


<b>Program Schedule</b>	
<b>Day 1: Thursday, 24 April, 2025</b>	
<b>Kit distribution</b>	<i>Central Auditorium (8:00 am – 9:15 am)</i> <i>IICT Building (2:00 – 3:00 pm)</i>
<b>Inaugural ceremony</b>	9:15 am – 10:45 am <b>Venue: Central Auditorium</b>
	<b>Tea Break (10:45 am – 11:00 am)</b>
<b>Plenary Session I</b> <b>(Central Auditorium)</b> Time: 11:00 am – 12:30 pm	
<b>Keynote speech I:</b> Time: 11:00 am – 11:45 am <b>Chair:</b> Prof. Dr Md Ariful Islam, Dept. of IPE, SUST.	<b>Engineering Curriculum for Research and Innovation, <i>Prof. Dr. Mustafizur Rahman</i></b> , Distinguished Professor, Shahjalal University of Science and Technology, SUST, Sylhet.
<b>Keynote speech II</b> Time: 11:45 am – 12:30 pm <b>Chair:</b> Prof. Dr. Md. Akhtarul Islam, Dept. of CEP, SUST.	<b>Reimagining Carbon: Sustainable CO<sub>2</sub> Utilization for Energy and Chemicals, <i>Prof. Dr. Md. Maksudur Rahman Khan</i></b> , Faculty of Engineering, Universiti Teknologi Brunei, Brunei.

**Prayer & Lunch Break**  
**12:30 pm - 02:00 pm**

**Parallel Technical Sessions I (A-G)**

Time: 2:00 pm – 3:30 pm

<b>Session I (A)</b> <b>Day 1:</b> Thursday, 24 April 2025 <b>Room No:</b> 201, IICT, SUST <b>Reporting Time:</b> 1:50 pm (all presenters)		<b>Theme:</b> Engineering Management <b>Time:</b> 2:00 pm – 3:15 pm <b>Chair:</b> Prof. Dr. Muhammad Saiful Islam, Dept. of CEE, SUST. <b>Moderator:</b> Prof. Dr. Md. Misbah Uddin, Dept. of CEE, SUST.
<b>Time</b>	<b>Paper ID</b>	<b>Titles/ Authors</b>
02:00 – 02:15	072	<b>Assessment of Sanitation Management System of City Dwellers Using GIS and SFD Graphic Tools: A Case Study on Ward-9, Sylhet City Corporation.</b> Ishtiaq Ahmed, Ashikul Enam, Muhammad Azizul Hoque, Prosenjit Kumar, Mohammed Atiqul Hasan
02:15 – 02:30	455	<b>Medical Waste Disposal in Rajshahi: An Analysis of Processes, Safety, and Capacity.</b> Sumaya Tabassum, Md.Zalal Uz Bin,M.A Rahman
02:30 – 02:45	471	<b>Recycling and Waste Management in Departmental Stores of Chattogram City: A Sustainable Approach.</b> Shaurik Ushna Barua, Mir

		Tawsif Sultan, Nowrin Mostafa, Sayanti Kanungo, Adib Al Wakeel, Md Shakhawat Hossain Chowdhury, Asiful Hoque
02:45 – 03:00	593	<b>Materials Storage Layout Optimization for Limited Capacity.</b> Tanjim Tabassum, Arpa Paul, Afia Kabir Kunta
03:00 – 03:15	671	<b>Assessing the Impact of a New Commercial Establishment on Consumers' Destination Choice Behavior.</b> Md Aminul Islam, Md. Bashirul Haque, Shahed Parvez Tushar, Md. Sorower Hossan, Md. Sadman Sakib

<b>Session I (B)</b> <b>Day 1:</b> Thursday, 24 April 2025 <b>Room No:</b> 203, IICT, SUST <b>Reporting Time:</b> 1:50 pm (all presenters)		<b>Theme:</b> Structural Engineering <b>Time:</b> 2:00 pm – 3:30 pm <b>Chair:</b> Prof. Dr. Mushtaq Ahmed, Dept. of CEE, SUST. <b>Moderator:</b> Ayesha Ferdous Mita, Assistant Professor, Dept. of CEE, SUST.
<b>Time</b>	<b>Paper ID</b>	<b>Titles/ Authors</b>
02:00 – 02:15	065	<b>Non-linear analysis of high strength circular concrete-filled-steel tubular stub columns.</b> Bulbul Ahmed, Md. Rozain Rahman, Mrinmoy Sanyal Joy, Md Kamrul Hassan
02:15 – 02:30	085	<b>Seismic Vulnerability Assessment of Existing High-Rise RC Buildings Using Modified Japanese Index Method.</b> Shahidur Rahman Shihab, H.M.A. Mahzuz
02:30 – 02:45	182	<b>Utilization of Construction and Demolition Waste in Civil Engineering Applications: A Comprehensive Review.</b> Adman Shoumick, Titu Dey, Pongkaj Das, Shariful Islam, Sibbir Ahmed
02:45 – 03:00	798	<b>Optimizing Engineered Cementitious Composites (ECC) Performance: The Role of Jute and Nylon Fibers in Sustainable Concrete Design.</b> Imran Sarker Siam, Md Rabiul Hasan, Muhammad Moniruzzaman, Md. Fardin Hossain Rafat
03:00 – 03:15	890	<b>Design optimization for shear strengthening of RC beam using CFRP laminate with embedded double connector.</b> Md Ashraful Alam, Md Delwar Hossain Talukder, Md. Mehedi Hasan Polash
03:15 – 03:30	904	<b>Engineering Characteristics and Application of Recycled Concrete-Crushed Brick Blends in Sub-Base of Road Pavement.</b> Ismail Saifullah, S. M. Shaik-Ul-Karim, Md. Shibbir Ahmed, Mohammad Ali, Zahurul Islam

<b>Session I (C)</b> <b>Day 1:</b> Thursday, 24 April 2025 <b>Room No:</b> 229, IICT, SUST <b>Reporting Time:</b> 1:50 pm (all presenters)		<b>Theme:</b> Environmental Engineering <b>Time:</b> 2:00 pm – 3:30 pm <b>Chair:</b> Prof. Dr. Salma Akhter, Dept. of CEP, SUST. <b>Moderator:</b> Dr. Tajmunnaheer, Associate Professor, Dept. of CEE, SUST.
<b>Time</b>	<b>Paper ID</b>	<b>Titles/ Authors</b>
02:00 – 02:15	061	<b>Water Pollution and Public Health: A Case Study of the Kumar River, Faridpur, Bangladesh.</b> Md Omar Farque, Abhijit Gain, Sazzad Hosen, Md. Golam Muttuqi
02:15 – 02:30	123	<b>Carbon Storage and Vegetation Dynamics in Ratargul Swamp Forest: A GIS-Remote Sensing Approach.</b> Ifat Sharmin, Nayma Akter Nishat, Fahmida Jaman, Fahmida Sultana, Md. Mashrup Hasan
02:30 – 02:45	683	<b>Removal of Chromium (Cr) from Poultry Slurry Using Rice Straw as a Locally Available Adsorbent.</b> Md. Masrub Ahmmad, Hridoy Hasan, Md. Shariar Nur, Mahiman Zinnurain, Md. Habibur Rahman

02:45 – 03:00	848	<b>Impact of Internal Climate Variabilities on Temperature Over Bangladesh.</b> Md. Jubayer Hossain, Md. Jamil Mahmud Abdullah, Roman Mia, Syed Samsudduha Bijoy, Md. Shibly Anwar, Abeda Sultana, Md. Atiqur Rahman
03:00 – 03:15	861	<b>Applications of Fugacity Model Approaches in Environmental and Human Health Risk Assessments: A Review.</b> Abhishek Sarkar, Md. Al Amin, Samia Sarker, Ahnaf Hossain Ornob
03:15 – 03:30	862	<b>Anaerobic Co-Digestion of Tannery Fleshing and Fecal Sludge for Enhancing Biogas Production: A Sustainable Approach for Waste to Energy.</b> Tanvir Ahammed, Shilpy Rani Basak, Ahmad Hasan Nury, Md. Imran Kabir, Md. Hasibul Islam Dhrubo, Pollobi Rani Das, Sabrina Afrin, Srijon Das Swarup

<b>Session I (D)</b> <b>Day 1:</b> Thursday, 24 April 2025 <b>Room No:</b> 303, IICT, SUST <b>Reporting Time:</b> 1:50 pm (all presenters)		<b>Theme:</b> Fuel and Energy <b>Time:</b> 2:00 pm – 3:30 pm <b>Chair:</b> Prof. Dr Md Salatul Islam Mozumder, Dept. of CEP, SUST. <b>Moderator:</b> Dr. Md. Shameem Hossain, Associate Professor, Dept. of Energy Science and Engineering, KUET.
<b>Time</b>	<b>Paper ID</b>	<b>Titles/ Authors</b>
02:00 – 02:15	024	<b>Valorization of rice straw to biofuel components using Ni-Y zeolite.</b> Kuntal Sharma, Nazmul Hasan Rishad, Mohammad Rakib Uddin, Muhammad Abdus Salam
02:15 – 02:30	143	<b>Projecting Bangladesh's Energy Future: Forecasting Gas, Electricity, and Consumption Trends to 2030.</b> Koushik Arko, Sadia Afrin, Abida Afrin, Md. Mortuza Ahmmed
02:30 – 02:45	250	<b>Numerical Prediction of Syngas from Biomass Gasification.</b> Muntasir Mahmud Tanvir, Md. Yousuf Ali, Nishat Anjum, Anzan Biswas, Md Saiful Alam
02:45 – 03:00	693	<b>Harnessing Nature: Optimizing Natural Dye-Sensitized Solar Cells for Sustainable Energy.</b> Ariful Shishir, Salma Akhter, Shawon Kumar Mandal
03:00 – 03:15	707	<b>Hydrogen gas production using microwave plasma pyrolysis from cultured spirulina in digested rotten potato supernatant.</b> Md. Louckman Hossain, Md. Sumon Munshi, Joysen Chowdhury, Md. Masumul Haque
03:15 – 03:30	803	<b>Energy-efficient Bioethanol and Reactive Lignin Production from Pentanol-Water Pretreatment of Biomass.</b> Mohit Mazumdar, Md Shahed Shahriar, Md Khairul Islam, Md Saiful Islam, Sha Md Shahan Shahriar, Sayed MA Salam

<b>Session I (E)</b> <b>Day 1:</b> Thursday, 24 April 2025 <b>Room No:</b> 304, IICT, SUST <b>Reporting Time:</b> 1:50 pm (all presenters)		<b>Theme:</b> Electrical, Optical Communications and Biomedical Engineering <b>Time:</b> 2:00 pm – 3:30 pm <b>Chair:</b> Prof. Dr. Ifte Khairul Amin, Dept. of EEE, SUST. <b>Moderator:</b> Dr. Mohammad Kamruzzaman Khan Prince, Associate Professor, Dept. of EEE, SUST.
<b>Time</b>	<b>Paper ID</b>	<b>Titles/ Authors</b>

02:00 – 02:15	022	<b>An Ultra-compact and High-performance Hybrid Plasmonic Electro-absorption Modulator and Polarizer.</b> Mst. Sumaya Akter, Abdul Khaleque, Kumary Sumi Rani Shaha, Sakib Sadman
02:15 – 02:30	479	<b>Performance Analysis of Visible Light Communication System in Presence of Solar Irradiance.</b> Md. Sabbir Hossain, Md. Jahedul Islam, Sajib Guha
02:30 – 02:45	502	<b>Targeting HER2 In Breast Cancer: In-Silico Exploration Of Natural Compounds Derived From Scoparia Dulcis.</b> Anik Chandro Paul, Nasrin Akter Tithe, Md. Abdul Alim, Mohammad Taufiq Alam
02:45 – 03:00	629	<b>Optical Sorting of Nanorods via Chiral Dielectric Hyperbolic Metamaterials in Clustered Configurations.</b> Md. Janibul Alam Soeb, Md. Al Amin Chy, Md. Ajjul Haque Sakib Opu
03:00 – 03:15	662	<b>Design and Fabrication of a Versatile and Cost-Effective Myoelectric Prosthetic Wrist.</b> Md. Arman Hassan, Tanjim Azad Jarif, Jubaer Al-Amin Emon, Lamia Tasnim Suhi
03:15 – 03:30	857	<b>Optimized Microwave Resonator-based Antenna with Wireless Communication Capabilities for Noninvasive Blood Glucose Detection.</b> Sohanur Rahaman, Md Rejvi Kaysir, Sabuj Sarkar, Md Jahirul Islam

<b>Session I (F)</b> <b>Day 1:</b> Thursday, 24 April 2025 <b>Room No:</b> 130, ICT, SUST <b>Reporting Time:</b> 1:50 pm (all presenters)		<b>Theme:</b> Design and Development <b>Time:</b> 2:00 pm – 3:30 pm <b>Chair:</b> Prof. Dr. Md. Mosharraf Hossain, Dept. of IPE, RUET. <b>Moderator:</b> Shanta Saha, Associate Professor, Dept. of IPE, SUST.
<b>Time</b>	<b>Paper ID</b>	<b>Titles/ Authors</b>
02:00 – 02:15	058	<b>Design and Performance Analysis of Phase Change Material (PCM) Integrated HVAC System in Residential and Commercial Buildings of Bangladesh.</b> Tanveer Razuan Badhon, Fardeen Sayed Ullash, Moontasir Bin Selim, Fahim Shahriar Saad, Ajmain Mahtab
02:15 – 02:30	133	<b>Development of an Intelligent In-Situ NPK Measurement System for Sustainable Agriculture in Bangladesh.</b> Ayan Chowdhury, Avishek Chowdhury, Amitav Mandal, Sieam Sadi Rabbi
02:30 – 02:45	454	<b>Design and Performance Analysis of a Honeycomb-Shaped Brass Alloy Catalytic Converter for Sustainable Emission Control in 4-Stroke Engine.</b> Rahat Ullah, Md. Irfan Sadik Bhuiyan, Mohammad Abrar Jawad Chowdhury
02:45 – 03:00	733	<b>Design and Performance Evaluation of a Novel type Star-Shaped Auxetic Structure for Enhanced Energy Absorption.</b> Asma Akhter, Abdul Kader, Sazzad Hossain, Easmin Sultana, Abdul Wares
03:00 – 03:15	845	<b>Design, Development, and Performance Evaluation of a PCM-Based Thermal Storage System for Solar Energy Applications.</b> Md. Md. Humayun Kabir Jim, Rudro Kumar Shaha, Tanvir Ahmed Joy, Md. Zahid Sarker
03:15 – 03:30	923	<b>Design and Assessment of Modular Product Architectures for Circular Economy.</b> Md. Sanowar Hossain, Ripon K. Chakraborty

<b>Session I (G)</b> <b>Day 1:</b> Thursday, 24 April 2025 <b>Room No:</b> 330, ICT, SUST <b>Reporting Time:</b> 1:50 pm (all presenters)		<b>Theme:</b> Energy and Environment <b>Time:</b> 2:00 pm – 3:30 pm <b>Chair:</b> Prof. Dr. A.B.M. Abdul Malek, Dept. of IPE, SUST. <b>Moderator:</b> Dr Md Fakar Uddin, Associate Professor, Dept. of CEP, SUST.
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Time	Paper ID	Titles/ Authors
02:00 – 02:15	054	<b>Biocrude Production from Organic Kitchen Waste via Hydrothermal Liquefaction: A Waste-to-Fuel Approach.</b> Kazi Siamul Islam, Soharab Hossain Shanto, Md. Meraz Hasan, Md. Abdulla-Al-Mamun, Md. Shameem Hossain
02:15 – 02:30	576	<b>Development and Performance Analysis of a Solar Collector Based Heat Storage System Using Beeswax/CuO as Nano-Phase Change Material.</b> Rayan Md. Moinuddin, Dr. A. N. M. Mizanur Rahman
02:30 – 02:45	759	<b>Modeling and Simulation of Photovoltaic Performance of Lead-Free Novel Perovskite AgZnF3 Utilizing SCAPS-1D.</b> Md Mehidi Hasan, Mohammad Dilwar Ali Alvee
02:45 – 03:00	826	<b>Incineration of solid waste: A prospective solution to hydrogen generation.</b> Mst Nusrat Akther, Nusrat Nawar Ahsan, Hasan Muhommod Robin, Mim Mashrur Ahmed
03:00 – 03:15	888	<b>Extraction and Corrosion Effect Evaluation of Biodiesel Produced from Non-edible Seed Oil.</b> Md. Sohanur Rahman, Sajal Chandra Banik, Golam Saklayen
03:15 – 03:30	895	<b>Numerical Analysis of Solar Air Heater with Transverse Semi-Hexagonal Ribs.</b> Kishore Das, Md. Shahidul Islam, Joyanta Roy Chowdhury, Rifat Ul Alam



