



**3rd International Conference on Mechanical,
Manufacturing and Process Engineering (ICMMPE - 2026)
30 - 31 January 2026**

**Venue: DUET, Gazipur, Bangladesh
Mode: Hybrid (Physical and Virtual)**



(Time Schedule for each presenter:

Presentation- 10 mins; Q/A - 3 mins; Transfer- 2 mins)

Day-1: January 30, 2026 - Friday: 8:00 AM – 5:30 PM

Time	Program	Venue
8:00 AM -9:00 AM	Registration, Breakfast and Kit Distribution	Entry of Auditorium, DUET
9:00 AM -10:00 AM	Opening Ceremony	Auditorium, DUET
Zoom Link: https://bdren.zoom.us/j/3688593246?omn=91321379265 Meeting ID: 368 859 3246		
10:00 AM – 10:30 AM	Keynote Speaker 1: Professor Akio MIYARA, PhD Saga University, Japan	Auditorium, DUET
Zoom Link: https://bdren.zoom.us/j/3688593246?omn=91321379265 Meeting ID: 368 859 3246		
10:30 AM – 11:00 AM	Keynote Speaker 2: Dr. Muhammad Anis Mustaghfirin ST., MT. Politeknik Perkapalan Negeri Surabaya, Indonesia	Auditorium, DUET
Zoom Link: https://bdren.zoom.us/j/3688593246?omn=91321379265 Meeting ID: 368 859 3246		
11:00 AM – 11:15 AM	Tea Break	Room: 10 th floor Open Space, SSNIAB
11:15 AM – 12:00 PM	Technical Session 1	Room: SSNIAB
12:00 PM – 01:00 PM	Poster Session and Lunch Break	Room: 10 th Floor, SASAB
01:00 PM – 02:00 PM	Prayer Break	
02:00 PM – 02:30 PM	Keynote Speaker 3: Professor Lijing Wang, PhD RMIT University, Melbourne, Australia	Room: 11003 (SSNIAB)
Zoom Link: https://bdren.zoom.us/j/3688593246?omn=91321379265 Meeting ID: 368 859 3246 Chair: Prof. Dr. Mohammad Nurul Islam, Head & Dean, ME, BAUET Co-Chair: Prof. Dr. A.N.M. Mominul Islam Mukut, ME, DUET		
02:30 PM – 03:00 PM	Keynote Speaker 4: Professor Hiromichi Obara, PhD Tokyo Metropolitan University, Japan	Room: 11003 (SSNIAB)
Zoom Link: https://bdren.zoom.us/j/3688593246?omn=91321379265 Meeting ID: 368 859 3246 Chair: Prof. Dr. Mohammad Nurul Islam, Head & Dean, ME, BAUET		



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Co-Chair: Prof. Dr. A.N.M. Mominul Islam Mukut, ME, DUET		
03:00 PM – 04:00 PM	Technical Session 2	Room: SSNIAB
04:00 PM – 04:30 AM	Prayer & Tea Break	Room:10th floor Open Space, SSNIAB
04:30 PM – 05:30 PM	Technical Session 3	Room: SSNIAB

Day 2: January 31, 2026 - Saturday: 8:00 AM – 9:30 PM

Time	Program	Venue
08:30 AM – 09:00 AM	Registration and Kit Distribution	10th floor Open Space, SSNIAB
09:00 AM – 09:30 AM	Keynote Speaker 5: Dr. SeungYeon Kang University of Connecticut, USA Zoom Link: https://bdren.zoom.us/j/3688593246?omn=96887962617 Meeting ID: 368 859 3246 Chair: Prof. Dr. Md. Arefin Kowser, ME, DUET Co-Chair: Prof. Dr. Md. Mostaqur Rahman, ME, DUET	Room: 11003 (SSNIAB)
9:30 AM -10:00 AM	Keynote Speaker 6: Professor Ruigang Wang, PhD Michigan State University, USA Zoom Link: https://bdren.zoom.us/j/3688593246?omn=96887962617 Meeting ID: 368 859 3246 Chair: Prof. Dr. Md. Arefin Kowser, ME, DUET Co-Chair: Prof. Dr. Md. Mostaqur Rahman, ME, DUET	Room: 11003 (SSNIAB)
10:00 AM – 10:30 AM	Tea Break	10 th floor Open Space, SSNIAB
10:30 AM –12:00 AM	Technical Session 4	Room: SSNIAB
12:00 PM – 01:00 PM	Lunch	10 th floor Open Space, SSNIAB
01:00 PM – 02:00 PM	Journey to Walton Hi-Tech Industries PLC for Visit	
02:00 PM – 03:30 PM	Visit at Walton Hi-Tech Industries PLC	
03:30 PM – 05:30 PM	Journey to Radisson Blu Water Garden Hotel, Dhaka	
06:00 PM – 07:30 PM	Product and Technology talk by Industry Person, Radisson Blu Water Garden Hotel, Dhaka	
07:30 PM – 08:30 PM	Closing Ceremony	Radisson Blu Water Garden Hotel, Dhaka
08:30 PM – 09:30 PM	Gala Dinner	Radisson Blu Water Garden Hotel, Dhaka



