

[010]Proceedings and Program : International Exchange and Innovation Conference on Engineering & Science : IEICES 2024

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バージョン :

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Conference Program

❖ The conference program time follows Japan Standard Time (JST)

| First Day | | Oct.17 th (Thursday) | | |
|----------------------|-----------------------|--|--|---|
| 09:30 | 10:00 | Registration (Lobby, C-Cube Building) | | |
| 10:00 | 10:10 | <i>Welcome Speech:</i> 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 | | |
| <i>Venue</i> | | Keynote Session K1 (Chikushi Hall) | | |
| <i>Session Chair</i> | <i>Sam Bessai</i> | | | |
| <i>Co-chair</i> | <i>Feng Xuening</i> | | | |
| 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 | | | | |
| <i>Venue</i> | C-Cube Chikushi Hall | G-Building, Room 206 | | |
| <i>Session Chair</i> | <i>Ibrahim Atito</i> | <i>Sara Bruhier</i> | | |
| <i>Co-chair</i> | <i>Jung Eui Young</i> | <i>Mohammed Lamien</i> <i>Dina Elsalamony</i> | | |
| 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 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 (<i>Abelmoschus esculentus</i>) 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 |

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| 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 (<i>Citrus Maxima</i> var. <i>Magallanes</i>) Peel Extract on the Postharvest Quality and Shelf Life of Bitter Gourd (<i>Momordica Charantia</i> L. var. <i>Galaxy Max F1</i>) under Ambient Condition Presneil S. Maglasang, Glydsdi 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 (<i>Carica papaya</i> 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 Ditnин, Patamaporn Sripadungtham, Nitikorn Nanthawirojsiri King Mongkut's University of Technology Thonburi (Kmutt), Thailand |
| 14:22 | 14:30 | Differential Diffusion Effect in H₂/NH₃ Non-Premixed Flames and Flamelet-Based Models Ahmed Adam, Reo Kai, Hiroaki Watanabe Kyushu University, Japan | Development of a Cacao (<i>Theobroma cacao</i> L.) Bean Huller Reca S. Bautista, Arnold G. Apdohan, Rossana Marie C. Amongoi 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 (<i>Cocos nucifera</i> 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 (<i>Oryza sativa</i>) Jane M. Tecson, Roger C. Montepio Agusan del Sur State College of Agriculture and Technology, Philippines |

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| 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 | | | | |
| <i>Venue</i> | C-Cube Chikushi Hall | G-Building, Room 206 | G-Buiding, WEEL Room 310 | |
| <i>Session Chair</i> | <i>Wu Bingsheng</i> | <i>Mohammed Abdu</i> | <i>Alphonse Mulumba</i> | |
| <i>Co-chair</i> | <i>Jin Haoyu</i> | <i>Md. Zakir Hosen</i> | <i>Okendo Otieno</i> | |
| 15:00 | 15:08 | IoT-Based Climate Control System for Cultivation of Oyster Mushroom (<i>Pleurotus ostreatus</i>) Fruiting Bag Chris Jasmine T. Niog, Ronieto N. Mendoza, Lovely Mae Dagsa, Jake C. Martinez Caraga State University, Phillipines | 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 Fazilatulhuda 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 | 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 | 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 | 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 | 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 | 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, 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 | 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, Ydrion Paul C. Amarga Caraga State University, Philippines | Development of Biofilter Using a Biochar from Pericarp of Durian, Mangosteen, and Banana in Reducing Nickel Concentration in Wastewater Floramae A. Cerro, Dhavie 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 | Mapping Suitable Solar Farm Sites in Suez Governorate via Remote Sensing and GIS Techniques Mohammed Hussien Yadem Lamien, Hooman Farzaneh Kyushu University, Japan | 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. | Study on Combustion Performances and Droplet Combustion Characteristics of Palm Oil Biodiesel Blends Fuel Norwazan Abdul Rahim, Ameer Suhel, Muhammad Zuhair Habibudin, |