**Tea Break**  
**03:30 pm - 03:45 pm**

### Parallel Technical Sessions II (A-G)

Time: 3:45 pm – 5:15 pm

<b>Session II (A)</b> <b>Day 1: Thursday, 24 April 2025</b> <b>Room No: 201, ICT, SUST</b> <b>Reporting Time: 3:35 pm (all presenters)</b>		<b>Theme:</b> Structural Engineering <b>Time:</b> 3:45 pm – 5:30 pm <b>Chair:</b> Prof. Dr. Ismail Saifullah, Department of Civil Engineering, KUET. <b>Moderator:</b> Dr. Muhammad Saiful Islam, Professor, Dept. of CEE, SUST.
Time	Paper ID	Titles/ Authors
03:45 – 04:00	156	<b>Comparison of Seismic Responses of RC Structures for Varying Support Conditions and Soil-Structure Interaction in Bangladesh</b> Mahmudul Hasan, A.K.M. Rubyat Hasan Apu, Sagar Datta, Md. Shahlan Kabir
04:00 – 04:15	160	<b>Utilization of Aluminum Foil Waste as Fiber Reinforcement in Sustainable Concrete Production.</b> Archita Dash Nodi, Oishe Rani Dey, Banya Biswas Trisha, Shariful Islam, Sibbir Ahmed
04:15 – 04:30	166	<b>Performance Evaluation of Concrete Incorporating Glass Powder and Steel Scrubbers.</b> Oishe Rani Dey, Banya Biswas Trisha, Archita Dash Nodi, Shariful Islam, Mushtaq Ahmed
04:30 – 04:45	184	<b>Optimizing Foamed and Flowable Concrete with Sodium Lauryl Sulfate as a Cost-Effective Foaming Agent.</b> Md Shihab Sarar, Md. Abdul Muhaimin Soykoth, Subrina Hussain Liya, Md. Al-Mamun, Shariful Islam

04:45 – 05:00	186	<b>Development of a Low-Cost Video Processing Technique for Generating Stress-Strain Diagrams in Rebar Tension Testing.</b> Md Adnan Rahman, Md Tanvir Rahman, Md Riazul Alam, Al Mubin Nahid, Md Rakibul Islam, Sameeha Islam, Md Ferdous Alam
05:00 – 05:15	552	<b>Compressive Stress Analysis for Loading Directionality on Partially Bonded Square Shaped Scrap Tire Rubber Pad Base Isolator.</b> Md Mistak Hossain, Md. Basir Zisan
05:15 – 05:30	793	<b>Producing Self-Compacting Concrete Using Locally Available Materials in Bangladesh.</b> Md. Nazrul Islam Kazi, Syed Samsudduha Bijoy, Tasnim Nishat Aishee, Md. Jamil Mahmud Abdullah, Mahiman Zinnurain, Rupak Mutsuddy

<b>Session II (B)</b> <b>Day 1:</b> Thursday, 24 April 2025 <b>Room No:</b> 203, ICT, SUST <b>Reporting Time:</b> 3:35 pm (all presenters)		<b>Theme:</b> Geotechnical Engineering <b>Time:</b> 3:45 pm – 5:30 pm <b>Chair:</b> Prof. Dr. Shriful Islam, Professor, Dept. of CEE, SUST. <b>Moderator:</b> Nur Md. Robiul Hoque, Assistant Professor, Dept. of CEE, SUST.
<b>Time</b>	<b>Paper ID</b>	<b>Titles/ Authors</b>
03:45 – 04:00	039	<b>Enhancing Soil Performance Using Quarry Waste and HDPE Geocell Reinforcement: A Numerical Analysis Approach.</b> Shantunu Chowdhury, Anindya Baidya, Susmith Kundu, Aishik Gupta, Indraneel Das
04:00 – 04:15	168	<b>Image Processing-Based Morphological Properties and Gradation Analysis of Coarse Aggregates.</b> Syedur Rahman, Md Raihan Bin Mostafij, Mahmudul Hasan Maruf, Sameeha Islam, Md Ferdous Alam
04:15 – 04:30	348	<b>Utilizing Sustainable Soil Stabilization Methods: Xanthan Gum as a Sustainable Soil Stabilizer.</b> Sagar Datta, Md.Saifur Rahman, Anindita Das, Lamia Ahmed Sadia, Md. Abir Hasan
04:30 – 04:45	369	<b>Correlations for Engineering Properties of Fine-Grained Soils Using SPT-N Values: Insights from Geotechnical Practices in Bangladesh.</b> Jabed Omar, Md. Tareq Rahman, Md. Ferdous Alam
04:45 – 05:00	800	<b>Effects of Silty Clay on Compaction Characteristics of Fine-Grained Sand.</b> Robiul Islam, Nazmul Hassan, Md. Mokhlesur Rahman, Rakib Hasan
05:00 – 05:15	836	<b>Assessment of Geotechnical Properties of Clay Soils in the Dupi Tila Formation for Construction Applications.</b> Maliha Anzuman, Ummae Habiba Sultana, Md Shofiqul Islam, Md Ashraf Hossain
05:15 – 05:30	852	<b>Effect of clay mica layer on stability analysis of composite riverbank using LEM method.</b> Md. Shahidul Islam, Md. Abdul Matin

<b>Session II (C)</b> <b>Day 1:</b> Thursday, 24 April 2025 <b>Room No:</b> 229, ICT, SUST <b>Reporting Time:</b> 3:35 pm (all presenters)		<b>Theme:</b> Environmental Engineering <b>Time:</b> 3:45 pm – 5:15 pm <b>Chair:</b> Prof. Dr. Md. Misbah Uddin, Dept. of CEE, SUST. <b>Moderator:</b> Dr. Shilpy Rani Basak, Associate Professor, Dept. of CEE, SUST.
<b>Time</b>	<b>Paper ID</b>	<b>Titles/ Authors</b>
03:45 – 04:00	197	<b>Carbon Emission Analysis and Ocean Acidification Due to Urbanization in Chattogram: Effects on Water and Protective Measures.</b> Ramisa Tanjum 370Rain, Trioma Roy
04:00 – 04:15	251	<b>Assessing Monsoon Flood Impact on Vegetation in Sylhet Division Using Google Earth Engine.</b> Md. Raihan Bhuiyan

04:15 – 04:30	330	<b>Revolutionizing Waste Management in Rajshahi City Corporation: A Technological Solution for Enhanced Recycling and Community Engagement towards Zero Waste.</b> Intiaj Iqbal Mahfuj, Nawreen Ferdous Tamim, Zannatul Adol Binte Abdul Aziz, Dulal Sarker, Muhaiminul Islam
04:30 – 04:45	546	<b>Assessment of Heavy Metal Pollution Risk in Sludge from Open Drainage Systems in Rajshahi, Bangladesh.</b> Umme Kulsum, Sha Md. Shahan Shahriar, Md Tasif Amir Sufal, Tafsir Hasan, Md. Mahfujul Hasan, Md. Sarwar Hossain, Md. Khairul Islam, Md. Saiful Islam, Sayed M A Salam
04:45 – 05:00	732	<b>Assessing the Impact of Climatic and Environmental Determinants in Dengue Transmission Dynamics.</b> Meghla Mondal, Mohammad Ismail Hossain, Md Nahid Ferdous
05:00 – 05:15	846	<b>Investigating the Root Causes of Air Pollution in Dhaka: A Statistical Analysis Using Correlation Heatmap.</b> Sadia Afrin, Koushik Biswas Arko, Abida Afrin, Md. Mortuza Ahmmed

<b>Session II (D)</b> <b>Day 1:</b> Thursday, 24 April 2025 <b>Room No:</b> 303, IICT, SUST <b>Reporting Time:</b> 3:35 pm (all presenters)		<b>Theme:</b> Food Engineering <b>Time:</b> 3:45 pm – 5:15 pm <b>Chair:</b> Prof. Dr Md. Mozammel Hoque, Dept. of FET, SUST. <b>Moderator:</b> Prof. Dr Rowshon Ara, Dept. of FET, SUST.
<b>Time</b>	<b>Paper ID</b>	<b>Titles/ Authors</b>
03:45 – 04:00	056	<b>Optimization of Bioactive Compounds and Antioxidant from Citrus Lemon Peel Extracted by Ultrasound.</b> Md Fuad Al Hasan, Animesh Sarkar, Shuvojit Roy
04:00 – 04:15	095	<b>Efficient Postharvest Storage of Oyster Mushrooms Using Aloe Vera-Pectin Composite Coating with Tea Polyphenols.</b> Shuvojit Roy, Animesh Sarkar, Md Fuad Al Hasan
04:15 – 04:30	403	<b>Development and Quality Evaluation of Multigrain Vanilla Muffin.</b> Md. Masumul Haque, Md. Julkor Nayin, Farjana Khondoker, Shauvik Das Shuvo, Badhan Karmakar, Maliha Yusuf Shupti, S M Jahir Rayhan, Nusrat Jahan Mimi, Anika Tahasin Zannatul, Nayem Showmik, Lamia Binte Siddique, Anandi Mondal Kankon
04:30 – 04:45	574	<b>Extraction and characterization of pectin from carambola (Averrhoa carambola) peel using conventional, microwave-assisted and ultrasound-assisted techniques.</b> Md Jhangir Alam, Md. Suhel Mia, Oliur Rahman and Wahidu Zzaman
04:45 – 05:00	690	<b>Identification of bioactive volatile compounds and antioxidant properties of four varieties of black tea found in Bangladesh.</b> Md. Zahidul Islam, Farzana Yasmin, Md. Rashedul Munim Khan, Md. Murad Hossain, Md. Amirul Islam Kazi, G. M. Masud Rana, Mst. Sarmina Yeasmin, Wahidu Zzaman
05:00 – 05:15	695	<b>Sanitation's Silent Impact: A Missing Puzzle Piece in Child Nutrition and Growth.</b> Swarnali Bhattacharjee and Mohammad Ismail Hossain

<b>Session II (E)</b> <b>Day 1:</b> Thursday, 24 April 2025 <b>Room No:</b> 304, IICT, SUST <b>Reporting Time:</b> 3:35 pm (all presenters)		<b>Theme:</b> Renewable Energy <b>Time:</b> 3:45 pm – 4:45 pm <b>Chair:</b> Prof. Dr. Abdul Khaleque, Dept. of EEE, RUET. <b>Moderator:</b> Dr. Md Rasedujjaman, Associate Professor, Dept. of EEE, SUST.
Time	Paper ID	Titles/ Authors
03:45 – 04:00	074	<b>Hierarchical Modeling of Product Demand Forecasting in the Presence of Promotion using Prophet: A Multivariate Multiple Time Series Approach.</b> Ahmed Abul Fazal, F. K. Sadia, M. M. Islam
04:00 – 04:15	259	<b>Design and Control of a Solar PV based Microgrid with Battery Energy Storage to Stabilize DC link and DC bus Voltages.</b> Dr. Mohammad Prince, Ad-Deen Mahbub, Md. Rimon Hossain, Saeed Ahmed, Md. Rashedul Islam, Sartaj Aziz, Md. Shariful Islam
04:15 – 04:30	544	<b>Design and Implementation of IoT-Driven DC Motor Actuation with Embedded Thermal Protection.</b> Sadikur rahman, Md Zunaid Hossen, Khalid Hossen, Ahmed Jubyer, Sarafat Hussain Abhi
04:30 – 04:45	827	<b>A Modular Battery Management System with Active Balancing, Fault Detection and IoT Integration</b> Asifur Rahman Siyam, Md. Sadikur Rahman, Atia Sadika

<b>Session II (F)</b> <b>Day 1:</b> Thursday, 24 April 2025 <b>Room No:</b> 130, IICT, SUST <b>Reporting Time:</b> 3:35 pm (all presenters)		<b>Theme:</b> Energy and Environment <b>Time:</b> 3:45 pm – 5:15 pm <b>Chair:</b> Prof. Dr. A N M Mizanur Rahman, Dept. of ME, KUET. <b>Moderator:</b> Prof. Dr. Muhammad Abdus Salam, Dept. of CEP, SUST.
Time	Paper ID	Titles/ Authors
03:45 – 04:00	052	<b>Sustainable Energy Management in Industrial Wastewater Treatment: A Case Study of a Textile Industry.</b> Khaled Bhuiya, Nusrat Jahan, Md. Shariful Islam Shuvo, Muzahada Binta Mukbul, Angkur Saha, Md Mahamudul Hossain Bhuiyan
04:00 – 04:15	539	<b>Waste to Energy Conversion Using Chemical Looping Technology- A Review on Bangladesh Perspective.</b> Yasir robin, Abu Shadat Muhammad Sayem, Souman Rudra
04:15 – 04:30	680	<b>A Review of Electrochemical CO<sub>2</sub> Reduction to Formate using Metal Oxides: Mechanism, Challenges and Advancements.</b> Adittyia Chowdhury Joy, Prasanjit Das
04:30 – 04:45	742	<b>A Comprehensive Review on Recent Advances in the Implementation of Self-Healing Active Metal Alloys for Battery Electrodes.</b> Shaadnan Syed, Hemal Naha, Md. Zahurul Islam, Md. Mosharaf Hossain
04:45 – 05:00	801	<b>Dye Synthesized Solar Cell as a Renewable Energy Source: A Comprehensive Review.</b> Kazi Mamunur Rahman Rifat, Md. Farhan Jakib, Md. Mahmudul Hasan, Tamjid Hassan Anonno, Wahid Abrar Tonmoy
05:00 – 05:15	843	<b>An overview of various methods for synthesizing MOFs for Wastewater Treatment: A comparative analysis.</b> Fardin-Al- Rafin, Md. Shazu Ahamed Anik, Shahinul Alam, Samin Suhas, Zannatul Mim

<b>Session II (G)</b> <b>Day 1:</b> Thursday, 24 April 2025 <b>Room No:</b> 330, IICT, SUST	<b>Theme:</b> Fluid Mechanics and Dynamics <b>Time:</b> 3:45 pm – 5:15 pm <b>Chair:</b> Prof. Dr. Mst. Nasima Bagum, Dept of IPE, SUST.
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<b>Reporting Time:</b> 3:35 pm (all presenters)		<b>Moderator:</b> Syeda Kumrun Nahar, Associate Professor, Dept of IPE, SUST.
<b>Time</b>	<b>Paper ID</b>	<b>Titles/ Authors</b>
03:45 – 04:00	161	<b>Experimental Analysis of Swirl Influence on Mean Flow Characteristics in Free Circular Jets.</b> SM Mehady Hasan, Nafisa Ibnat Tasfee, Md. Soykot Tanvin Rudro, Dr. M. A. Taher Ali
04:00 – 04:15	509	<b>Improvement of Aerodynamic Performance of Missile with Wing and Tailfin Configuration using CFD Simulations.</b> Kazi Md Mehedi Hasan, Md Rokib Hasan, Md Mahabur Hossain, Md Rafiul Islam
04:15 – 04:30	558	<b>Optimizing Sedan Car Aerodynamics: Impact of Rear Diffuser Angles on Drag Reduction and Stability.</b> Fahim Abrar Nabil, Dr. Kazi Afzalur Rahman, Rahat Hossain, Mahabub Hossen, Golam Saklayen
04:30 – 04:45	630	<b>Numerical Flow Analysis of a Compound Notch Configuration: Combination of Inverted V-Notch with Semi-Circular Gate.</b> Arafat Sarkar, Shakhawat Hossain
04:45 – 05:00	921	<b>Bifurcation Analysis, Chaotic Behavior, and Sensitivity Analysis of the Real Stochastic Ginzburg-Landau Equation.</b> Al-Amin Kabir Khan Shohag, Mst. Mariya Akter Reya, Md. Tarikul Islam
05:00 – 05:15	946	<b>Improved Mixing in Compact Static Mixers with Vortex Generators.</b> Shakhawat Hossain, S. M. Bhuiyan

**Day 2: Friday, 25 April, 2025**

**Parallel Technical Sessions III (A-G)**

Time: 08:15 am – 09:45 am

<b>Session III (A)</b> <b>Day 2:</b> Friday, 25 April 2025 <b>Room No:</b> 201, IICT, SUST <b>Reporting Time:</b> 8:05 am (all presenters)		<b>Theme:</b> Architecture <b>Time:</b> 08:15 am – 10:00 am <b>Chair:</b> Iftekhar Rahman, Head and Associate Professor, Dept. of Architecture, SUST. <b>Moderator:</b> Prof. Dr. Md. Mustafizur Rahman, Dept. of Architecture, SUST.
<b>Time</b>	<b>Paper ID</b>	<b>Titles/ Authors</b>
08:15 – 08:30	292	<b>Amphibious Architecture as a Resilient Solution for Flood-Prone Regions: Assessing Viability in Bangladesh's Seasonal Flood Zones.</b> Shaikat Sarkar, Hridoy Debnath, Koushik Karmaker
08:30 – 08:45	370	<b>Architectural Insights into the National Museum of Science and Technology, Bangladesh: A Comprehensive Documentation.</b> Ashraf-uz- Zaman, A.A. Mueid, Asaduzzaman
08:45 – 09:00	492	<b>Controlling Humidity and Temperature through Building Orientation and Landscape Design in Sericulture</b> Md Faisal Mahmud, Nadia Monzur, Sheikh Hameem, Nowshin Tabassum, Md. Sabbir Ahsan

09:00 – 09:15	609	<b>A Comprehensive Review on Groundwater Contamination by Heavy Metals In Bangladesh</b> S.M. Arafat Hossain, Wasi Ahmed, Shoeb Ahmad Tanim, Ishfaq Ahmad
09:15 – 09:30	644	<b>A Participatory Approach to Develop Homestead Farming in Khirshan, Rajshahi.</b> Md. Naimur Rahman
09:30 – 09:45	694	<b>Advancing Energy Efficiency in Buildings: A Review of Window Technologies.</b> Md. Jubayer Hossan Salman, Khadijatul Kubra Mim, Muhammad Saiful Islam, H.M.A. Mahzuz
09:45 – 10:00	728	<b>Sustainable Hospitality Design: Implementing Passive Strategies to Address Environmental and Energy Issues.</b> Nahida Binte Wodud, Md. Sabbir Ahsan ,Sheikh Hameem