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Chemical Engineering

Technical Session – 2: Time: 3:00 PM – 4:00 PM, January 30, 2026
Room: 6004A (SSNIAB)

Chair: Dr. Ummei Rayhan, Professor, Chemistry, DUET
Co-Chair: Mr. Akib Atique Khan Dhrubo, Assistant Professor, ChE, DUET

Zoom Link: <https://bdren.zoom.us/j/93880718282?pwd=Pbq6UooE6PWDrFiPefgeBKYf3a9Svc.1>

Meeting ID: 938 8071 8282; Password: icmpe2026

S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
1	057	Adsorptive Removal of Methylene Blue (MB) by the Application of Sawdust-Derived Activated Carbon (AC)	<u>Md. Sakib Shahriya Sarker</u> , Tasnim Hanan Tusti, Md. Jahurul Islam and Akib Atique Khan Dhrubo*	Virtual	
2	069	Mechanical, Electronic, Optical, and Thermoelectric Properties of Lead-Free K_2XCl_6 (X = Pt, Pd) Halide Perovskites: A DFT Study	<u>Anirbun Paul Arko*</u> , Boshir Ahammed, A.K.M Mahamudul Hasan Sohag, Tanvir Islam, Dipannita Basak and Md Abdur Razzaq	Physical	
3	083	Synthesis of Flash Graphene from Bio-Waste by Flash Joule Heating Method and Evaluating its Properties	<u>Nafiz Ahmed</u> , Sanjidul Islam and Md. Abdur Rahim*	Physical	
4	195	A Comparative Study of Silver-Doped and Holmium-Doped Titanium Dioxide (TiO ₂) Nanoparticles: Morphological, Photocatalytic and Antibacterial Performance	<u>Md Jewel Rana</u> , Md Abdul Khalak, Md Reyad Babu and Raduanul Islam Mridul	Physical	



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Presentation- 10 mins; Q/A - 3 mins; Transfer- 2 mins)

Technical Session – 3: Time: 4:30 PM – 5:30 PM, January 30, 2026 Room: 6004A (SSNIAB)					
Chair: Dr. Nour Md Mofiz Uddin Khan, Professor, Chemistry, DUET Co-Chair: Mr. Md. Shariful Alam Emon, Assistant Professor, ME, DUET					
Zoom Link: https://bdren.zoom.us/j/93880718282?pwd=Pbq6UooE6PWDrFiPefgeBKYf3a9Svc.1 Meeting ID: 938 8071 8282; Password: icmpe2026					
S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
5	129	Performance Assessment of Copper Nanoparticle-Dispersed Soybean and Mustard Oil Bio-Lubricants: Tribological, Thermal, and Chemical Characterization	Md. Mesbah Uddin Saadi , Kawsarul Islam*, Md. Mostafa Hossain Sunny, Md. Mahfuzul Islam and Nayeem Md. Lutful Huq	Physical	
6	130	Effect on Microstructural, Mechanical, Thermal, and Chemical Properties by Addition of Water Treatment Plant (WTP) Sludge in Ceramics Body Formulation	Mohammad Bayazed Bashar, Debashish Halder* , Golam Mortuza Nion	Physical	
7	137	Removal of Methyl Blue Dye from Aqueous Solution Using Tea Waste Derived KOH Activated Carbon: A Study of Adsorption and Kinetics	Pranto Das Suvo , Mohitosh Roy, S. M. Akimus Salehin* and Akib Atique Khan Dhrubo	Physical	
8	139	Photodegradation of Carbaryl Insecticide Using Cu Doped TiO ₂ Nanoparticles	Safat Anam*, Israt Jahan Shammi and Md. Masumul Haque	Virtual	