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| | | Mendoza Caraga State University, Philippines | Muhammad Danial Muhammad Afiq Wong, Jason Te Juin National Defence University of Malaysia, Malaysia | |
| 15:48 | 15:56 | 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 | Evaluating the Potential of Maize (<i>Zea Mays</i>) 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 (<i>Ipomoea batatas L.</i>) 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 | 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 | 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 | Renewable Energy Resource Assessment for Agusan Del Norte, Caraga Region, Philippines Cindy May C. Belivestre, Harold Panganoron Caraga State University, Philippines | Evaluation of Guso (<i>Kappaphycus alvarezii</i>) Seaweeds as Edible Coating to Eggplant (<i>Solanum melongena var. Calixto</i>) 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 | 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. Gestas Department of Geodetic Engineering, Philippines | Application of Aloe Vera Gel Edible Coating Combined with Rosehip Oil for Postharvest Quality of Sweet Pepper (<i>Capsicum annum L. var. Emperor</i>) 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, Shahruh Hisyam Marwan Universiti Teknologi MARA (UiTM), Malaysia |
| 16:20 | 16:28 | 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 | 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 Dahlia Institute of Technology and Business, Indonesian | 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, Sicensio D. Abera, Jr., Erwin D. Mendoza Caraga State University, Philippines |
| 16:28 | 16:36 | | 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 (<i>Xanthostemon Verdugonianus</i>) 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-Building, WEEL Room 310 |
| Session Chair Co-chair | Jung Eui Young Ibrahim Atito | Pan Su Wu Binsheng | Tong Tingzhou Sara Bruhier |



The 10th International Exchange and Innovation Conference on Engineering & Sciences
Kyushu University, Fukuoka, Japan
October 17-18, 2024

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| 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 (<i>Musa textilis</i>) 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., Prendon 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 | 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 | 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 | Dynamic Coupling Studies of Cooperative Behavior and Synchronization on Complex Networks | Essential Oils in Starch-Based Edible Coatings for Fruit Storage Applications: A Mini Review | A Comparative Study of Flame Structure, Heat Transfer, and Exhaust Emissions of a Coaxial Burner Fitted |

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| | Haoyu Jin, Jun Tanimoto Kyushu University, Japan | Laras Putri Wigati, Fumina Tanaka, Fumihiko Tanaka Kyushu University, Japan | 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 | 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. Asube Caraga State University, Philippines | Scaling Up Chitin Extraction from Shrimp Shell Using Symbiotic Co-Lactic Acid Fermentation and Proteolytic Fungal Fermentation in Stirred Tank Bioreactor Jariya Ruangwicha, Benjamas Cheirsilp, Wasana Suyotha Prince of Songkla University, Thailand | 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 | 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. |
| 18:02 18:10 | 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 |
| 18:10 18:18 | | | |
| 18:18 18:20 | Closing Remarks | | |

Conference Program

❖ The conference program time follows Japan Standard Time (JST)

| Second Day | | Oct.18 th (Friday) |
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| Venue | Keynote Session K2 (Chikushi Hall) | |
| Session Chair <i>Sam Bessai</i> Co-chair <i>Xie Yu</i> | 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 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 <i>Okendo Otieno</i> Co-chair <i>Mohammed Lamien</i> | Jin Haoyu Pan Su | Md. Zakir Hosen 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. Delloso 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-Kholly, 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 Fadhl 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 | 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 |



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| | | C. Roxas De La Salle 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 MoS₂ Materials 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 |
| 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 |
| 11:49 | 11:57 | Co-benefits Analysis of Solar Energy Plans in Austin, Texas Katherine R. McCarroll, Alphonse 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, Louise 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