<b>Session III (B)</b> <b>Day 2:</b> Friday, 25 April 2025 <b>Room No:</b> 203, ICT, SUST <b>Reporting Time:</b> 8:05 am (all presenters)		<b>Theme:</b> Transportation Engineering <b>Time:</b> 08:15 am – 09:45 am <b>Chair:</b> Prof. Dr. Md Bashirul Haque, Professor, Department of CEE, SUST. <b>Moderator:</b> Md. Aminul Islam, Assistant Professor, Department of CEE, SUST.
<b>Time</b>	<b>Paper ID</b>	<b>Titles/ Authors</b>
08:15 – 08:30	034	<b>Exploring Traffic Crash Dynamics at Unsignalized Intersections: Insights from Dhaka Metropolitan Area.</b> Md Rashel Morshed, Rocksana Akter, Morshedul Alam, Mahiman Zinnurain
08:30 – 08:45	069	<b>Predicting Road Accidents on the N7 National Highway Using LSTM Networks.</b> Md Ibrahim Bhuyia, Mahmudur, Arafat Bin Ansar
08:45 – 09:00	211	<b>Determine Optimal Location of an Urban Bus Terminal Utilizing SWOT Analysis: A Case Study.</b> Mursheda Rahman, Mohmodul Hasan Tamim, Tawhidul Islam Bhuiyan
09:00 – 09:15	225	<b>Effect of Socio-Economic and Demographic Factors on Non-App-Based Ride-Hailing Services in Dhaka City, Bangladesh.</b> Mursheda Rahman, Israk Mahmud, Mohmodul Hasan Tamim, Tanjil Rahman
09:15 – 09:30	318	<b>Commuter Train and Bus Services between Dhaka and Narayanganj: A Comparative Characteristic Analysis with Recommendations.</b> Md Shoaib Chowdhury, Md. Farhan Shahriar Alam and Md. Fahim Al Mamun
09:30 – 09:45	329	<b>Urban Arterial Operational Issues and Solutions: A Case of Pragati Sharani in Dhaka City.</b> Md Shoaib Chowdhury, Arafat Rahman, Md. Al Amin, Md. Ishtiaq Jamil and Humayun Kabir Rifat

<b>Session III (C)</b> <b>Day 2:</b> Friday, 25 April 2025 <b>Room No:</b> 229, ICT, SUST <b>Reporting Time:</b> 8:05 am (all presenters)		<b>Theme:</b> Environmental Engineering <b>Time:</b> 08:15 am – 09:45 am <b>Chair:</b> Prof. Dr. Gulam Md. Munna, Dept. of CEE, SUST. <b>Moderator</b> Jafor Ahmed Limon, Assistant Professor, Department of Civil Engineering, Leading University, Sylhet.
<b>Time</b>	<b>Paper ID</b>	<b>Titles/ Authors</b>
08:15 – 08:30	017	<b>Performance Assessment of Surface-Treated Recycled Aggregates for Eco-Friendly Concrete Applications.</b> Faruque Abdullah, Md. Tasbirul Hussain, Sultana Musfirat Negar Parvin, Munshi Mohammad Iskander
08:30 – 08:45	067	<b>A Case Study on Sustainable Tourism: Water Quality Assessment for Kaptai and Karnaphuli Areas of Chattogram, Bangladesh</b> Puja Bhowmik, Mahia Rahman Mumu, Ramisa Rain

08:45 – 09:00	422	<b>Investigate The Effect of Waste Tiles Powder on Producing Sustainable Recycled Aggregate Concrete.</b> Md. Ashrafal Islam, Naib Ahmed Rhyzon, Farjana Bari, Md. Mehedi Hassan Galib
09:00 – 09:15	521	<b>Machine Learning-Based Evaluation of Groundwater Level Fluctuations in Khulna District.</b> Rana Hamid, Zahid Imtiaz, Md. Sazzat Hossain, Mehedi Hasan
09:15 – 09:30	586	<b>An Eye Toward the Critical Water Supply, Sanitation, and Hygiene (WASH) Challenges in the Dekar Haor Wetland, Bangladesh.</b> Md. Redoy Husan, Md. Jahir Bin Alam
09:30 – 09:45	600	<b>Salt-Free Preservation of Animal Skins: An Eco-Friendly Innovation.</b> Nadim Hasan, Professor Mohammad Taufiq Alam, Md Sunjin Ahsun, Promita Poroma Sarkar, Md. Tamzid Hossain Molla

<b>Session III (D)</b> <b>Day 2:</b> Friday, 25 April 2025 <b>Room No:</b> 303, IICT, SUST <b>Reporting time:</b> 08:05 am (all presenters)		<b>Theme:</b> Food Safety and Packaging Technology <b>Time:</b> 08:15 am – 09:45 am <b>Chair:</b> Prof. Dr Iftekhar Ahmad, Dept. of FET, SUST. <b>Moderator:</b> Prof. Dr G M Rabiul Islam, Dept. of FET, SUST.
<b>Time</b>	<b>Paper ID</b>	<b>Titles/ Authors</b>
08:15 – 08:30	503	<b>Processing of Ginger, Garlic, and Onion Powders: Studies on Its Drying Kinetics, Nutritional Quality, Sorption Behaviors and Storage Stability.</b> Md Istiakhan Jahan, Saharaj Uddin, Md Zohurul Islam
08:30 – 08:45	508	<b>Influence of Storage Condition on Rheological, Color and Microbial Properties of Puree Product from Garlic, Ginger and Onion Mixture.</b> Wazef Mahmud Chowdhury, Md Istiakhan Jahan, Md Zohurul Islam
08:45 – 09:00	535	<b>Eco-Innovative Biodegradable Packaging Solutions: Integrating Graphene Oxide, Gelatin, and Anthocyanin.</b> Arif Monsur Chowdhury, Md Zohurul Islam
09:00 – 09:15	537	<b>Impact of Different Foam Mat Drying Techniques on Physicochemical, Antioxidant Properties and Probiotic Stability of Black Plum Juice Powder.</b> Most Marjia Rahman Nijum, Md. Zohurul Islam
09:15 – 09:30	925	<b>Development and Characterization of UV-Blocking Packaging Film Using Hyptis suaveolens Mucilage, Citrus Macroptera Peel Essential Oil, and Black Gram Husk Lignin.</b> Siddatul Sabbir, Md Zohurul Islam, Md. Mozammel Hoque
09:30 – 09:45	944	<b>Antioxidant-Enhanced Biodegradable Nanocomposite Films for Food Packaging.</b> Md. Abu Rayhan, Wahiduzzaman

<b>Session III (E)</b> <b>Day 2:</b> Friday, 25 April 2025 <b>Room No:</b> 304, IICT, SUST <b>Reporting Time:</b> 8:05 am (all presenters)		<b>Theme:</b> AI and Machine Learning <b>Time:</b> 08:15 am – 09:45 am <b>Chair:</b> Prof. Dr. M. Shahidur Rahman, Dept. of CSE, SUST. <b>Moderator:</b> Dr. Sadia Sultana, Associate Professor, Dept. of CSE, SUST.
<b>Time</b>	<b>Paper ID</b>	<b>Titles/ Authors</b>
08:15 – 08:30	645	<b>Evaluating Machine Learning and Deep Learning Models for Rainfall Prediction in the Southeastern Region of Bangladesh.</b> Panna Shil, Md. Eyakub Ali, Md. Shadman Shakib, Md. Istihad Bhuiyan, Anirban Chanda, Badhan Dey, Fazlul Karim


08:30 – 08:45	664	<b>Machine Learning-Driven Optimization of Bioelectrical Impedance Analysis for Intracellular Fluid Prediction.</b> Jannatul Nayem Novera, Md. Eyakub Ali, Mohammad Mahmudul Alam Mia, Aynal Haque, Tahasin Ahmed Fahim, Israt Jahan
08:45 – 09:00	696	<b>Enhancing Heart Attack Forecasting Using Machine Learning Models.</b> Sohan Apurbo ,Israt Jahan Shanta, Sharmin Akter, Md.Forhad Ali
09:00 – 09:15	817	<b>BSER- Bengali Speech Emotion Recognition using MFCC Features Based on SUBESCO and BanglaSER: A Comparative Study of Machine Learning Models.</b> Nripendro Biswas, Ahmed Rijvee, Munaem Ahmed Mahdi, Alif Azam, Md. Takoat Hossain
09:15 – 09:30	820	<b>An Innovative Approach to Smoker Status Classification with ML Algorithms in Bangladesh.</b> Osman Goni, Newton Das, Sabib Ahmed, Jannatul Aspia, Mayaz Uddin
09:30 – 09:45	902	<b>Survey of Machine Learning Techniques for Detecting Buffer Overflow Vulnerabilities.</b> Emran Kanaan, Syeda Alam, Mst Shapna Akter

<b>Session III (F)</b> <b>Day 2:</b> Friday, 25 April 2025 <b>Room No:</b> 130, IICT, SUST <b>Reporting Time:</b> 8:05 am (all presenters)		<b>Theme:</b> Industrial Engineering <b>Time:</b> 08:15 am – 09:45 am <b>Chair:</b> Prof. Dr. Md. Ariful Islam, Dept. of IPE, SUST. <b>Moderator:</b> Dr. Md Monir Hossain, Associate Professor, Dept. of FET, SUST.
<b>Time</b>	<b>Paper ID</b>	<b>Titles/ Authors</b>
08:15 – 08:30	199	<b>Maintaining Lane Can Reduce The Waiting Time In A Road Intersection - A Simulation Study.</b> Abul Mukid Mohammad Mukaddes, Md. Khairul Basar, Zobayer Hasan
08:30 – 08:45	475	<b>Optimization of Process Parameters for Longitudinal Rib Height Consistency in TMT Steel Bars Using the Taguchi Method.</b> Md. Golam Mortoza, Md Jubair Likhon, Mohammad Salman Haque
08:45 – 09:00	520	<b>Implementation of Lean Tools to Accelerate Performance in the RMG Industry: A Case Study.</b> Md. Jahedul Alam, Mohammad Muhshin Aziz Khan, Towhid Arsalan, Kaniz Fatema, Md. Asadur Rahman
09:00 – 09:15	567	<b>A Simulation Study of Patient Flow and Resource Utilization in a Selected Diagnostic Center Using Arena.</b> Fahmida Khatun Chowdhury, Md Sadman Sami and Abul Mukid Mohammad Mukaddes
09:15 – 09:30	819	<b>Investigating the Factors of Job Satisfaction and Their Influence on IT Employee Performance.</b> Shamsul Arafat Chowdhury, Imtiaz Kabir Niloy, Ashrafe Bin Alim, Md. Sanowar Hossain, S.M Ashfaque Hossain, Avijit Saha Tonmoy, Munema Islam, Nazmun Ara, Md. Saiful Parvez
09:30 – 09:45	945	<b>Finding location preferences of foot over bridge in a city of Bangladesh using a multi-criteria decision-making method.</b> Md. Shaminur Rahman, Md. Rabiul Islam, Md. Mosharraf Hossain, Md. Rasel Sarkar and Md. Limonur Rahman Lingkon

<b>Session III (G)</b> <b>Day 2:</b> Friday, 25 April 2025 <b>Room No:</b> 330, IICT, SUST <b>Reporting Time:</b> 8:05 am (all presenters)		<b>Theme:</b> Material Science I <b>Time:</b> 08:15 am – 09:45 am <b>Chair:</b> Prof. Dr. Muhammad Mahamood Hasan, Dept. of IPE, SUST. <b>Moderator:</b> Prof. Dr Md Mostafizur Rahman, Dept of CEP, SUST.
<b>Time</b>	<b>Paper ID</b>	<b>Titles/ Authors</b>

08:15 – 08:30	131	<b>Effect of TiO<sub>2</sub> filler on the mechanical behavior of JUCO fiber-reinforced composites: FEA and experimental investigation.</b> Md.Noman Ali, Md Foisal Hossain, Muhammed Sohel Rana, Md Shafiul Ferdous
08:30 – 08:45	223	<b>First-Principles Investigation of Structural, Electrical, Optical, and Mechanical Properties of R<sub>3c</sub>-MgTiO<sub>3</sub>.</b> Tasmi Akter, Saptorsi Kundu, Riyad Kawsar
08:45 – 09:00	310	<b>First Principles Analysis of Structural, Electronic, Optical and Mechanical Properties of Rb<sub>2</sub>BB'Br<sub>6</sub> (BB' = CsTl, InGa, TlAs, NaGa) Double Perovskites for Optoelectronic Technologies.</b> Avijit Das Pritom, Md. Shahid Ahmad, Jahirul Islam
09:00 – 09:15	473	<b>Variation in Mechanical Properties Along the Length of Billet-Derived TMT Rebar: An Analytical Study.</b> Md Jubair Likhon, Md Golam Mortoza, Mohammad Salman Haque
09:15 – 09:30	746	<b>DFT Investigation of Cs<sub>2</sub>NaPBr<sub>6</sub>: A Promising Double Perovskite for Sustainable Energy Applications.</b> Fatema-Tuz- Zahra, Md Shah Nawaz Romel
09:30 – 09:45	896	<b>Numerical Investigation of Knuckle Pin with Glass Reinforced Composite Using Finite Element Method.</b> Rittika Ghosh, Md. Shahidul Islam, Adnan Roshid Shawon, Mir Anjirin Tazrin

**Plenary Session II**  
**(Gallery 2, IICT Building)**

<b>Plenary Session II</b> <b>(Gallery 2, IICT Building)</b>	
<b>Keynote speech III</b> Time: 9:45 am – 10:30 am <b>Chair:</b> Prof. Dr. Mohammad Shahidur Rahman, Dept. of CSE, SUST.	<b>Implement AI in Your Surroundings, <i>Professor A B M Shawkat Ali</i>,</b> Vice-Chancellor, Bangladesh University of Business and Technology (BUBT), Mirpur, Dhaka, Bangladesh
	<b>Tea Break</b> (10:30 pm – 10:45 pm)
<b>Keynote speech IV</b> Time: 10:45 am – 11:30 am <b>Chair:</b> Iftekhar Rahman, Dept. of ARC, SUST.	<b>Architecture of Transition, <i>Marina Tabassum</i>,</b> Principal Architect: Marina Tabassum Architects

**Parallel Technical Sessions IV (A-F)**

Time: 11:30 am – 1:00 pm

<b>Session IV (A)</b> <b>Day 2:</b> Friday, 25 April 2025 <b>Room No:</b> 201, IICT, SUST <b>Reporting Time:</b> 11:20 am (all presenters)	<b>Theme:</b> Water Resources Engineering <b>Time:</b> 11:30 am – 01:00 pm <b>Chair:</b> Prof. Dr. Muhammad Azizul Hoque, Honorable VC (acting), Dr. Momtaz Begum University of Science and Technology, Kishoreganj, Bangladesh. <b>Moderator:</b> Prof. Dr. Bijit Kumar Banik, Dept. of CEE, SUST.
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Time	Paper ID	Titles/ Authors
11:30 – 11:45	164	<b>Evaluating Open-Source Satellite-Based Rainfall Estimation Models for Hydro-meteorological Studies in Chattogram Metropolitan Area</b> Kazi Mushfique Mohib, Raisul Bari Shifat, Purnima Das, Tirtha Karmaker, Muhammad Junaid Bhuiyan, Asif Mohammed Zaman
11:45 – 12:00	193	<b>Numerical Investigation of Erosion near Riverbank and Its Mitigation through Groyne Placement in a Meandering Channel.</b> Md Mehedi Hasan, Afsana Akter, Anikuzzaman, M. Alauddin, Md. Zakir Hasan, Md. Riajul Islam, Md. Rashed Morshed
12:00 – 12:15	281	<b>Spatial Analysis of Surface Water and Ground Water Quality of an Urbanized Watershed using ArcGIS.</b> Sayanti Kanungo, Hridoy Saha Mrinmoy, Aysha Akter, Mir Tawsif Sultan
12:15 – 12:30	651	<b>Design and Operational Performance of FSTP-3: Addressing Fecal Sludge Management Challenges in the Rohingya Refugee Camp.</b> Syed AL Rahat, Md. Riaz Hossain, Abdus Samad Khondaker, Abdullah Al Mamun
12:30 – 12:45	768	<b>Assessing Community Resilience to Water Logging and Public Perception Towards Stormwater Management in Rajshahi City, Bangladesh.</b> Borsha Ghosh, Kausar Jaman, Masuma Mehjabin, Nafiz Al Mamun, Dulal Sarker, Muhaiminul Islam
12:45 – 01:00	774	<b>Surface Water Treatment Analysis: Performance Evaluation And Prediction Using Artificial Neural Network Modelling—A Case Study</b> Md. Misbah Uddin, Md. Abu Sayeed, Md. Wayes Sajeeb

