Cayetano, Marla Maniquiz-Redillas De La Salle University, Philippines	**Characterization of Pyrolytic Oil from Different Blending Ratio of HDPE and PET Plastic Waste Through Gasification Pyrolysis Process** Safwan Hafizi Masakhoh, Zakiuddin Januri, Norazah Abd. Rahman Institut Kemahiran MARA Bintulu, Malaysia	**A Development of Dielectric Composite Substrate Based on Barium Titanate-Epoxy Resin for a 5 GHz Microstrip Antenna** Nur Sofia Idayu Didik Aprianto, Nurul Izzah Izzaty Mohd Nadzri, Nurfarhana Mustafa, Muhammad Hazarul Azmeer Ab Malek, Ahmad Afif Mohd Faudzi, and Mohamad Shaiful Abdul Karim, Universiti Malaysia Pahang Al-Sultan Abdullah, Malaysia
17:07 17:15	**A Study of the Modified Microscopic Model Incorporating Weather Effect and Cooperative Behavior** Md. Zakir Hosen, Md. Anowar Hossain, Jun Tanimoto Kyushu University, Japan	**Coconut Coir Fiber and Coconut Shell as Substitute to Fine Aggregates in Concrete Mortar Cubes** Maria Emilia P. Sevilla, Miller DL. Cutora, Julia Aliana Mari S. Cortez, Dominic Ross D. David, Nicole Ashley D. Santos De La Salle University, Philippines	**Unmanned Aerial Vehicle (UAV) Images for Coastal Erosion Monitoring** M R M Adib, M.A. Zaidi, I B Isha, E H H Al-Qadami, S M H Shah Universiti Tun Hussein Onn Malaysia, Malaysia
17:15 17:40	Closing Remarks & Best Presentation certificates		