

6th International Exchange and Innovation Conference on Engineering & Sciences (IEICES)



Conference Program

October 22 & 23, 2020

❖ Join the conference through Zoom meeting by clicking on the following link

<https://zoom.us/j/98243141099>



❖ *The conference program time follows **Japan time zone***

Oct. 22nd (Thursday)

10:00 – 10:05	Welcome Speech: Assoc. Prof. Osama Eljamal IEICES 2020 Chair <i>Interdisciplinary Graduate School of Engineering Sciences, Kyushu University</i>
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Session 1

Session Chair	Relebohile Mokete
Co-chair	Bipasha Singha

10:05 – 10:35	Keynote Speech: Advances in Nanofluids as Advanced Coolants for Proton Exchange Membrane (PEM) Fuel Cells. <i>Assoc. Prof. Wan Ahmad Najmi bin Wan Mohamed, Mechanical Engineering, Universiti Teknologi MARA (UiTM), Malaysia</i>
10:35 – 10:50	Conductivity of gadolinium (III) oxide (Gd₂O₃) in hydrogen-containing atmospheres. <i>M. Khalid Hossain, Kyushu University, Japan.</i>
10:50 – 11:05	Surface relaxation of W(110) and 2D growth of B studied by Low Energy Electron Diffraction and Auger Electron Spectroscopy. <i>Shahadat Hossain, Kyushu University, Japan.</i>
11:05 – 11:20	Simulation-based Optimum Models for Type-I(a) and Type-I(b) IUPAC Classified Adsorption Isotherms. <i>Md. Matiar Rahman, Kyushu University, Japan.</i>
11:20 – 11:35	Thermal Conductivity Enhancement of Metal-organic Frameworks Employing Mixed Valence Metal Doping Technique. <i>Israt Jahan, Kyushu University, Japan.</i>
11:35 – 11:50	Electrical Power Estimation of Thermoelectric Cement Composites with Inclusion of Nanostructured Materials. <i>Sampad Ghosh, Kyushu University, Japan.</i>

11:50 – 13:20 **Lunch Break**

Session 2

Session Chair	Khaoula Bensaïda
Co-chair	Ramadan Eljamal

13:20 – 13:35	Dissolution and Release Behavior of Hydrogen Isotopes from Barium-Zirconates. <i>M. Khalid Hossain, Kyushu University, Japan.</i>
13:35 – 13:50	Wideband Circularly Polarized Metamaterial-based Antenna employing Metasurface Structure. <i>Samia Tabassum, Chittagong University of Engineering & Technology (CUET), Bangladesh.</i>
13:50 – 14:05	Bandwidth and Gain Improvement of a Circularly Polarized Metamaterial-Based Antenna Employing Square Ring-Shaped Defected Ground Structure.

	<i>Anaynna Shil, Chittagong University of Engineering & Technology (CUET), Bangladesh.</i>
14:05 – 14:20	Effect of Nanoparticle Concentration on the Specific Heat Capacity and Thermal Stability of Graphite Nanoparticle-Based Molten Salt. <i>Nusrat Jahan Salim, Bangladesh University of Engineering and Technology, Bangladesh.</i>
14:20 – 14:35	A High Gain Dual Band Microstrip Patch Antenna Design Implementing Rectangular Slotted Electromagnetic Band Gap Structure. <i>Urmi Das, Chittagong University of Engineering & Technology (CUET), Bangladesh.</i>
14:35 – 14:50	Monte Carlo Simulation and Experimental Determination of Tissue Phantom Ratio for Megavoltage Photon Beam. <i>Noor Mohammed Rasel, Comilla University, Bangladesh.</i>
14:50 – 15:05	Applications of different turbulence models in CFD Simulations of Mixed Flow Hydraulic Pump. <i>Muhammad Tahir Jamil, College of Agriculture Science and Engineering, Hohai University, China.</i>