<b>Session IV (B)</b>		<b>Theme:</b> Structural Engineering
<b>Day 2:</b> Friday, 25 April 2025		<b>Time:</b> 11:30 am – 01:15 pm
<b>Room No:</b> 203, IICT, SUST		<b>Chair:</b> Prof. Dr. Md. Altaf Hossain, Dept. of Agricultural Construction and Environmental Engineering, SAU.
<b>Reporting Time:</b> 11:20 am (all presenters)		<b>Moderator</b> Prof. Dr. Mushtaq Ahmed, Dept. of CEE, SUST.
Time	Paper ID	Titles/ Authors
11:30 – 11:45	163	<b>Effects of Jute Fiber on the Properties of Recycled Brick Aggregate Concrete.</b> Jahidul Islam, Tousif Kabir Khan, Shoeb Shahriar, Monir Hossain
11:45 – 12:00	424	<b>Comparative Investigation of the Mechanical Properties of Silica Fume Concrete made with Recycled Aggregates and Waste Tiles Aggregates.</b> Md. Ashraful Islam, Sanjida Sharmin, Md. Jubair Jakaria, Mashaur Rahman Rusho
12:00 – 12:15	498	<b>Use of Time History Analysis of Steel Frame for Enhancing Structural Health Monitoring.</b> Ashraf Seddiki Sowrob, Md. Rayhan Chowdhury, Kazi Md. Adnan, Mushtaq Ahmed
12:15 – 12:30	541	<b>A Comparative Study of RCC Coupling Wall (RCW) and Replaceable Steel Coupling Beam (RSCB) in High Rise Building.</b> Bulbul Ahmed, Md. Muhaiminul Islam, Abdullahil Muhsee, Miraz Ahamed
12:30 – 12:45	379	<b>A Supervised Machine Learning Approach to Predict the Compressive Strength of Eco-Friendly Concrete Incorporating Waste Glass Powder.</b> Abrar M. Shahariar, Iftakher Ahamed, Shuvo Dip Datta, Nahin Ahmed Chowdhury
12:45 – 01:00	613	<b>A Comparative Study of Wind Load Effects on High-Rise RC Building for International Wind Codes with Bangladesh National Building Code.</b> Iftia Rahman Minha, Md Abu Sufian, T. K. Das, S. Ahmed, M. J. B. Alam <sup>3</sup>

01:00 – 01:15	668	<b>Seismic Performance Evaluation of Setback Irregular RC Building by Time History Analysis.</b> Md. Esha Ahmed, Shah Jahan, Md. Nazrul Islam, Md. Jamil Mahmud Abdullah, Roman Mia, Md. Masrub Ahmmad
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<b>Session IV (C)</b> <b>Day 2:</b> Friday, 25 April 2025 <b>Room No:</b> 229, IICT, SUST <b>Reporting Time:</b> 11:20 am (all presenters)		<b>Theme:</b> Transportation Engineering <b>Time:</b> 11:30 am – 01:00 pm <b>Chair:</b> Prof. Dr. Md. Jahir Bin Alam, Dept. of CEE, SUST. <b>Moderator:</b> Ayesha Ferdous Mita, Assistant Professor, Dept. of CEE, SUST.
Time	Paper ID	Titles/ Authors
11:30 – 11:45	279	<b>Pedestrian Mid-Block Crossing Behavior on Weekends: An Observational Study in Dhaka City, Bangladesh.</b> Tanjil Rahman, Mursheda Rahman, Junaid Ahmed, Shafaeat Hasan, Paromita Sarker Turja, Pushpita Nag
11:45 – 12:00	293	<b>Assessing the Potential of Shared Mobility to Alleviate Traffic Congestion: A Traffic Survey and Simulation Study in Dhaka.</b> Ismam Hoque, Sameeha Islam, Provakor Das Surya, Bornil Debnath
12:00 – 12:15	298	<b>Identifying User Satisfaction Level of Talaimari Crossing to Katakhal Bazar Newly Transformed 6 Lane Road.</b> Siddhartha Sarkar, Asif Sadman Khan, Ragib Noor Srijan
12:15 – 12:30	477	<b>Towards a Sustainable Traffic Solution in Dhaka: A Simulation-Based Study on the Effectiveness of Exclusive Bus Lanes and Vehicle-Actuated Traffic Signal Controllers in a Mixed Traffic System.</b> Abdullah Al Asif, Moazzem Hossain
12:30 – 12:45	643	<b>Development and Evaluation of Artificial Stone for Road Construction Using Stone Dust and Iron Slag as Fine Aggregates.</b> Rafiqul Islam Babul, Md. Mahfuzun Nobi Mahim, Md. Golam Shahria Bhuyain, Jafor Ahmed Limon
12:45 – 01:00	720	<b>Enhanced Traffic Flow Forecasting on a Suburban Highway Using Empirical Mode Decomposition Preprocessed Deep Learning Model</b> Md Ausaf Alam

<b>Session IV (D)</b> <b>Day 2:</b> Friday, 25 April 2025 <b>Room No:</b> 303, IICT, SUST <b>Reporting time:</b> 11:20 am (all presenters)		<b>Theme:</b> Petroleum and Reservoir Engineering <b>Time:</b> 11:30 am – 12:45 pm <b>Chair:</b> Prof. Dr. Md. Shofiqul Islam, Dept. of PME, SUST. <b>Moderator:</b> Prof. Dr. Muhammad Abdus Salam, Dept. of CEP, SUST.
Time	Paper ID	Titles/ Authors
11:30 – 11:45	245	<b>Investigating The Effect of Injection Rate and Viscosity on Enhanced Oil Recovery in a 2D Porous Micro-Model.</b> Anzan Biswas, Md. Yousuf Ali, Mehedi Hasan, Arafat Chowdhury Atif, Muntasir Mahmud Tanvir, Md Saiful Alam
11:45 – 12:00	269	<b>Enhancement of water-based drilling fluid's lubricity by using biodegradable Taro (Colocasia Esculenta) as an additive.</b> Saidul Islam, Khanum Popi, Md Saiful Alam
12:00 – 12:15	444	<b>A Hybrid Machine Learning Framework for Real-Time Optimization of Standpipe Pressure in Drilling Operations.</b> Abu Bakker Siddique, Mahamudul Hashan, Labiba Nusrat Jahan, MD. Alamin Hossain, Md. Iftiar Uddin, Shaik Hasan Dipto

12:15 – 12:30	445	<b>Improved Total Organic Carbon Content Prediction from Conventional Well Logs: Transitioning from Empirical Models to Machine Learning Algorithms.</b> Abu Bakker Siddique, Al Minhaz Mobin Alvee, Paroma Das Ana, Mahamudul Hashan, Labiba Nusrat Jahan
12:30 – 12:45	887	<b>Extended Genetic Algorithm-Based Improved Model for Drilling Rate of Penetration (ROP) Using Mud Logging Data.</b> Mohammad Islam Miah, Mohammad Tareq Reza, Md Mizanur Rahman, Md Maruf Alam

<b>Session IV (E)</b> <b>Day 2:</b> Friday, 25 April 2025 <b>Room No:</b> 304, IICT, SUST <b>Reporting time:</b> 11:20 am (all presenters)		<b>Theme:</b> Optimization, Algorithm and Energy <b>Time:</b> 11:30 am – 01:00 pm <b>Chair:</b> Prof. Dr. Ifte Khairul Amin, Dept. of EEE, SUST. <b>Moderator:</b> Dr. Ahsan Habib, Associate Professor, IICT, SUST.
<b>Time</b>	<b>Paper ID</b>	<b>Titles/ Authors</b>
11:30 – 11:45	025	<b>High Efficiency CsGeI3 based Affordable and Eco-Friendly Perovskite Solar Cell.</b> M Hasibul Galib, Dr. Abdul Khaleque, A B M Arafat Hossain
11:45 – 12:00	512	<b>Computing Finite Binary Riordan Matrices and Their Application to the Enumeration of Posets.</b> Salah Uddin Mohammad, Md Neamul Hoque, Md Shah Noor
12:00 – 12:15	524	<b>Generating T-Way Combinatorial Test Suites Using Cat Swarm Optimization Algorithm.</b> Syed Alif Alam, Fuad Hossain
12:15 – 12:30	834	<b>Comparative Excellence of Metaheuristic Algorithms in Stochastic TSP: Navigating Partial Visibility and Dynamic Edge Weights for Disaster Management Optimization.</b> Eaoumoon Haque, Tahsinul Islam Nishat, Ragib Nadim, Noshin Saiyara Rahman, Md Fahim Al Shihab, MD. Maruf Hossain Munna, Md. Faruk Abdullah Al Sohan

<b>Session IV (F)</b> <b>Day 2:</b> Friday, 25 April 2025 <b>Room No:</b> 130, IICT, SUST <b>Reporting time:</b> 11:20 am (all presenters)		<b>Theme: Composite Material</b> <b>Time:</b> 11:30 am – 01:00 pm <b>Chair:</b> Prof. Dr. Md. Sanaul Rabbi, Dept. of ME, CUET. <b>Moderator:</b> Dr. Nuruzzaman Sakib, Assistant Professor, Dept. of ME SUST.
<b>Time</b>	<b>Paper ID</b>	<b>Titles/ Authors</b>
11:30 – 11:45	154	<b>Mechanical Properties Evaluation of Egg-shell and Rice Husk Based Aluminium Composites.</b> Md. Sazzad Forhad, Md. Rafiquzzaman
11:45 – 12:00	159	<b>Natural Fiber and Aluminum Powder Based Polymer Composites for Engineering Application.</b> Laila Nahar, Md. Rafiquzzaman
12:00 – 12:15	456	<b>Investigation of Flexural Properties of Glass Fiber Epoxy Composites Incorporating Tea Waste Filler.</b> Tahammul Islam Ibon, Aniruddha Roy Protya
12:15 – 12:30	472	<b>Study of Cadmium (Cd) Incorporated Amorphous Tin Oxide (SnO<sub>2</sub>) Thin Film, An Approach of Investigating Microstructural, Morphological and Optical Properties.</b> Md.Minhajul Islam, Mustafa Nafis Jahangir, Fahim Shariar, Md. Mahfujul Hasan, Md. Mintu Ali, Md. Humayan Kabir



12:30 – 12:45	572	<b>Impact of Ply Number and Angle on Stress Distribution in Carbon Fiber Composite Pressure Vessels Using Finite Element Analysis.</b> Md Mafidul Islam, Chaitee Das, Zabir Al Nahian
12:45 – 01:00	605	<b>Nickel-Enhanced Brass Composites: Impact on Mechanical Strength and Microstructure.</b> Kazi Hossain, Md. Nafeez Hasnat, Golam saklayen, Fahim Abrar Nabil

**Prayer & Lunch Break**

**01:00 pm - 02:30 pm**

<b>Plenary Session III (IICT Building, SUST)</b>	
<b>Track 1: Invited speech I</b> Time: 2:30 pm – 3:00 pm <b>Chair:</b> Prof. Dr. Md. Misbah Uddin, Dept. of CEE, SUST. <b>Room:</b> Gallery 2 (Ground floor)	<b>Options for Sustainable Flood Management in the Northeast Region of Bangladesh, including Sylhet City, <i>S M Mahbubur Rahman</i>,</b> Executive Director, Institute of Water Modelling ( <i>IWM</i> ), Dhaka, Bangladesh
<b>Track 2: Invited speech II</b> Time: 2:30 pm – 3:00 pm <b>Chair:</b> Prof. Dr. Md. Saiful Alam, Dept. of PME, SUST. <b>Room:</b> 229 (First floor)	<b>Strategy to Address the Challenges in the Energy Sectors in Bangladesh, <i>Prof. Dr. Md. Anwar Hossain Bhuiyan</i>,</b> Department of Geology, Dhaka University, Dhaka, Bangladesh.
<b>Track 3: Invited speech III</b> Time: 2:30 pm – 3:00 pm <b>Chair:</b> Prof. Dr. Mohammad Iqbal, Dept. of IPE, SUST. <b>Room:</b> Virtual Classroom (First floor)	<b>IoT Based Solutions for Smart Agriculture: An Indian Perspective, <i>Prof. Dr. Sudipta Roy</i>,</b> Department of Computer Science & Engineering, Triguna Sen School of Technology, Assam University, Assam, India
<b>Track 4: Invited speech IV</b> Time: 2:30 pm – 3:00 pm <b>Chair:</b> Prof. Dr. A. M. Sarwaruddin Chowdhury, Vice-Chancellor, SUST. <b>Room:</b> Gallery 1 (Ground floor)	<b>Reliability of Miniaturized Fine Pitch Semiconductor Packages, <i>Prof. Dr. A. S. M. A. Haseeb</i>,</b> Department of Nanomaterials and Ceramic Engineering, Bangladesh University of Engineering and Technology (BUET), Dhaka, Bangladesh

**TOUR**

**Tea Garden Tour (3:00-7:00 pm)**



Hotel Star Pacific  
982, East Dargah Gate, Sylhet-3100.  
(7:00 - 10:00 pm)

Day 3: Saturday, 26 April, 2025

**Parallel Technical Sessions V (A-F)**

Time: 9:00 am – 10:30 am

<b>Session V (A)</b> <b>Day 3: Saturday, 26 April 2025</b> <b>Room No: 201, ICT, SUST</b> <b>Reporting time: 08:50 am (all presenters)</b>		<b>Theme: Disaster Management &amp; Climate Studies</b>
<b>Time</b>	<b>Paper ID</b>	<b>Titles/ Authors</b>
09:00 – 09:15	033	<b>From Risk to Resilience: Combating Disasters in Bangladesh Through a Framework for Sustainable Development.</b> Raiyan Rabab, Israt Jahan Aishe
09:15 – 09:30	237	<b>A Complementary Study on ETCCDI Climate Indices Using Machine Learning Algorithms: A Case Study in Bangladesh.</b> A R M Kamruzzaman, Mehedi Hasan Bhuiyan, Shabbir Ahmed Osmani, Jafor Ahmed Limon
09:30 – 09:45	262	<b>Identifying Geospatial Factors Affecting Urban Heat Island (UHI) Intensity for Dhaka, Narayanganj, and Gazipur District: A Case Study.</b> Md. Azman Ullah Khan, Raisul Bari Shifat, Md. Mahmudul Hasan, Tirtha Karmaker
09:45 – 10:00	284	<b>Exploring The Role of Structural Social Capital on Strengthening Community Resilience to Climate Change-Induced Drought in Northwestern Bangladesh.</b> Md. Shakil Ar Salan, Md. Abdul Wakil
10:00 – 10:15	286	<b>A Remote Sensing-Based Analysis of Nighttime Light Pollution and Its Regional Spillover Effects in Dhaka.</b> Imtiaj Iqbal Mahfuj, Nawreen Ferdous Tamim, Towfiqur Rashid, Md. Sabbir Hossain, Md. Abdullah Al Amin, Md. Mehedi Hasan
10:15 – 10:30	738	<b>Identification of Land Cover Changes of the Tanguar Haor over the Last 40 Years Using Landsat Satellite Image in GIS.</b> Md. Deluar Hossen Rumon, Shakibul Islam, Sumaiya Afroj

<b>Session V (B)</b> <b>Day 3:</b> Saturday, 26 April 2025 <b>Room No:</b> 203, ICT, SUST <b>Reporting time:</b> 08:50 am (all presenters)		<b>Theme:</b> Structural Engineering <b>Time:</b> 9:00 am – 10:30 am <b>Chair:</b> Prof. G. M. Sadiqul Islam, Department of Engineering, CUET. <b>Moderator:</b> Mohaiminul Haque, Assistant Professor, Dept. of CEE, SUST.
Time	Paper ID	Titles/ Authors
09:00 – 09:15	205	<b>Synergistic Effects of Eggshell Powder and Calcium Oxide in Developing Sustainable Concrete.</b> Samiha Hussain, Shariful Islam, Md. Al-Mamun
09:15 – 09:30	216	<b>Strength Characteristics of Sustainable Concrete Utilizing Waste Ceramic Aggregate Materials.</b> Mithun Chakrabarty, Md. Robiul Awall, Soumyadip Maitra, Mrinmoy Sanyal Joy
09:30 – 09:45	256	<b>Effect of Ladle Refined Furnace Slag on the Properties of Self-Compacting Concrete Made of Brick Aggregates.</b> Banna Das, Rain Man Raja, Md. Farhan Shahriar, Md. Rakib Hossain
09:45 – 10:00	342	<b>Properties of Brick Aggregate Concrete Containing Plastic Waste as a Partial Replacement of Fine Aggregates.</b> Md. N. Alam, Md.A Noaman, Md. K. H. Kawsar, Md. A. Saleh, Md. R. Karim
10:00 – 10:15	421	<b>Numerical Investigation of CFRP Strengthened RC Beam under Three Point Bending Test Following BNBC 2020 Guidelines – A Study on Variable CFRP Sheet Thickness.</b> Mohd. Ehshanul Haque, Abdul Khalik Fahim, Mushtaq Ahmed
10:15 – 10:30	515	<b>Deep Learning-Based Crack Detection in Chloride-Affected Concrete Structures.</b> Md Sayful Islam, Mayaz Uddin, Md Titumir Hasan

<b>Session V (C)</b> <b>Day 3:</b> Saturday, 26 April 2025 <b>Room No:</b> 229, ICT, SUST <b>Reporting time:</b> 08:50 am (all presenters)		<b>Theme:</b> Transportation Engineering <b>Time:</b> 9:00 am – 10:30 am <b>Chair:</b> Prof. Dr. Md Bashirul Haque, Dept. of CEE, SUST. <b>Moderator:</b> Md. Aminul Islam, Assistant Professor, Dept. of CEE, SUST.
Time	Paper ID	Titles/ Authors
09:00 – 09:15	323	<b>A study on user preference facilities of Dhaka elevated expressway for transportation system management.</b> Tanjil Rahman, Paromita Sarker Turja, Md Humayan Kabir, Mursheda Rahman
09:15 – 09:30	617	<b>Shifting of Human Settlement Due to River Bank Erosion at the Left Bank of Jamuna River in Chouhali, Sirajganj.</b> Md. Majadur Rahman, Ranjan Kumar Das, Jakaria Pervez
09:30 – 09:45	783	<b>Seasonal Impacts on National Highway Crashes in Bangladesh.</b> Fariha Nazneen Tisha, Armana Sabiha Huq
09:45 – 10:00	792	<b>iRAP Road Safety Assessment Along R780 Highway (Navaron-Baghachra-Kolaroa Highway) in Satkhira.</b> Afsana Akter, Md. Abu Siam, M. Afzal Hossain, Mahiman Zinnurain, Md. Mizanur Rahman
10:00 – 10:15	808	<b>Traffic Impact Assessment of M.A.Mannan flyover at Bahaddarhat Intersection.</b> Rakibul Subo, Md. Nazmus Sakib Aupi, Sanzida Sultana
10:15 – 10:30	823	<b>Factors Influencing Mode Choice for Trip Makers Between Gazipur and Dhaka: An Analytical Study.</b> Md. Kamrul Hasan Kawsar, Md. Jamil Mahmud Abdullah, Md. Shaharul Islam, Mahiman Zinnurain, Rakibul Hasan