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

Session 5

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| <i>Venue</i> | C-Cube Chikushi Hall | G-Building, Room 206 | G-Buiding, WEEL Room 310 |
| <i>Session Chair</i> | <i>Ding Jianing</i> | <i>Mohammed Ali</i> | <i>Wu Binsheng</i> |
| <i>Co-chair</i> | <i>Chen Qilu</i> | <i>Alphonse Mulumba</i> | <i>Wu Qingyu</i> |
| 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 | Parametric Behaviors of Sugar Palm (<i>Arenga Pinnata Wumbb Merr.</i>) Sap Crystallization Process | Land-cover Characterization and Water Quality Assessment of the Sambunotan Watershed, Dinagat Islands in Support |

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| | Sherif Nesnawy, Mohamed F Radwan, Fatma Mostafa Mahrous Faculty of Nursing-Minia University, Egypt | Richelle Mae D. Mendoza-Olpot Cavite State University, Philippines | 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 Veianthan Jayaramu, Zed Zulkafli, Fariq Rahmat Universiti Putra Malaysia, Malaysia | Using Recycled Materials as an Approach to Energy-Efficient Building: A Residential Building in North Egypt as a Case Study Hatem Mahmoud University of Science and Technology, Egypt | 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 Syaqiq Abdul Rahman University 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 | 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 |
| 14:47 | 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. Gestas, 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. Villademos, Daniel Nichol R. Valerio, Maria Klarissa M. Daly, Kenneth Jae T. Elevado De La Salle University, Philippines | 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 |
| 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 | 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 |
| 15:03 | 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 | 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 |
| 15:11 | 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 | 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 |

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| 15:19 | 15:27 | River Monitoring System for Headwater Phenomena Using Long Range (LoRa) Communication (BUOY ONE) Ahmad Aiman Bin, Abd Muttalib, Herdawati 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 | 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 |
| 15:27 | 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 | The Effect of Aging nZVI on Removal of Nitrate Masahiro Shiotsuki, Osama Eljamal, Kyushu University, Japan |

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| 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 | |
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15:43 15:55

Coffee Break

Session 6

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| <i>Venue</i> | C-Cube Chikushi Hall | G-Building, Room 206 | G-Buiding, WEEL Room 310 |
| <i>Session Chair</i> | Yang Shenghao | Ekrima Astari | He Xiaoran |
| <i>Co-chair</i> | Feng Xuening | Mohammed Abdu | Xie Yu |
| 15:55 | 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 Bouchala 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 | 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 | 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 |

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| 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 | 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 |
| 16:27 | 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 | 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 Kernel P. Arreza, Jenner E. Tidoy, Stephanie Mae Salcedo – Albores, Patrick Sam M. Buenavista, Nichole Anthony Pacle Caraga State University, Philippines |
| 16:35 | 16:43 | Multi-method Geophysical Observations in Governing Sustainable Development of a Volcano-Hosted Geothermal Area in Cangar, Indonesia Sukir Maryanto, Masdukhann A. Widyaminudiin, Daeng A. Suaidi, 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 | 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 Katrina O. Mercado, Joshua Ivan C. Cabiltes, Carl Francis M. Manese, Denise Shaynn C. Ramos, Bernard A. Lejano De La Salle University – Manila, Philippines | 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 |
| 16:43 | 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 | Experimental Investigation of a Small-scale Hybrid Wind-Solar Renewable Energy Systems Baizura Bohari, Raja Ejy Raja Akhmar, MR Saad, Universiti Pertahanan Nasional Malaysia, Malaysia |
| 16:51 | 16:59 | Economic Contributions and Green Job Implications of Japan's Energy Transition: An Integrated Assessment of Decarbonization Scenarios in Kyushu Region Alphonse Ngila Mulumba, Farzaneh Hooman Kyushu University, Japan | Assessing CO, NO₂, and SO₂ 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 | 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 |
| 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 | 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 | 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 |

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| | Baylon, Kent San Pedro, Jayson Cayetano, Marla Maniquiz-Redillas De La Salle University, Philippines | | |
| 17:07 | 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 | |
| 17:15 | 17:45 | Closing Remarks | |