Session 3

Session Chair	Ibrahim Maamoun
Co-chair	Omar Falyounaa
15:05 – 15:35	Keynote Speech: Investigating energy-efficient air-conditioning options for agricultural and livestock applications <i>Asst. Prof. Muhammad Sultan, Laboratory for Energy and Env. Engineering Research Department of Agricultural Engineering Bahauddin Zakariya University, Pakistan</i>
15:35 – 15:50	Investigating applicability of heat-driven desiccant dehumidification system for shelf life improvement of fruits and vegetables. <i>Muhammad Bilal, Bahauddin Zakariya University, Pakistan.</i>
15:50 – 16:05	Lab-scale study of desiccant dehumidification system for poultry shed air-conditioning in Pakistan. <i>Muhammad Aleem, Bahauddin Zakariya University, Pakistan.</i>
16:05 – 16:20	Study on desiccant dehumidification system using experiments and steady-state model. <i>Muhammad Ishaq, Bahauddin Zakariya University, Pakistan.</i>
16:20 – 16:35	Evaporative cooling systems for thermal comfort of foreign cattle breeds: THI evaluation and system feasibility. <i>Hafiz Sifat Ullah, Bahauddin Zakariya University, Pakistan.</i>
16:35 – 16:50	Study on zero energy evaporative cooling chamber for agricultural products storage. <i>Muhammad Khali, Bahauddin Zakariya University, Pakistan.</i>
16:50 – 17:05	Investigation of direct and indirect evaporative cooling options for greenhouse air conditioning in Multan (Pakistan). <i>Hadeed Ashraf, Bahauddin Zakariya University, Pakistan.</i>

17:05 – 17:20	Study on an evaporative cooling vest for farm workers. <i>Aarish Maqsood, Bahauddin Zakariya University, Pakistan.</i>
17:20 – 17:35	Study on solid desiccant-based air-conditioning for wet-markets. <i>Muhammad Nauman Ashraf, Bahauddin Zakariya University, Pakistan.</i>
17:35 – 17:50	Spatiotemporal investigation of atmospheric water harvesting potential using response surface methodology for Multan (Pakistan) and Fukuoka (Japan). <i>Muhammad Bilal, Bahauddin Zakariya University, Pakistan.</i>
17:50 – 18:05	Environmental Footprint Reduction of the Built-up Area in Metropolitan Regions by the Smart development Plan: Lessons for Egypt. <i>Taher Osman, Cairo University, Egypt.</i>
18:05 – 18:20	Cancelability Preservation of Multi Biometrics Based on Quaternion Transform. <i>Mohamed Essam, Future University in Egypt, Egypt.</i>
18:20 – 18:35	Does Urban Concentration Mitigate the Negative Impacts of Electric Energy Consumption on Climate Change? Evidence from Egypt. <i>Taher Osman, Cairo University, Egypt.</i>
18:35 – 18:45	Closing Remark

Oct. 23rd (Friday)

Session 1

Session Chair **Shahadat Hossain**
Co-chair **Omar Falyouna**

- 09:00 – 09:15 **Analysis of the Performance of Microbial Fuel Cell as a Potential Energy Storage Device.**
Al-Mustasin Abir Hossain, Washington State University, USA.
- 09:15 – 09:30 **Enhancement of power generation in microbial fuel cells (MFCs) using iron/copper nanoparticles.**
Khaoula Bensaida, Kyushu University, Japan.
- 09:30 – 09:45 **Innovative Biotechnological Applications of Galdieria Sulphuraria-Red Microalgae (GS-RMA) in Water Treatment Systems.**
Ibrahim Maamoun, Kyushu University, Japan.
- 09:45 – 10:00 **A review on Water Conservation and Consumption Behavior: Leading issues, promoting actions, and managing the policies.**
Bipasha Singha, Kyushu University, Japan.
- 10:00 – 10:15 **Removal of ciprofloxacin from aqueous solutions by nanoscale zerovalent iron-based materials: a mini review.**
Omar Falyouna, Kyushu University, Japan.
- 10:15 – 10:30 **The involvement of nanoscale zerovalent iron (NZVI) in anaerobic digestion of sludge.**
Relebohile Mokete, Kyushu University, Japan.
- 10:30 – 10:45 **Comparative Study of Bare and Emulsified Nanoscale Zero-valent Iron for Nitrate and Phosphorus Removal.**
Ramadan Eljamal, Kyushu University, Japan.
- 10:45 – 11:00 **The effect of technological innovation on environmental quality: accounting ecological footprint indicators for Asian countries.**
Shahadat Hosan, Kyushu University, Japan.
- 11:00 – 11:15 **The Impact of Biomass Energy Consumption on Human Development: Evidence from Asian Countries.**
Shamal Chandra Karmaker, Kyushu University, Japan.
- 11:15 – 11:30 **Numerical analysis on turbulence and air-water scalar transport in open-channel flow influenced by thermal stratification and surface shear stress.**
Kim SungJin, Kyushu University, Japan.
- 11:30 – 11:45 **Detection of Slums from Very High-Resolution Satellite Images Using Machine Learning Algorithms: A Case Study of Fustat Area in Cairo, Egypt.**
Muhammad Salem, Kyushu University, Japan.
- 11:45 – 12:00 **Identification of Seulimeum Fault Zone for Sigli - Aceh Toll Road Plan Using 2d Resistivity in Aceh Besar District, Aceh Province – Indonesia.**
Aswadi, PT Mentari Pambuang International, Indonesia.
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12:00 – 13:30

Lunch Break

Session 2

Session Chair **Bipasha Singha**
Co-chair **Relebohile Mokete**

13:30 – 13:45 **Effects of Moisture Content on Soil Strength around Kampung Lohan, Ranau, Sabah.**

Karthigeyan AL. Ramanathan, Universiti Teknologi Malaysia, Malaysia.