<b>Session V (D)</b> <b>Day 3:</b> Saturday, 26 April 2025 <b>Room No:</b> 303, IICT, SUST <b>Reporting time:</b> 08:50 am (all presenters)		<b>Theme:</b> Separation Technology <b>Time:</b> 9:00 am – 10:45 am <b>Chair:</b> Prof. Dr. Mohammed Mastabur Rahman, Dept. of CEP, SUST. <b>Moderator:</b> Prof. Dr. Md. Saiful Alam, Dept. of PME, SUST.
Time	Paper ID	Titles/ Authors
09:15 – 09:30	365	<b>Evaluation of Pure Culture Polyhydroxyalkanoates (PHA) Production from Hydrolyzed Sucrose.</b> Joyee Saha, Titly Ahmed, Lina Rafi Taposhi, Md Salatul Islam Mozumder
09:30 – 09:45	517	<b>Green Production of Lactic Acid from Captured Carbon Dioxide Using an Integrated Fermenter Membrane Separation Process.</b> Al-Amin Mollik, Synthia Tabassum, Mohammad Shaiful Alam Amin, Md Salatul Islam Mozumder
09:45 – 10:00	536	<b>Enhancing Supercapacitor Performance Using Cr(III)-adsorbed Activated Carbon: A Thermal Treatment Perspective.</b> Sadman Sakib Reemel, Maliha Mokarrama, Azhar Uddin Shehab, Ahmed Shakibul Islam, Md Tamez Uddin, Muhammad Zobayer Bin Mukhlsh
10:00 – 10:15	585	<b>Experimental Comparison of Reverse Osmosis, Household filters and Hybrid Filtration Systems for Removing Heavy Metals and Microbial Pathogens.</b> Ashraf Islam Ashfaq, Most. Mobassara Jannat, Abdullah Al Mahmood
10:15 – 10:30	751	<b>Batch Adsorption of Basic Dye onto a Biosorbent: Equilibrium, Kinetic, and Thermodynamic Studies.</b> Mohammad Monirul Hasan Kowsar, Al Noman and Md Tamez Uddin
10:30 – 10:45	939	<b>Degradation of Textile Dye Using GO-TiO<sub>2</sub> Photocatalytic Membrane.</b> S.M. Shafakatul Islam, Asif Mahmood Rafi, Sadman Sakib Asif, Subah Tasnim Shashi, Mohammad Shaiful Alam Amin,

<b>Session V (E)</b> <b>Day 3:</b> Saturday, 26 April 2025 <b>Room No:</b> 304, IICT, SUST <b>Reporting time:</b> 08:50 am (all presenters)		<b>Theme:</b> IoT and Security <b>Time:</b> 9:00 am – 10:30 am <b>Chair:</b> Prof. Dr. Sudipta Roy, Dept. of CSE, Assam University, India. <b>Moderator:</b> Prof. Dr. Md Forhad Rabbi, Dept. of CSE, SUST.
Time	Paper ID	Titles/ Authors
09:00 – 09:15	615	<b>An IoT-Driven System for Real-Time Weather Data Generation and Short-Term Forecasting Using Machine Learning Approaches.</b> Ahmed Thawhid Sabit, Bishal Roy, Syed Abu Safwan, Rayhan Ahmed Opi, Md. Shahid Iqbal
09:15 – 09:30	658	<b>Securing Government Communication Networks: Preventing Phishing Attacks on High Level Officials.</b> Md Sakib Hossan Samad
09:30 – 09:45	787	<b>Hybrid Machine Learning Framework for Phishing URL Detection with Advanced Feature Engineering.</b> Sourav Datto, Md Lutful Kabir, Mustakim Ahmed, Kazi Redwan, Md. Faruk Abdullah Al Sohan, Khondaker Ifti Hasan Turjo
09:45 – 10:00	877	<b>A Deep Neural Network Approach for Highly Efficient Lightning Prediction and Warning Systems.</b> G.M. SIFAT IQBAL, Sakib Ahmed), Mamunur Rashid Mamun
10:00 – 10:15	804	<b>E-DRONE (Emergency-Drone Rescue Operation and Networked Environment): IoT-Based Information Relay System for Disaster</b>

		<b>Response.</b> Nusaiba Binte Habib, Ayesha Siddika, Sadman Mihad, Mahnaj Mou, Masud Rana, Dipta Talukder
10:15 – 10:30	849	<b>The Trends and Interrelationships of Cybercrimes: Analyzing the Decline of Cyberbullying and the Rise of Other Cybercrimes in Recent Years.</b> Abida Afrin, Koushik Biswas Arko, Sadia Afrin, Md. Mortuza Ahmmed

<b>Session V (F)</b> <b>Day 3:</b> Saturday, 26 April 2025 <b>Room No:</b> 130, IICT, SUST <b>Reporting time:</b> 08:50 am (all presenters)		<b>Theme:</b> Mechanical Engineering (Multidisciplinary) <b>Time:</b> 9:00 am – 10:30 am <b>Chair:</b> Prof. Dr. Engr. Mohammad Iqbal, Dept. of IPE, SUST. <b>Moderator:</b> Prof. Chowdury Md Luthfur Rahman, Dept of IPE, SUST.
Time	Paper ID	Titles/ Authors
09:00 – 09:15	084	<b>Development and Testing of a Locally Manufactured Forestation Robot for Enhanced Seeding Efficiency in Bangladesh.</b> Avishek Chowdhury, Atia Ashrafy, Iltimas Wasek, Kaifa Samsad Shaan
09:15 – 09:30	775	<b>Promoting Sustainable Tourism in the Haor Regions of Bangladesh by Using Latest Technology and Innovation.</b> Amit Das, Md. Abdul Hamid
09:30 – 09:45	838	<b>Evaluating Sustainability Risks in Global Supply Chains Using MCDM Techniques.</b> Avijeet Saha Tonmoy, Suneet Malakar, Md. Imtiaz Kabir Niloy, Arafat Chowdhury, Dipayan Saha Dip, Md. Sanowar Hossain
09:45 – 10:00	886	<b>Simulation And Control Of 7 DoF Manipulator For An Industrial Plant Using Ros.</b> Shishir Das, Avishek Talukder, Tasmia Binte Hai, Imnul Haque Ruman Talukder
10:00 – 10:15	897	<b>Numerical Investigation of Diffusion Bonded Joints Using Finite Element Method.</b> Mir Anjirin Tazrin, Md. Shahidul Islam, Rittika Ghosh, Md. Imran Hosen
10:15 – 10:30	898	<b>Numerical Analysis of Stress Concentration for Shoulder Filleted Shaft Factor with Relief Groove under Tensile Loading Condition.</b> Md Hosen, Md. Shahidul Islam, Mir Anjirin Tazrin, MD Raihan Jommadder



**Tea Break**  
**10:30 am - 10:45 am**

### Parallel Technical Sessions VI (A-F)

Time: 10:45 am – 12:45 pm

<b>Session VI (A)</b> <b>Day 3:</b> Saturday, 26 April 2025 <b>Room No:</b> 201, IICT, SUST <b>Reporting time:</b> 10:35 am (all presenters)		<b>Theme:</b> Water Resources Engineering <b>Time:</b> 10.45-12.30 <b>Chair:</b> Dr. Tajmunnaher, Associate Professor, Dept. of CEE, SUST. <b>Moderator:</b> Nusrat Jahan Ekra, Lecturer, Associate Professor, Dept. of CEE, SUST.
Time	Paper ID	Titles/ Authors

10:45 – 11:00	181	<b>Assessing Social Inequities in Groundwater Pricing: Economic and Participatory Insights from the Barind Tract, Bangladesh.</b> Md Sakib Zubayer, Muhaiminul Islam, Lamia Ferdous, Zahin Momtaz
11:00 – 11:15	344	<b>Comparative Evaluation and Principal Component Analysis of Water Quality Index for Selected Rivers.</b> Jannatul Moua Shaba, Asif Sadat, Raiyan Ferdous Chowdhury, Md Ruyel Miah, Iftekhar Anam
11:15 – 11:30	415	<b>Challenges and Opportunities for Implementing Rooftop Solar in Dhaka's Residential Sector.</b> Mosaraf Hosan Nishat, Abrar Labib, Nafiz Mahmud Khan, Sidratul Muntaha, Ali Ahnaf Abid Mayukh
11:30 – 11:45	427	<b>Potential Rainwater Harvesting Zoning for the Chittagong Hill Tracts.</b> Md. Abdur Rahaman Fahim, Aysha Akter
11:45 – 12:00	459	<b>Assessment of the Existing Condition of Sustainable Development Goals 6.1 and 6.2 in Rural Areas of Sylhet, Bangladesh.</b> Rafiqul Islam Babul, Bijit Kumar Banik
12:00 – 12:15	519	<b>Assessment of Surface Water Quality Dynamics Using Google Earth Engine around Srihatta Economic Zone, Bangladesh.</b> Zahid Imtiaz, Rana Hamid, Mehedi Hasan, Maruf Ahmed
12:15 – 12:30	692	<b>Using EPANET, the Design and Analysis of the Water Distribution System for Arambag and Baluchor in Sylhet City.</b> Md. Ali Hasan, Dipangkar Singha Anik, Yeasin Arafat , S. Ahmed, and J. B. Alam

<b>Session VI (B)</b>		<b>Theme:</b> Disaster Management & Climate Studies
<b>Day 3:</b> Saturday, 26 April 2025		<b>Time:</b> 10:45 am – 12:45 pm
<b>Room No:</b> 203, ICT, SUST		<b>Chair:</b> Prof. Dr. Ahmad Hasan Nury, Dept. of CEE, SUST.
<b>Reporting time:</b> 10:35 am (all presenters)		<b>Moderator:</b> Dr. Shabbir Ahmed Osmani, Assistant Professor, Dept. of CE, Leading University, Sylhet.
<b>Time</b>	<b>Paper ID</b>	<b>Titles/ Authors</b>
10:45 – 11:00	011	<b>Windstorm Vulnerability Assessment of Buildings in Sylhet City, Bangladesh.</b> Amit Chando Sagor, Mushtaq Ahmed, Najmin Tamanna Bonna, Sananda Das
11:00 – 11:15	014	<b>Indigenous Resilience and Adaptation to Climate Change in Rangamati, Bangladesh: A Survey-based Study.</b> Sumaya Tabassum, Md. Sultanul Islam, L.C Roy
11:15 – 11:30	016	<b>Machine Learning-Based Cyclone Tracking: A Computationally Efficient Alternative for Disaster Preparedness in Bangladesh.</b> Abu Sadat Md Saim, Ahmad Hasan Nury
11:30 – 11:45	436	<b>Sustainable Bricks from Lime and Steel Slag: A Study on Mechanical Properties.</b> Shayla Sharmin, Lutful kabir Utsha, Alaf Saiedatun Mila
11:45 – 12:00	568	<b>Exploring Sustainable and Economic Solutions for Cool Roof Based on Experimental Setup in a Controlled Environment.</b> Md Bashirul Haque, Md Aminul Islam, H M A Mahzuz, MD Nazmus Saleyhin, Nayeemur Rahman
12:00 – 12:15	451	<b>Hydrogeological Investigation of Ground Water for Pharmaceutical Use in Kaliakor-Gazipur.</b> Md. Aminul Haque, Nobonur Hasan
12:15 – 12:30	463	<b>A Comprehensive Study on Water Logging in Rajshahi City Corporation.</b> Abdullahil Muhsee, Md. Emadul Islam, Rafatul Islam, Bulbul Ahmed, Anupam Chowdhury and Md. Sohel Rana
12:30 – 12:45	631	<b>A Concise Review on Applications of Fiber-Reinforced Polymer in Construction as an Eco-Friendly and Sustainable Component: Bangladesh and Global Perspective.</b> Tahmidur Rahman, Aqib Mahmood, Jannatul Hasnat Apurbo, Muhaiminul Islam Alim

<b>Session VI (C)</b> <b>Day 3:</b> Saturday, 26 April 2025 <b>Room No:</b> 229, IICT, SUST <b>Reporting time:</b> 10:35 am (all presenters)		<b>Theme:</b> Structural Engineering <b>Time:</b> 10:45 am – 12:30 pm <b>Chair:</b> Prof. Dr. Mushtaq Ahmed, Dept. of CEE, SUST. <b>Moderator:</b> Prof. Dr. Md Bashirul Haque, Dept. of CEE, SUST.
<b>Time</b>	<b>Paper ID</b>	<b>Titles/ Authors</b>
10:45 – 11:00	060	<b>Mechanical and Durability Aspects of Abaca Fiber-Reinforced Concrete with Fly Ash.</b> Md. Shah Jamal, Most. Shuborna Khatun, Md. Rezoan Badsha, Nabila Islam Shorna
11:00 – 11:15	142	<b>Numerical Study of Irregular Structures Subjected to Incident Seismic Vibration at Various Incident Angles and Soil-Structure Interaction.</b> Mohammad Sabbir Rahman, Seikh Arif Istiak, Md. Nazmul Haque, Md. Shahlan Kabir
11:15 – 11:30	469	<b>Assessment of Mechanical and Durability Properties of Concrete with Glass Powder as Supplementary Cementitious Material.</b> Piyas Das, Md. Maruf Molla, Ankon Podder, Md Moinuzzaman, Nahida Islam Midula
11:30 – 11:45	484	<b>Performance of Lathe Fiber Reinforced Concrete Exposed to Chloride Solution.</b> Most. Shuborna Khatun, Md. Shah Jamal, Md. Rezoan Badsha, Arafat Islam Apurba, Akram Mahmud Tushar
11:45 – 12:00	560	<b>Evaluation of Concrete Strength by Using Fly Ash and Brick Kiln Ash as a Partial Replacement for Cement.</b> Syeda Tamzida Akter, Debashish Biswas, Aprita Debnath, Md. Basir Zisan
12:00 – 12:15	603	<b>Effects of Partial Replacement of Stone Chips by Brick Aggregates on the Mechanical Properties of Self-Compacting Concrete.</b> Robiul Islam, Anaeath Ullah, Rabiul Islam, Afsana Akter, Md. Abdus Salam
12:15 – 12:30	706	<b>Strength-Ductility Behavior of Shear Wall Using Nonlinear Layered Shell Elements.</b> Farhan Khan, Khaled Mohammad Shourov, Tahsin Reza Hossain

<b>Session VI (D)</b> <b>Day 3:</b> Saturday, 26 April 2025 <b>Room No:</b> 303, IICT, SUST <b>Reporting time:</b> 10:35 am (all presenters)		<b>Theme:</b> Nanoscience and Nanotechnology <b>Time:</b> 10:45 am – 12:45 pm <b>Chair:</b> Prof. Dr. Md Akhtarul Islam, Dept. of CEP, SUST. <b>Moderator:</b> Prof. Dr Md Mostafizur Rahman, Dept. of CEP, SUST.
<b>Time</b>	<b>Paper ID</b>	<b>Titles/ Authors</b>
10:45 – 11:00	051	<b>Hydrocracking of polypropylene and polystyrene to fuel components using Co-ZSM-5 catalyst.</b> Maria Jahan Mim, Md. Yeasir Arafat, Muhammad Abdus Salam, Mohammad Rakib Uddin
11:00 – 11:15	153	<b>Synthesis and Characterization of Polyaniline-Carbon nanofiber Based Ternary Nanocomposites for Supercapacitor Applications.</b> Arna Dey, Dipannita Paul Dipa, Durjoy Sarker Tirtha, Abdul Momin, Mohammed Mastabur Rahman
11:15 – 11:30	428	<b>Synthesis and Characterization of Polyaniline-Graphene Oxide Based Ternary Nanocomposites for Supercapacitor Applications.</b> Sabrina Sultana, Abdul Momin, Arna Dey, Tawhid Rahman, Mohammed Mastabur Rahman
11:30 – 11:45	715	<b>An Efficient Sunlight-Activated CdS-CdSe Heterostructure Nanocomposites for Enhanced Photocatalytic Degradation of</b>

		<b>Organic Pollutants.</b> Md. Ismot Hossain Al Mobin, Kaysar Hamid, Md. Zahangir Alam, Shubendu Das Abir, Azhar Uddin Shehab, Muhammad Zobayer Bin Mukhlish, Md. Tamez Uddin
11:45 – 12:00	719	<b>Enhanced antibacterial efficacy of carbon quantum dots-based metal complexes: a simple strategy against pathogenic microbes.</b> Md. Dipu Malitha, Md. Tamzid Hossain Molla, Prapti Biswas, Ajit Mondal, Anoy Chowdhury, Md Sabbir Ahmed, Nonigopal Chandro Ray, Md. Shameem Ahsan
12:00 – 12:15	721	<b>Exploring The Role of Reducing Agents in Synthesizing CdS/MoS<sub>2</sub> Nanocomposites for Unveiling Multifunctional Potential in Energy and Environmental Applications.</b> Kaysar Hamid, Md. Zahangir Alam, Md. Ismot Hossain Al Mobin, Shubendu Das Abir, Muhammad Muheus Sunnah, Md. Tamez Uddin, Muhammad Zobayer Bin Mukhlish
12:15 – 12:30	727	<b>RuO<sub>2</sub>-Modified Polyaniline: A Multifunctional Material for Enhanced Supercapacitor Performance and Hydrogen Evolution Reaction.</b> Shubendu Das Abir, Kaysar Hamid, Md. Ismot Hossain Al Mobin, Md. Zahangir Alam, Mustafizur Rahman, Md. Tamez Uddin, Muhammad Zobayer Bin Mukhlish
12:30 – 12:45	741	<b>Synthesis and Characterization of Sun-light Activated TiO<sub>2</sub>/CdS Nanocomposite for Enhanced Photocatalytic Degradation of Organic Pollutants.</b> Md. Zahangir Alam, Kaysar Hamid, Md. Ismot Hossain Al Mobin, Shubendu Das Abir, Md. Tamez Uddin, Abdullah Al Mahfuz

<b>Session VI (F)</b>		<b>Theme:</b> Material Science II
<b>Day 3:</b> Saturday, 26 April 2025		<b>Time:</b> 10:45 am – 12:45 pm
<b>Room No:</b> 130, ICT, SUST		<b>Chair:</b> Prof. Dr. Md. Abu Hayat Mithu, Dept. of IPE, SUST.
<b>Reporting time:</b> 10:35 am (all presenters)		<b>Moderator:</b> Prof. Dr Muhammad Zobayer Bin Mukhlish, Dept. of CEP, SUST.
<b>Time</b>	<b>Paper ID</b>	<b>Titles/ Authors</b>
10:45 – 11:00	227	<b>Investigation of Physical Properties of TlZnCl<sub>3</sub> Halide Perovskite using Density Functional Theory.</b> Tasmi Akter, Fahmida Rubaiya, Rifat Ara Alam
11:00 – 11:15	351	<b>Optimizing Ceramic Body Properties with a Waste Blend of Sugarcane Bagasse and Coconut Shell Ash.</b> Md Estabrak Ahammod Sakib, Md. Lael Hasan, Md. Farhan Muskan, Hridoy Roy, Hasibur Rahman Naim, Md. Mintu Ali
11:15 – 11:30	467	<b>Exploring High-Entropy Alloys (HEAs): Theoretical Insights into Phase Stability and Mechanical Properties.</b> Md. Abtahi Fahim
11:30 – 11:45	655	<b>Chemical Analysis and Extraction of Magnesium and Silicon from Dolomite: A Sustainable Approach for Industrial Applications.</b> Muhmanin Mahmud Nayan Nayan, Askar Ibnay Zayed Zayed, Md. Jahidur Rahman Molla Molla, Fahim Al Rakib Rakib
11:45 – 12:00	891	<b>First-Principles Investigation of Structural, Electronic, and Optical Properties of ZnCr<sub>2</sub>O<sub>4</sub> Using DFT with Hubbard Corrections.</b> Muhammad Faruk, Didarul Islam, Abdul Wahid Chowdhury
12:00 – 12:15	893	<b>Fresh properties of nano-silica gel-induced cementitious media.</b> Bakul Barua, G. M. Sadiquul Islam
12:15 – 12:30	905	<b>Investigation of Physical, Structural, Mechanical, and Antimicrobial Properties of Commercial Hydroxyapatite and Scandium Stabilized Zirconia doped Hydroxyapatite Composite as Biomaterials.</b> MD



		Shamimur Rahman Shanto, Asifur Rahman Sakib, Md. Mostafa Kamal, Md. Bakhtierkhalzi
12:30 – 12:45	949	<b>Synthesis and Characterization of Hydrophobic Nano Silica-Based Self-Cleaning Coating from Wasted Glasses.</b> Ashrafur Kanzan Saumik, Khalid Hasan Bhuiyan Choyan, Muhammad Aminul Islam

**Prayer & Lunch Break**  
12:45 pm — 02:00 pm

**Parallel Technical Sessions VII (A-F)**

Time: 2:00 pm – 3:30 pm

<b>Session VII (A)</b> <b>Day 3:</b> Saturday, 26 April 2025 <b>Room No:</b> 201, IICT, SUST <b>Reporting time:</b> 01:50 pm (all presenters)		<b>Theme:</b> Environmental Engineering <b>Time:</b> 2:00 pm – 3:30 pm <b>Chair:</b> Prof. Dr Md Akhtarul Islam, Dept. of CEP, SUST. <b>Moderator:</b> Md. Nazmul Islam Rafi, Lecturer, Dept. of CEE, SUST.
<b>Time</b>	<b>Paper ID</b>	<b>Titles/ Authors</b>
02:00 – 02:15	180	<b>Reducing False Alarms in Buildings with UAV-Based Fire Detection and Monitoring through a Cloud-Integrated Approach.</b> Estiak Ahmed, Alinda Bhattacharjee, Afia Anzum
02:15 – 02:30	235	<b>A Review on Zinc Based Nano Particles Coating on Façade for Fire Retardant.</b> Faria Islam, Mehedi Hasan, Manzura A. Zereen, Md. Mustakim
02:30 – 02:45	261	<b>Liquefaction Hazard Estimation Over the Built-up Areas of Chattogram Metropolitan.</b> Samia Jahan, Nishat Salsabil, Nazia Jahan, Opu Chandra Debanath, Md. Aftabur Rahman
02:45 – 03:00	527	<b>Advances in Chromium Removal Methods from Tannery Effluents: A Review.</b> Md Mohsin, Md Mojob Ali
03:00 – 03:15	641	<b>Emerging Trends in Structural Engineering for Disaster-Resilient Buildings.</b> Shafayet Rahman
03:15 – 03:30	831	<b>Factors Contributing to Health Risks Among Disaster-Induced Migrants: A Case Study of Khulna.</b> Khondoker Mahmud Parvez, Dr. Md. Shahjahan Ali
03:30 – 03:45	858	<b>Study on Drainage System of Road Pavement in Faridpur Municipality.</b> Md. Sabbir Hasan Monir, Shekh Kamal, Md Zahidul Islam Rakib

<b>Session VII (B)</b> <b>Day 3:</b> Saturday, 26 April 2025 <b>Room No:</b> 203, IICT, SUST <b>Reporting time:</b> 01:50 pm (all presenters)		<b>Theme:</b> Environmental Engineering <b>Time:</b> 2:00 pm – 3:30 pm <b>Chair:</b> Prof. Dr. Gulam Md. Munna, Dept. of CEE, SUST. <b>Moderator:</b> Nusrat Jahan Ekra, Lecturer, Dept. of CEE, SUST.
<b>Time</b>	<b>Paper ID</b>	<b>Titles/ Authors</b>
02:00 – 02:15	255	<b>A Burning Imperative for Change a Strategic Roadmap for Strengthening Dhaka's Defenses Against Fire.</b> Tanzilla Ahmed Lamia,

		A.K.M. Monoarul Huda, Rezwana Tabassum, Md. Asibul Islam Piash, Nusrat Jahan, Irin Sultana
02:15 – 02:30	352	<b>Effect of SikaLatex® Power and Sika Plast-204 TH on the Compressive Strength of Concrete.</b> Md. Nur Alam Riad, Md. Abdul Kuddus, Shariar Hassan, Suman Mandal
02:30 – 02:45	575	<b>Assessing the Ecological Hazards of Microplastic Pollution in the Rupsha River, Khulna.</b> Rafia Rouf, Tanveer Tausif, Nishat Tasnim
02:45 – 03:00	621	<b>Performance Analysis of Coupling Wavelet Transform and Machine Learning Models for Predicting Niño 3.4.</b> Shabbir Osmani, A R M Kamruzzaman, Naimul Islam, Mehedi Hasan Bhuiyan, Abdullah Md. Omar
03:00 – 03:15	681	<b>A Comparative Study of Activated Carbon on Sources, Production Techniques and Applications.</b> Nowrose Sharmin, Syed Arif Mahabub, Syed Abdul Mofiz
03:15 – 03:30	850	<b>Simulation and Analysis of Roof Shapes Under Tornado-Like Wind Conditions Using ANSYS Fluent: A CFD-Based Study.</b> Md Jafrul Hassan, Badhan Kumar Saha, Darus Salam Lagna, TayeebMahmud
03:30 – 03:45	908	<b>Downscaling future climate changes using SDSM under RCP scenarios in selected areas of Bangladesh.</b> Md. Mizanur Rahman, Aysha Akter

<b>Session VII (F)</b> <b>Day 3:</b> Saturday, 26 April 2025 <b>Room No:</b> 130, IICT, SUST <b>Reporting time:</b> 01:50 pm (all presenters)		<b>Theme:</b> Heat Transfer <b>Time:</b> 2:00 pm – 3:30 pm <b>Chair:</b> Prof. Dr. A M M Mukaddes, Dept. of IPE, SUST. <b>Moderator:</b> Prof. Dr. Md. Abu Hayat Mithu, Dept. of IPE, SUST
<b>Time</b>	<b>Paper ID</b>	<b>Titles/ Authors</b>
02:00 – 02:15	420	<b>Numerical Analysis on Heat Transfer Characteristics of a Shell and Tube Heat Exchanger for Waste Heat Recovery.</b> Md Ashfak Hossain, Aniruddha Roy Protya, Md. Shariful Islam, Mohammad Ariful Islam
02:15 – 02:30	460	<b>Thermal Management of Lithium-Ion Batteries with Fin-Integrated Phase Change Material: A Computational Fluid Dynamics Approach.</b> Md Mahamudul Hasan Pranto, Md Ahnaf Adit, Samiul Hasan, Ahnaf Hasan, Md Fazle Rabbi, Md Golam Kibria
02:30 – 02:45	610	<b>Experimental Investigation of One-Shell, One-Pass and One-Shell, Two-Pass Heat Exchanger Performance.</b> Golam Saklayen, Md Ragibul Islam, Bodius Salam, Kazi Rahat Hossain
02:45 – 03:00	672	<b>"Thermal Optimization via Mixed Convection in a Fin-Enhanced Decagonal Enclosure with Heated Inserts".</b> Md. Adnin Ahasan Nirob, Md. SM Abedur Rahman Azmi, Abdul All Hasib Sarker, Abdullah All Masud
03:00 – 03:15	899	<b>Numerical Study on the Heat Transfer Characteristics for Laminar Flow with Triangular Pin Fin in Arrays.</b> Joyanta Chowdhury, Shahidul Islam, Kishore Das, MD Raihan Jommadder
03:15 – 03:30	903	<b>Heat Transfer Enhancement Using Al<sub>2</sub>O<sub>3</sub> Nanofluid In A Helical Coil Tube Heat Exchanger.</b> Md Tanvir Mahmud, Md Mahbubul Alam, Nur Mohammad Mia

[Online Technical Sessions](#)



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**Day 1: Thursday, 24 April, 2025**

**Parallel Online Technical Sessions I (A-C)**

<b>Online Session I (A)</b> <b>Day 1: Thursday, 24 April 2025</b> <b>Reporting time: 01:55 pm</b>		<b>Theme:</b> Architecture <b>Time:</b> 02:00 pm – 03:00 pm <b>Chair:</b> Prof. Dr. Md. Mustafizur Rahman, Dept. of Architecture, SUST. <b>Moderator:</b> Iftekhar Rahman, Associate Professor, Dept of Architecture, SUST.
Time	Paper ID	Titles/ Authors
02:00 – 02:15	006	<b>Predictive Modeling of Wind-Induced Vulnerability and Damage in Coastal vs. Non-Coastal Buildings of Bangladesh Using the Wind Damage Band Model.</b> F. Kabir, M. Ahmed, M. Maruf, S. Sojoy, R. Ahamad
02:15 – 02:30	041	<b>Assessment of Energy Efficiency and Sustainability of Residential Buildings in Sylhet: A Bim-Based Study.</b> Md. Golam Shahria Bhuyain, Md. Shahidul Alam, Shakib Bhuiyan, H.M.A Mahzuz
02:30 – 02:45	103	<b>Predicting Vegetation Trends in Sylhet Division: An LSTM-Based Analysis of NDVI Dynamics.</b> Shovon Das, Niloy Biswas, Afifa Islam Niha, Sandip Paul
02:45 – 03:00	212	<b>Enhancing Indoor Thermal Comfort through Green Roofing Systems in Tropical Climates: In Context of Khulna, Bangladesh.</b> Hridi Paul, Dipayan Biswas, Bappi Sur, Palash Kumar Baidya

<b>Online Session I (B)</b> <b>Day 1: Thursday, 24 April 2025</b> <b>Reporting time: 01:55 pm</b>		<b>Theme:</b> Transportation Engineering <b>Time:</b> 02:00 pm – 03:45 pm <b>Chair:</b> Prof. Dr. Md. Jahir Bin Alam, Dept. of CEE, SUST. <b>Moderator:</b> Nur Md. Robiul Hoque, Assistant Professor, Dept. of CEE, SUST.
Time	Paper ID	Titles/ Authors
02:00 – 02:15	430	<b>Rigid Pavement Design Using Recycle Aggregate &amp; Ceramic Dust.</b> Md. Mizanur Rahman, Md Shahabuddin Saju, Arifur Rahman Limon
02:15 – 02:30	604	<b>Integration of NMT and Walk Facilities with Improved Bus Service.</b> Aysa Khatun Muna, M. Hossain
02:30 – 02:45	627	<b>Performance Evaluation of Bituminous Mix Using Eggshell Powder as Partial Replacement of Filler Material.</b> Sabbir Mahamud, Ismail Hossain, Azam Khan
02:45 – 03:00	659	<b>Understanding Pedestrian Crossing Preferences at Urban Mid-Blocks in Developing Nations: A Case Study in Dhaka City.</b>

		Mursheda Rahman, Israk Mahmud, Anupam Das Pranta, Md. Zuhayer Aftab Eshrak
03:00 – 03:15	717	<b>Performance Analysis of the 2 No Gate Intersection in Chittagong, Bangladesh: A Case Study of an Unsignalized All-Way-Stop-Controlled Intersection.</b> Preetom Chandra Dey, Mousmi Das, Pinal Barua, S.N Nilu
03:15 – 03:30	724	<b>Public Perception and Potential Solutions to Traffic Congestion Resulting from Roadside Commercial Activities: A Case Study of Key Locations in Chattogram City.</b> Preetom Dey, Mousmi Das
03:30 – 03:45	811	<b>Crowdsourcing Road pavement health: A People-Centric sensing approach to walkability and defect detection by AI.</b> Mahdia Rahman Orchi, Aditya Arshad Niad, Md.Rabiul Hasan, Mehedi Hasan

<b>Online Session I (C1)</b> <b>Day 1:</b> Thursday, 24 April 2025 <b>Reporting time:</b> 01:55 pm		<b>Theme:</b> Water Resources Engineering <b>Time:</b> 02:00 pm – 03:15 pm <b>Chair:</b> Prof. Dr. Mukhtarun Islam, Dept. of Irrigation and Water Management, SAU, Sylhet. <b>Moderator:</b> Md. Nazmul Islam Rafi, Lecturer, Dept. of CEE, SUST.
<b>Time</b>	<b>Paper ID</b>	<b>Titles/ Authors</b>
02:00 – 02:15		
02:15 – 02:30	442	<b>Temporal Changes in Area of Retention Ponds and Its Impact on Water Logging: A Case Study of Dhaka South City Corporation.</b> Md. Yousuf Ali Bhuiyan, Md. Monir Hossain, Mahmudul Hasan Sajid
02:30 – 02:45	499	<b>Analysis of Hydrological Influences on Sediment Dynamics: Erosion and Accretion by Using Geospatial Techniques in the Padma-Jamuna Estuary, Bangladesh.</b> Pinky Debnath, Asha Chowdhury, Sourav Das, Debasish Roy Raja
02:45 – 03:00	538	<b>Analyzing the Impact of Urban Infrastructure on Waterlogging.</b> Rana Hamid, Md Kabir Uddin Sikder, Mehedi Hasan, Zahid Imtiaz
03:00 – 03:15	777	<b>An Innovative Modified Constructed Wetland (MCW) Approach for Wastewater Treatment, Biogas Production, and Organic Fertilizer Generation in Bangladesh.</b> Md. Al Amin, Abhishek Sarkar, Samia Sarker, Rahul Chakrabarty

<b>Online Session I (C2)</b> <b>Day 1:</b> Thursday, 24 April 2025 <b>Reporting time:</b> 01:55 pm <b>Link:</b> OnlineRoom I (C2)		<b>Theme:</b> Environmental Engineering <b>Time:</b> 02:00 pm – 03:45 pm <b>Chair:</b> Prof. Dr. Bijit Kumar Banik, Dept. of CEE, SUST. <b>Moderator:</b> Nusrat Jahan Ekra, Lecturer, Dept. of CEE, SUST.
<b>Time</b>	<b>Paper ID</b>	<b>Titles/ Authors</b>
02:00 – 02:15	316	<b>Climate Change Impact on Rainfall, Temperature and Vegetation: A Spatiotemporal Analysis in Rajshahi.</b> Maria Raka, Anasua Pramanik, Israt Oyshee, Md. Rafiul Islam
02:15 – 02:30	356	<b>Evaluation of the Air Quality Index of Rajshahi City using GIS.</b> Jakaria Jaman, Mohayminul Islam, Md. Samiul Islam Sany, Juairia Mahmuda
02:30 – 02:45	393	<b>Building a Greener and Healthier Community through Urban Forestry: A case study in Upashahar, Rajshahi.</b> Rubayet Rimon, Mahajabeen Masud, Motaleb Hossain, Nishat Sharmin Joti, Sumita Roy, Muhammad Waresul Hassan Nipun