13:45 – 14:00 **A Review on Tensile Behavior of Different Kinds of Fiber Reinforced Concrete.**

Rohit Chakraborty, Ahsanullah University of Science and Technology, Bangladesh.

14:00 – 14:15 **Re-Evaluation of Pambuang Basin as The Potential Hydrocarbon Basin in Western Shield of Kalimantan – Indonesia.**

Aswadi, PT Mentari Pambuang International, Indonesia.

14:15 – 14:30 **Throat to Acoustic Speech Mapping for Spectral Parameter Correction using Artificial Neural Network Approach.**

Subrata Kumer Paul, Rajshahi University, Bangladesh.

14:30 – 14:45 **Performance Analysis of Different Classifiers Used in Detecting Benign and Malignant Cells of Breast Cancer.**

Mst. Alema Khatun, Dhaka Commerce College, Bangladesh.

14:45 – 15:00 **Difference between Non-Newtonian Carreau and Casson Blood Viscosity Models to Predict Hemodynamics in Idealized Eccentric Arterial Stenosis: Large Eddy Simulation Modeling.**

Shamudra Dey, Shahjalal University of Science and Technology, Bangladesh.

15:00 – 15:15 **Experimental study of NACA 0012 airfoil with slanted drills through the body.**

Nogib Anwar Zafi, Military Institute of Science and Technology, Bangladesh.

Session 3

Session Chair **Ramadan Eljamal**
Co-chair **Khaoula Bensaïda**

15:15 – 15:45 **Keynote Speech: Aerobic Granular Sludge Technology: its application, resource recovery and future.**

Professor Gulsum Yilmaz, Environmental Engineering, Istanbul University-Cerrahpasa, Turkey.

15:45 – 16:00 **Numerical and Experimental Analysis of Pool Boiling Heat Transfer Using Graphene Nanofluid.**

Sooraj K M, Kyushu University, Japan.

16:00 – 16:15 **Determination of Flow Characteristics and Performance Analysis of the Non-rotating & Rotating Cylinder.**

Towsibur Rahman, Military Institute of Science and Technology, Bangladesh.

16:15 – 16:30 **Effect of Fuel Orientation on the Performance of Air Curtains in Confining Fire and Smoke Propagation in Informal Shopping Malls.**

Md Arif Mahmud Shuklo Shoshe, Ahsanullah University of Science and Technology, Bangladesh.

Session 4

Session Chair Omar Falyouna
Co-chair Ibrahim Maamoun

- 16:30 – 17:00 **Keynote Speech: Optimization of mixing in a Chinese dome digester for tropical regions.**
Dr. Abiodun Jegede, Postdoctoral Researcher, Chemical Engineering, Engineering Science, University of Oxford, United Kingdom.
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- 17:00 – 17:15 **Assessment of Thermal performance of Transport Refrigeration Vehicles by Modifications in the Compartment Design and Storage Pattern.**
Fawaz Imtiaz, Bangladesh University of Engineering and Technology (BUET), Bangladesh.
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- 17:15 – 17:30 **Performance of NACA Cambered and Symmetrical Airfoils as Rear Spoilers on Race Car Aerodynamic Drag & Lift: Computational Fluid Dynamics Study.**
Shamudra Dey, Shahjalal University of Science and Technology, Bangladesh.
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- 17:30 – 17:45 **Full factorial experimental design for growth of Spirulina platensis and valuable products enhancement.**
Mir Shariful Islam, Kyushu University, Japan.
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- 17:45 – 18:00 **Design Optimization, Simulation & Performance Analysis of 100MW Solar Tower Thermal Power Plant in Cox's Bazar, Bangladesh.**
Md. Sakib Hossain, Islamic University of Technology, Bangladesh.
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- 18:00 – 18:15 **Study on the Induced Voltage in Piezoelectric Smart Material (PZT) Using ANSYS Electric & Fuzzy Logic.**
Muhammad Javaid Afzal, The University of Lahore, Pakistan.
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18:15 – 18:30

Closing Remark & Best Presenter Award