02:45 – 03:00	443	<b>Assessing Household Carbon Footprints: A Study in Khulna's Urban and Rural Settings.</b> Arraf Hossin, Jobaer Monjur, Atikur Rahman Rana
03:00 – 03:15	597	<b>Spatiotemporal Analysis of Urban Heat Island Dynamics Using Biophysical Indices over Chittagong City Corporation: A Remote Sensing-Based Approach.</b> Fatema Tuz Jahra
03:15 – 03:30	648	<b>Stabilization of Soil Using Fly Ash: A Laboratory and Machine Learning Approach.</b> Sabikun Nilu, Kamol Debnath, Shoma Gosh

<b>Online Session I (F)</b> <b>Day 1: Thursday, 24 April 2025</b> <b>Reporting Time: 2:50 pm</b> <b>Link: OnlineRoom I (F)</b>		<b>Theme:</b> Industrial and Mechanical Engineering <b>Time:</b> 3:00 pm – 4:30 pm <b>Chair:</b> Prof. Dr. A.B.M. Abdul Malek, Dept. of IPE, SUST. <b>Moderator:</b> Dr Md. Aminul Islam, Associate Professor, RUET
<b>Time</b>	<b>Paper ID</b>	<b>Titles/ Authors</b>
03:00 – 03:15	454	<b>Design and Performance Analysis of a Honeycomb-Shaped Brass Alloy Catalytic Converter for Sustainable Emission Control in 4-Stroke Engine.</b> Rahat Ullah, Md. Irfan Sadik Bhuiyan, Mohammad Abrar Jawad Chowdhury
03:15 – 03:30	733	<b>Design and Performance Evaluation of a Novel type Star-Shaped Auxetic Structure for Enhanced Energy Absorption.</b> Asma Akhter, Abdul Kader, Sazzad Hossain, Easmin Sultana, Abdul Wares
03:30 – 03:45	539	<b>Waste to Energy Conversion Using Chemical Looping Technology- A Review on Bangladesh Perspective.</b> Yasir robin, Abu Shadat Muhammad Sayem, Souman Rudra
03:45 – 04:00	509	<b>Improvement of Aerodynamic Performance of Missile with Wing and Tailfin Configuration using CFD Simulations.</b> Kazi Md Mehedi Hasan, Md Rokib Hasan, Md Mahabur Hossain, Md Rafiul Islam
04:00 – 04:15	472	<b>Study of Cadmium (Cd) Incorporated Amorphous Tin Oxide (SnO<sub>2</sub>) Thin Film, An Approach of Investigating Microstructural, Morphological and Optical Properties.</b> Md.Minhajul Islam, Mustafa Nafis Jahangir, Fahim Shariar, Md. Mahfujul Hasan, Md. Mintu Ali, Md. Humayan Kabir
04:15 – 04:30	351	<b>Optimizing Ceramic Body Properties with a Waste Blend of Sugarcane Bagasse and Coconut Shell Ash.</b> Md Estabrak Ahammod Sakib, Md. Lael Hasan, Md. Farhan Muskan, Hridoy Roy, Hasibur Rahman Naim, Md. Mintu Ali

**Day 2: Friday, 25 April, 2025**

**Parallel Online Technical Sessions II (A-E)**

<b>Online Session II (A)</b> <b>Day 2:</b> Friday, 25 April 2025 <b>Reporting time:</b> 11:25 am		<b>Theme:</b> Engineering Management <b>Time:</b> 11:30 am – 01:00 pm <b>Chair:</b> Prof. Dr. Muhammad Saiful Islam, Dept. of CEE, SUST. <b>Moderator:</b> Prof. Dr. Md. Misbah Uddin, Dept. of CEE, SUST
Time	Paper ID	Titles/ Authors
11:30 – 11:45	066	<b>Evaluating The Commuter Satisfaction and Feeder System for MRT Line-6 In Bangladesh: A Feasibility and Performance Assessment.</b> Amimul Haque, Shadid Hossain, Nusaiba Fardous, Dr. Md. Shahid Mamun
11:45 – 12:00	071	<b>Disaster Rehabilitation and Resource Allocation: A Regional Analysis of Government and NGO Responses in Bangladesh's High-Risk Areas.</b> Mehjabin Jahangir Rafjin, A.K.M Hamidul Alam, Anutosh Das4, Dulal Sarker ,Sumita Roy
12:00 – 12:15	321	<b>Automation in Construction Quality Control: Integrating Unmanned Aerial Vehicle (UAV), CNNs, and Photogrammetry for Structural Element Detection and Measurement Precision.</b> Alinda Bhattacharjee, Estiak Ahmed, Md Jewel Rana
12:15 – 12:30	346	<b>Overcoming The Challenges of Wind Power Generating Plants in Aspects of Aesthetic Approval and Location Dependence.</b> Rhad Parsa, Md. Fuad Ahmed
12:30 – 12:45	402	<b>Achieving Eco-Friendly Sustainable Self-Healing Concrete by Using Bacteria and fly ash: Analyzing Strength, E-CO<sub>2</sub> and Cost.</b> Shrayoshi Dey Arpa, MD Jahidul Islam
12:45 – 01:00	511	<b>Assessment of Waste Generation and Collection Efficiency by NGOS In Institutional Areas of Khulna City: An Analysis of Service Gaps and Deficiencies.</b> N. I. Midula, S M Abdullah

<b>Online Session II (B)</b> <b>Day 2:</b> Friday, 25 April 2025 <b>Reporting time:</b> 11:25 am		<b>Theme:</b> Environmental Engineering <b>Time:</b> 11:30 am – 01:00 pm <b>Chair:</b> Prof. Dr. Aysha Akter, Department of Civil Engineering, CUET. <b>Moderator:</b> Md. Nazmul Islam Rafi, Lecturer, Dept. of CEE, SUST.
Time	Paper ID	Titles/ Authors
11:30 – 11:45	119	<b>Evaluating Rainwater Harvesting for Institutional Water Sustainability: A Case Study in Rajshahi, Bangladesh.</b> Md.Mafizur Rahman, Priyanti Dam, Asif Sadman Khan, Siddhartha Sarkar
11:45 – 12:00	258	<b>Cost-Effective Solar Desalination System for Potable Water.</b> Ashfaque Rahman, Md. Abdullah Kavi, Asiful Hoque
12:00 – 12:15	619	<b>A WQI-Based Assessment of Drinking Water Quality in KUET Student Halls.</b> Nishat Tasnim, Muhtasin Ahmed, Rafia Binte Rouf
12:15 – 12:30	679	<b>Relating Spatiotemporal Changes in Urban Heat Islands to LULC and Environmental Indices: A Comparative Study of Dhaka and Faridpur.</b> Protik Roy Mugdha, Khandaker Shahariar Hasan, Hrisita Datta Roy
12:30 – 12:45	780	<b>Overcoming Construction Industry Bottlenecks: The Potential of IoT for Improved Management and Efficiency.</b> Md. Fuad Ahmed, Faria Islam, Md. Towfik Hassan

12:45 – 01:00	856	<b>Landslide Susceptibility Assessment of Rangamati Hill District Using Deep Learning Method.</b> Golam Murad, Md Aftabur Rahman
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<b>Online Session II (C)</b> <b>Day 2:</b> Friday, 25 April 2025 <b>Reporting time:</b> 02:25 pm		<b>Theme:</b> Transportation Engineering <b>Time:</b> 02:00 pm – 03:30 pm <b>Chair:</b> Prof. Dr. Md Bashirul Haque, Dept. of CEE, SUST. <b>Moderator:</b> Md. Aminul Islam, Assistant Professor, Dept. of CEE, SUST.
Time	Paper ID	Titles/ Authors
11:30 – 11:45	018	<b>Microscopic Traffic Simulation and Emission Modelling for Roundabout Intersection in Khulna Metropolitan City, Bangladesh.</b> Tanveer Tausif, Md. Fahim Montasir Zisan, Md Ahad Ali Khan, Rafia Binte Rouf, Arafat Bin Ansar
11:45 – 12:00	151	<b>Calibration and Validation of a Model Using PTV Vissim Software at 2 No Gate Intersection in Chittagong.</b> Md. Asibul Islam Piash, Fahad Ahmed Shaon, Tanzilla Ahmed Lamia
12:00 – 12:15	185	<b>Speeding into Congestion: Motorized Rickshaw Agility vs. Pedal Rickshaw Simplicity.</b> Anindita Das, Fabliha Afaf, Tafsiruzzaman Tanvi
12:15 – 12:30	283	<b>Analyzing Vehicle Emissions and Mitigation Strategies in Chittagong City Using SIDRA</b> Farhana Mehjabin, Syeda Tamzida Akter, Samia Shafique, Mahbub Hassan
12:30 – 12:45	291	<b>Evaluating Traffic Dynamics at a Critical Urban Intersection: A Case Study in C&amp;B Intersection, Rajshahi.</b> Mehjabin Jahangir Rafjin, Mehedi Mohammad Zummah, Nishat Sharmin Joti, Maharaf Khan Sawon, Muhammad Waresul Hassan Nipun, Jahid Hasan
12:45 – 01:00	441	<b>Optimizing Roundabout Traffic Flow: A Simulation-Based Analysis Using PTV Vissim.</b> Md Tarikul Islam, Masum Ahmed Emon, Rasadul Islam Rasal, Md Tanjin Ahmmed

<b>Online Session II (E)</b> <b>Day 2:</b> Friday, 25 April 2025 <b>Reporting time:</b> 11:25 am		<b>Theme:</b> Photonics and Energy <b>Time:</b> 11:30 am – 01:00 pm <b>Chair:</b> Prof. Dr. Mamun - Ur - Rashid Khandker Dept. of Electrical & Electronic Engineering, RU. <b>Moderator:</b> Dr. Md. Mohsinur Rahman Adnan, Assistant Professor, Dept. of EEE, SUST
Time	Paper ID	Titles/ Authors
11:30 – 11:45	019	<b>High Birefringence Low Loss Al-coated Polarization Maintaining Hollow Core Antiresonant Fiber for THz System.</b> Md. Sagor Ali, Kumary Sumi Rani Shaha, Dr. Abdul Khaleque
11:45 – 12:00	038	<b>Simulation and Numerical Analysis of Triple Absorber Solar Cell Using SCAP-1D.</b> Mahmud Syeed, Shamim Reza, Dr. Md Mohsinur Rahman Adnan
12:00 – 12:15	044	<b>Analytical Modeling and Potential Profile Verification of P-type Cylindrical Gate Junctionless Accumulation Mode MOSFET (CGJAMM) with Stack Oxide.</b> Md Nahiduzzaman Roni, Nahian Sadat, Md Mohsinur Rahman Adnan
12:15 – 12:30	136	<b>Advanced Thermoelectric Energy Harvesting for Waste Heat Recovery in Industrial Machinery: Enhancing Efficiency through Innovative Thermal Management Solutions.</b> Tanimul Islam, Md Sadik Intiaz

12:30 – 12:45	906	<b>Generation of Electricity By Using Speed Breaker.</b> Hafizur Chowdhury, Md. Abdus Shakur, Md Shawon Miah, All Fahad Bin Ahad
12:45 – 01:00	930	<b>Analytical Modeling and Validation of Threshold Voltage in p-Channel Double-Gate Junction less Filed Effect Transistors.</b> Md. Mandol, Gazi Shahariar, Dr. Md. Moshinur Rahman Adnan

**Day 3: Saturday, 26 April, 2025**

**Parallel Online Technical Sessions III (A-F)**

<b>Online Session III (A)</b> <b>Day 3: Saturday, 26 April 2025</b> <b>Reporting time: 08:55 am</b>		<b>Theme:</b> Structural Engineering <b>Time:</b> 09:00 am – 10:45 am <b>Chair:</b> Dr. Ismail Saifullah, Department of Civil Engineering, KUET. <b>Moderator:</b> Mohaiminul Haque, Assistant Professor, Dept. of CEE, SUST.
<b>Time</b>	<b>Paper ID</b>	<b>Titles/ Authors</b>
09:00 – 09:15	040	<b>Investigating Strength of Normal Concrete Using Lime Dust &amp; Synthetic Fiber.</b> Sheikh Md Fahim Uddin, Amit Kumar Das, Tanveer Razuan Badhon
09:15 – 09:30	112	<b>Service Life Analysis of Concrete with Alternative Materials Used as a Replacement of Cement using Life-365TM.</b> Abdullah Asif, Sazid Alam Shurid, Ayon Mollik, Fayeque Tazwar
09:30 – 09:45	490	<b>Effect of Microsilica and Galvanized-Iron Fibre on the Mechanical and Durability Properties of High Strength Mortar.</b> Bishworup Goswami, Ananda Shil, Md. Moinul Islam
09:45 – 10:00	542	<b>Analysis &amp; Design of Multi-Storey Building on Partially Soft and Partially Hard Soil.</b> Sheikh Arif Ahmed Pial, Nure Yeazdhani, Md.Rabiul Alam
10:00 – 10:15	612	<b>Comparison of Wind Load Effects on High-Rise Reinforced Concrete Buildings with Different Shapes in a Coastal Region Using Bangladesh National Building Code 2020.</b> Md Abu Sufian, Iftia Rahman Minha, T. Ahmed, B. Deb, S. Ahmed, M. J. B. Alam
10:15 – 10:30	642	<b>Simulation of local buckling-induced degradation in square-size steel hollow structural section brace under cyclic loading.</b> Mohammad Islam, Akshay Somkuwar, Ali Imanpour, Taichiro Okazaki, Ryota Matsui
10:30 – 10:45	773	<b>Impact of two-stage mixing approach on chemical resistance of recycled brick aggregate concrete.</b> Rezvi, S. E. and Oishe, S. R

<b>Online Session III (B)</b> <b>Day 3: Saturday, 26 April 2025</b> <b>Reporting time: 08:55 am</b>		<b>Theme:</b> Geotechnical Engineering <b>Time:</b> 09:00 am – 10:45 am <b>Chair:</b> Prof. Dr. Shriful Islam, Dept. of CEE, SUST <b>Moderator:</b> Jafor Ahmed Limon, Assistant Professor, Department of Civil Engineering, Leading University, Sylhet.
<b>Time</b>	<b>Paper ID</b>	<b>Titles/ Authors</b>
09:00 – 09:15	029	<b>Analysis of how the structure of the soil affects the clay soil's consolidation behavior.</b> Sayma Sultana Keya, Rafi Bin Shahadat, Md Ahad Ali Khan, Arafat Bin Ansar



09:15 – 09:30	030	<b>Effect of Curing Period on Compressive Strength of Cement-Treated Dredged Clay.</b> Md Ahad Ali Khan, Syed Rezvi, Saad Kaiyum Kishor, Sayma Keya, Arafat Bin Ansar
09:30 – 09:45	057	<b>Assessing the Effectiveness of Cotton Waste Fiber as a Soil Stabilizing Agent from Textile Factories.</b> Susmith Kundu, Indraneel Das, Anindya Baidya, Shantunu Chowdhury, Nasima Sultana
09:45 – 10:00	062	<b>One-Dimensional Consolidation Behaviour of Organic Soil with Cement Treatment.</b> Arafat Bin Ansar, Md Ibrahim Bhuyia, Md. Rokonzaman, Sayma Sultana Keya, Md Ahad Ali Khan
10:00 – 10:15	350	<b>Sensitivity Analysis of Liquefaction Potential and Hazard Mapping in the Chattogram Metropolitan Area Using Geotechnical and GIS Techniques.</b> Anindya Baidya, Shantunu Chowdhury, Aishik Gupta, Opu Chandra Debanath, Md. Aftabur Rahman
10:15 – 10:30	491	<b>Analysis of Urban Sprawl and Growth Pattern Using Geospatial Techniques and Shannon’s Entropy Model in Narayanganj District, Bangladesh.</b> Asha Chowdhury, Pinky Debnath, Sourav Das, Debasish Roy Raja
10:30 – 10:45	714	<b>Geospatial Mapping of Soil Properties Utilizing Geographic Information System (GIS) for DMDP Area of Bangladesh.</b> Sumaya Hasan, Dipro Biswas, Mehedi Ahmed Ansary

<b>Online Session III (E)</b> <b>Day 3:</b> Saturday, 26 April 2025 <b>Reporting time:</b> 08:55 am		<b>Theme:</b> Networking and Security <b>Time:</b> 09:00 am – 10:00 am <b>Chair:</b> Prof. Dr. Farida Chowdhury, Brac University. <b>Moderator:</b> Dr. Husne Ara Chowdhury, Associate Professor, Dept. of CSE, SUST
<b>Time</b>	<b>Paper ID</b>	<b>Titles/ Authors</b>
09:00 – 09:15	587	<b>Comprehensive Convolutional Neural Network approach for fall detection using Deep Learning.</b> Nayamat Ullah Chowdhury, Somaya Shikder, Shuhena Salam Aonty
09:15 – 09:30	614	<b>CNN Based Emotion Recognition From EEG Signals Utilizing Time-Domain Features.</b> Rabita Hasan, Sheikh Md. Rabiul Islam
09:30 – 09:45	840	<b>Comparative Analysis of Heap Algorithms for Anomaly Localization in Dynamic Graph Neural Networks.</b> Kiyas Mahmud, Tauhid Sarker, Syeda Shakira Akter, MD. Maruf Hossain Munna, Kazi Redwan, Md. Faruk Abdullah Al Sohan
09:45 – 10:00	872	<b>CNN-Based Student Attentiveness Detection: A Hybrid Approach with Dimensional Reduction.</b> Nazmus Sakib Md Adil, Kowshik Das Ushna, Md. Tasnimur Rahman, Shuhena Aonty

<b>Online Session III (F)</b> <b>Day 3:</b> Saturday, 26 April 2025 <b>Reporting time:</b> 08:55 am		<b>Theme:</b> Industrial Engineering <b>Time:</b> 09:00 am – 10:15 am <b>Chair:</b> Prof. Dr. Ahmed Sayem, Dept. of IPE, SUST. <b>Moderator:</b> Prof. Muhammad Abdus Samad, Dept. of IPE, SUST.
<b>Time</b>	<b>Paper ID</b>	<b>Titles/ Authors</b>
09:00 – 09:15	222	<b>Automatic Hand Sanitizer Dispenser by Industrial Automation.</b> Adri Dash, Rifat Hussain Akand Pulok, Hrittik Mural, Nayan Chakraborty, Md. Sabbir Hossain Shuvo, Md. Ashfaq Shahriar, Md. Mahabub-A - Khoda, Md. Hasib Jahan

09:15 – 09:30	447	<b>Comparative Analysis of Welded Joint Mechanical Properties by utilizing Gas and Arc Welding Methods With 7018 and 6013 Electrodes.</b> Rahat Ullah, Md Sajidur Rahman, Md. Rezwanul Abedin, Mohammad Abrar Jawad Chowdhury
09:30 – 09:45	501	<b>Optimization and Characterization of Bio-Diesel Production from Rubber Seed Oil Using Response Surface Methodology.</b> Mohammad Abrar Jawad Chowdhury, Rahat Ullah, Iffat Azima Jiban, Md. Main Uddin, Nahid Hasan Milu
09:45 – 10:00	557	<b>Design and Analysis of Electric Automotive Vehicle Rim using Finite Element Method in ANSYS.</b> Sium Islam, Farhan Shahat
10:00 – 10.15	869	<b>Reassessing the Effectiveness and Cost-Efficiency of Solar-Powered Electric Vehicle Charging Stations for Three-Wheelers in Bangladesh.</b> Miftahul Mobin Chowdhury, Utsho Saha, Md. Mamunur Rashid Rifat, Md. Tanvir Hasan, Nirendra Nath Mustafi, Md. Sanowar Hossain

#### Parallel Online Technical Sessions IV (D-F)

<b>Online Session IV (D)</b> <b>Day 3: Saturday, 26 April 2025</b> <b>Reporting time: 10:40 am</b>		<b>Theme:</b> Chemical and Environmental Engineering <b>Time:</b> 10:45 am – 12:15 am <b>Chair:</b> Prof. Dr. Muhammad Abdus Salam, Dept. of CEP, SUST. <b>Moderator:</b> Dr. Humayun Ahmad, Assistant Professor, Dept. of CEP, SUST.
<b>Time</b>	<b>Paper ID</b>	<b>Titles/ Authors</b>
10:45 – 11:00	267	<b>Investigation of Morphological Transformations of Padma River Lower Basin Using ArcGIS.</b> Anupam Chowdhury, Rubaiyat Mouly, Maria Raka, M. Israt
11:00 – 11:15	559	<b>Electrical Properties of Polyaniline based binary and ternary hybrid nanocomposites and their thin films on FTO.</b> Md Shahriar Akanda, Masiur Rahman Sajib, Mohammed Mastabur Rahman
11:15 – 11:30	571	<b>Evaluation of Chickpea, Rice Husk, and Moringa Oleifera as Sustainable Alternatives to Alum for Turbidity and Color Removal in Surface Water.</b> Mohimenul Alam Mahe, Md. Kawsar Ahmed
11:30 – 11:45	756	<b>Assessing the Impact of Rainfall on Flooding in Southeastern Region of Bangladesh: A 45-Year Hydrological Analysis.</b> Abtahi M Nafiz, Ananta Karmakar, Debasish Roy Raja, Sourav Das
11:45 – 12:00	918	<b>Vacancy Doped Electrocatalyst for Hydrogen Evolution Reaction Based on Density Functional Theory.</b> Umme Hani Prova

<b>Online Session IV (E)</b> <b>Day 3: Saturday, 26 April 2025</b> <b>Reporting time: 9:35 am</b>		<b>Theme:</b> AI and ML <b>Time:</b> 10:45 am – 12:15 am <b>Chair:</b> Dr. M. Shahriar Hossain, Associate Professor, Department of Computer Science at the University of Texas at El Paso (UTEP), USA <b>Moderator:</b> Dr. Mahfuzur Rahman, Assistant Professor, Department of CS, King Fahd University of Petroleum and Minerals, KSA
<b>Time</b>	<b>Paper ID</b>	<b>Titles/ Authors</b>
10:45 – 11:00	009	<b>Artificial Intelligence is Ushering a New Revolutionary Century for Design Industry.</b> S. M. Muhaiminul Islam ,Md. Mohaimenul Islam, Muhammed Mirsad Hossain.

11:00 – 11:15	437	<b>Presenile and Senile Dementia Detection in MRI Image by Deep Learning: A Comparative Study.</b> Md Ashikuzzaman, Md Al Emran, Rokieya Akter, Md. Shahriar Asif Ornab, Sayed Faisal Hossain, Md. Ebrahim Khallil, Shamsul Abedin
11:15 – 11:30	497	<b>Ensemble based Machine Learning Models for Early Stroke Prediction and Risk Factors Identification.</b> Mohammad Sakib Mahmood, Touhid Alam Shusmita Anjum Aziz, Sayedur Rahman
11:30 – 11:45	506	<b>Crop Recommendation System using Machine Learning.</b> Souhardyo Bhattacharjee, Anamika Nath
11:45 – 12:00	752	<b>Implementation of Machine Learning Assisted PPG-based Non-Invasive Blood Glucose Monitoring System.</b> Tanmoy Kumar Paul, Juhayer Mahtab Tasin, Md. Jahirul Islam, Md Rejvi Kaysir

<b>Online Session IV (F)</b> <b>Day 3: Friday, 26 April 2025</b> <b>Reporting time: 10:35 am</b>		<b>Theme:</b> Mechanical Engineering <b>Time:</b> 10:45 am – 12:15 am <b>Chair:</b> Prof. Dr. Choudhury Abul Anam Rashed, Dept. of IPE, SUST. <b>Moderator:</b> Md. Mahmud-Or-Rashid, Assistant Professor, Dept. of ME, SUST.
<b>Time</b>	<b>Paper ID</b>	<b>Titles/ Authors</b>
10:45 – 11:00	037	<b>Green Synthesis of Copper (Cu) Doped Magnesium Oxide (MgO) Nanoparticles from Leaves of Ficus Hippida and Assessment of Their Antimicrobial Activities.</b> Harun-Or- Rashid, Esrat Jahan
11:00 – 11:15	482	<b>Fabrication and Mechanical Characterization of Betel Nut/Glass Fiber Bio-composites.</b> Nur Mohammad Mia, Md. Sanaul Rabbi, Protayay Dey Jitu
11:15 – 11:30	483	<b>Fabrication and Property Characterization of Coir and Jute-Fiber Reinforced Epoxy Composite.</b> Nur Mohammad Mia, Tasawar Sudman Ahmed, Md. Sakib Hossain, Iffat Ara Mohona
11:30 – 11:45	797	<b>Designing a 70 MPa Type IV hydrogen storage tank and evaluation of refueling performance at various supply temperatures.</b> Mirza Samnar Walid, Anik Molla, Mirza Samzan Walid, Hasan Muhommod Robin
11:45 – 12:00	889	<b>Effect of surface deposits on the coefficient of discharge of an orifice meter.</b> Md. Ragib Shariar, Muhammed Mahbubur Razaque, Mahbub Rahman

### Poster Presentation

Time: 2:30 pm – 5:00 pm

<b>Poster Session</b> <b>Day 1: Thursday, 24 April 2025</b> <b>Venue:</b> 1st Floor Lobby, IICT, SUST <b>Poster submission:</b> 10:00 am, IICT reception (all presenters) <b>Presentation Reporting:</b> 2:00 pm, IICT Lobby (all presenters)		<b>Theme:</b> Mechanical, Industrial and Sustainable Engineering Electrical and Electronics Chemical, Petroleum and Food Process Engineering, Architecture, Civil and Environmental Engineering <b>Time:</b> 2:30- 5:00 pm <b>Chair:</b> Prof. Dr. M. Muhshin Aziz Khan, Dept. of IPE, SUST.
<b>Time</b>	<b>Paper ID</b>	<b>Title and Authors</b>
<b>02:30 pm</b> - <b>05.00 pm</b>	021	<b>Hydrotreatment of sawdust to advanced biofuel components using Mo and W-sulfide catalysts.</b> Md. Arbar Tashdid, Md. Harun Or Rashid, Muhammad Abdus Salam, Mohammad Rakib Uddin

090	<b>Rusle Model-Based Soil Loss Estimation to Prioritize Erosion Control in Chattogram City Corporation (ccc) Area.</b> Mohammad Mobashir Shifaen, Rizbina Reduan Rayma, Md. Kamrul Islam
093	<b>Optimizing OEE in Plastic Manufacturing Industry: A Strategic Approach to Reduce Downtime, and Defects.</b> Md.Shahidul Islam, SH Sakib, Jahidur Rahman
132	<b>Enhancing Daylighting in Design Studio and Surrounding Spaces through Alternative Building Form and Façade Design.</b> Authors: Sakib Khan, Md Ashikur Rahman, Razin Sachi
134	<b>Removal of Color From Surface Water Using Natural Adsorbents.</b> Authors: Roman Mia, Abdus Samad Khondaker, Md. Showkat Osman, Md. Jamil Mahmud Abdullah, Md. Masrub Ahmmad, Tanmoy Das, Syed AL Rahat
148	<b>Evaluating Fine Aggregates for Optimal Concrete Strength: A Case Study from Sylhet, Bangladesh.</b> Habiba Akther Asha, Mahbub Hasan, Sibbir Ahmed, Md. Jahir Bin Alam
150	<b>Investigating the Severity of Drought and Its Impact on Vegetation through Normalized Difference Vegetation Index and Vegetation Condition Index.</b> Makamee Subah, Debasish Roy Raja, Md. Kamrul Islam
158	<b>Seismic Analysis of An Eight-Storeyed Building In Sylhet: A Comparative Study of Static and Dynamic Methods.</b> Gourab Bose Durjoy, Syed Jil Asif Ethemud, Shariful Islam, Md. Ahsanul Alam Chowdhury, Md. Jahir Bin Alam
187	<b>Assessing Urban Fire Hazard Vulnerability Using Fuzzy AHP and Geospatial Analysis.</b> Muhaiminul Islam, Mst Ilme Faridatul
202	<b>Green Revolution in Concrete: Natural Fibers Meet Recycled Aggregates in ML-Driven Designs.</b> Arnab Das, Dipta Deb, Dipra Barua, Mayaz Uddin, Gourab Bose Durjoy, MD. Titumir Hasan
207	<b>ZnO-Enhanced Organic Polymerized Coagulants Derived from Corn for Effective Microplastic Removal: A Green Approach in Wastewater Treatment.</b> MD. Nazmul Hasan Khan, Farabi Nusrat
210	<b>AI-Driven AQI Predictions: LSTM And SARIMA For Dhaka.</b> Dipra Barua, Dipta Deb, Mayaz Uddin Gazi, Gourab Bose Durjoy, Ponkaj Debnath, Mohammad Arafat Alamgir
334	<b>The Role of Architecture in Overcoming Barriers to Sports Participation for People with Disabilities.</b> Ashraf-uz- Zaman, A. A. Mueid, H. Debnath
337	<b>Revolutionizing Concrete Mix Design with Neural Networks: A Machine Learning Approach.</b> Md Hasibul Islam, Md Rejwan Sarkar, Md Mashfiqur Rahamn, Sameeha Islam, Md Ferdous Alam
464	<b>Assessment of Disaster Preparedness among the Community of Jolma Union, Batiaghata.</b> Mst. Farhana Yeasmin, S.M. Moniruzzaman
465	<b>Theoretical Insights into Grain Boundary Engineering for Enhancing Mechanical Properties of Metallic Alloys.</b> Md. Abtahi Fahim
522	<b>Studies on Galvanized Steel Corrosion in Tap Water at Moderate Temperature.</b> Md. Kamrul Hasan, Md. Saiful Islam, Nahid Hasan Shuvo, Tareq, Md Jahid Hasan, Most. Sraboni Akter, Promita Poroma Sarkar, Md. Khairul, Shahriar Islam, Sha Md. Shahan, Sayed M A Salam
583	<b>Design and Prototyping of a Microcontroller-Based Device Integrating Synchroscope, PMU &amp; Fault Detection Capabilities.</b> Tahmidur Rahman, Saujon Bahadur, Maruf Uddin Chy, Md. Ashraful Alam
588	<b>Multimodal Zero-Shot Learning for Holistic Mental Health Assessment.</b> Jarin Alam Prity, Akif Mahdi
702	<b>Assessment of environmental impact in e-commerce and traditional retailing: A comparative approach in Sylhet City.</b> Minhaz Uddin, Md. Saidur Rahman Emon, Nusrat Jahan Ekra, Dr. Ahmad Hasan Nury

	807	<b>Biomimetics in wind turbine blade designs: a review from aerodynamic perspective.</b> Numan Zaman Dipu, Mokarrom Ahamed Badhon, Hasan Muhommod Robin, Mim Mashrur Ahmed
	894	<b>Molecular Dynamics Simulation on Mechanical Properties of Zirconium Carbide at Different Temperature and Strain Rate.</b> Md. Raihan Jomadder, Md. Shahidul Islam, Md. Imran Hosen, Rifat Ul Alam
	900	<b>Analysis of Fatigue Life for Different Geometries Under Uni-axial Loading Using FEM.</b> Rifat Alam, Shahidul Islam, Joyanta Chowdhury, Kishore Das
	901	<b>Enhancing Software Security with CWEpredBELL: A Novel Vulnerability Detection Model.</b> Syeda Sadia Alam, Alfredo Cuzzocrea, Mst Shapna Akter

### Online Poster Presentation

Time: 2:30 pm – 4:00 pm

<b>Online Poster Session:</b> <b>Day 2:</b> Friday, 25 April 2025 <b>Reporting:</b> 2:15 pm <b>Zoom platform link:</b> <a href="https://bdren.zoom.us/j/7163057540">https://bdren.zoom.us/j/7163057540</a> <b>ID: 7163057540 (No password)</b>		<b>Theme:</b> Mechanical, Industrial and Sustainable Engineering Electrical and Electronics Chemical, Petroleum and Food Process Engineering Architecture, Civil and Environmental Engineering <b>Time: 2:30- 5:00 pm</b> <b>Chair:</b> Kawshik Saha, Associate Professor, Dept. of ARC, SUST.
<b>Time</b>	<b>Paper ID</b>	<b>Titles/ Authors</b>
02:30 – 02:40	234	<b>Historical Influences and Incidental Learnings in Fire and Life Safety Codes: A Review.</b> Anupama Paul Nedhi, MD. Naimul Islam, A.K.M. Monoarul Huda, Farukh Hossain, Udoy Paul, Sadeka Mursaleen
02:40 – 02:50	300	<b>Flood Extent Mapping of the August 2024 Flood in Bangladesh Using Remote Sensing and Geographical Information System.</b> S M Aumlan Islam Rupak, Avijeet Kumar Das, Kazi Jannatul Ferdous Silvi
02:50 – 03:00	355	<b>Intelligent Infrastructure: Predicting Bridge Collapse with Advanced Machine Learning.</b> Mayaz Uddin, Md Titumir Hasan, Showrav Mitra, Nafiz Nahid, Gourab Roy
03:00 – 03:10	368	<b>Geospatial Multicriteria Analysis for Earthquake Hazard Assessment: A Case Study of Bangladesh.</b> Syed Shoabul Islam, Tabassum Binte Alam, Zerine Sultana, Mohammad Belayet Hossain Raihan, Mohammad Sadat Ibne Yasin
03:10 – 03:20	486	<b>LLamaHealth: Assessing LLaMA's Performance in Multi-Class Healthcare Test Result Prediction.</b> Ushashi Bhattacharjee, Tirtho Roy, Supreyo Chakravorty Pretom, Al Kaium Shawon, Sayantan Chakraborty, Adrito Roy
03:20 – 03:30	623	<b>Pedestrian Travel Time Analysis and Standard Footpath Design Using Ptv Vissim and Viswalk.</b> Hasanul Banna Rajib, Md. Tarikul Islam, Md Shakil Hossain
03:30 – 03:40	748	<b>One Dimensional Photonic Crystal Nanobeam Cavity for Refractive Index-based Bio-Sensing Applications.</b> Debjyoti Banik, Md Abdur Rakib, Md Jahirul Islam, Md Rejvi Kaysir
03:40 – 03:50	779	<b>Challenges and Mitigation Measures of Freight Movement and Urban Logistics: A Comprehensive Overview for Developing Economies.</b> Sumaya Hasan, Dipro Biswas

**Closing Ceremony**  
**Day 3: Saturday 26 April 2025**  
**3:45 pm – 5:00 pm**  
**Venue: Central Auditorium**

**Refreshment**