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<p align="center">Technical Session – 4: Time: 10:30 AM – 12:00 PM, January 31, 2026 Room: 6004A (SSNIAB)</p> <p align="center">Chair: Dr. Shahjalal Khandaker Professor, TE, DUET Co-Chair: Mr. Akib Atique Khan Dhrubo, Assistant Professor, ChE, DUET</p> <p align="center">Zoom Link: https://bdren.zoom.us/j/93880718282?pwd=Pbq6UooE6PWDrFiPefgeBKYf3a9Svc.1 Meeting ID: 938 8071 8282; Password: icmmpe2026</p>					
S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
9	063	Sustainable CO ₂ Conversion through Plasma-Catalytic Synergy on Nanostructured Catalysts	<u>Md Monir Hossain</u> and Ruigang Wang*	Virtual	
10	201	Analysis the Effect of Nickel Doping on Structural, Piezoelectric and Photocatalytic Properties of Bismuth Zirconate Nanoparticles	Abdullah Wasif Rafin, <u>Md. Tanzim Shahriar,</u> Foysal Anwar and Mohammad Shahed Hasan Khan Tushar	Physical	
11	214	Feasibility Assessment of Electrocoagulation for Heavy Metal Removal from Barapukuria Coal Mine Drainage	<u>Md. Mustafiz Islam Rifat,</u> K M Jahin, Shumonto Shoron, and Sazid Rabbi	Physical	
12	230	Comparative Assessment of Physicochemical Characteristics and Dye Adsorption Efficiency of Activated Eggshell and Corncob Biochar for Wastewater Treatment	<u>Farjana Khondoker</u> and Maisa Rahman	Physical	
13	243	Investigation Of Photocatalytic and Antibacterial Properties of Pure and Holmium -Doped ZnO Nanoparticles Prepared Using Sol-Gel Technique	<u>Md. Rakibul Hasan,</u> Md. Ratul Mia, Md. Rafiqul Islam, Raduanul Islam Mridul* and Md. Shofiqul Islam	Physical	
14	256	Extraction and Formulation of an Eco-friendly Bio-Based Liquid Washing Soap from Green Coconut Shells	Md Masud Rana*, <u>Hasanuzzaman Aovon,</u> Selim Reza, Md. Rashed Mia1, Md. Arefin Kowser and Mohammad Asaduzzaman Chowdhury	Physical	



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Energy Engineering

Technical Session – 1: Time: 11:15 AM – 12:00 PM, January 30, 2026
Room; 11008 (SSNIAB)

Chair: Dr. Md. Anayet Ullah Patwari, Professor, MPE, IUT
Co-Chair: Md. Jakir Hossen, Assistant Professor, IEE, DUET

Zoom Link: <https://bdren.zoom.us/j/98459831358?pwd=STDG1NpxNaqRGUiQjy6SaqRFNkr9ob.1>
Meeting ID: 984 5983 1358; Password: icmmpe2026

S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
1	008	Optimal Distribution of Curved Profiles in a Hybrid Horizontal Axis Wind Turbine Blade with Multiple Integrated Aerofoils: A CFD Study	<u>Sammam Rahman*</u> , Anurag Nandi and Rudra Barua	Virtual	
2	009	CFD Analysis of Blade Angle Variation Effect in Bio-Inspired Triplaris Samara Seed based Horizontal Axis Wind Turbine : A Comparative Study	Sammam Rahman*, Rudra Barua and <u>Anurag Nandi</u>	Virtual	
3	039	Optimization of Available Sunlight for Photovoltaic and Photosynthesis to Develop an Efficient Agrivoltaic System in Bangladesh	S. M. Nasif Shams, <u>Akash Chandra Biswas*</u> , Fardin Hasin, Mohammad Rakib Hossain*	Virtual	



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Technical Session – 1: Time: 11:15 AM – 12:00 PM, January 30, 2026 Room; 11004 (SSNIAB)					
Chair: Dr. Mohammad Sultan Mahmud, Professor, ME, KUET Co-Chair: Dr. Mohammed Mahbulul Islam, Assistant Professor, IEE, DUET					
S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
4	006	Utilizing Green Building Technology in the Creation of an Efficient and Sustainable Heating, Ventilation, and Air Conditioning System (HVAC)	<u>Mahmudul Firoz*</u> , Md. Noman Babu and A Z A Saifullah	Physical	
5	013	Modification of the inlets of a Helmholtz resonator with complex design variations for stable low-frequency acoustic energy harvesting using multiple PZT films	Anayet U Patwari, <u>Nafis Md. M. Islam</u> , Md. Saifur Rahman	Physical	
6	020	Exploring the Potential of Natural Fiber Materials as Eco-Friendly Sound Absorber	Md. Anayet Ullah Patwari, <u>Maruf Ahmed</u> and Malick Fahim Muntasir	Physical	



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Technical Session – 1: Time: 11:15 AM – 12:00 PM, January 30, 2026 Room; 11005 (SSNIAB)					
Chair: Dr. Nayeem Md. Lutful Huq, Professor, ME, DUET Co-Chair: Mahadi Hasan Masud, Associate Prof., ME, RUET					
S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
7	048	Recent Advances in Flexible Hybrid Energy Cells for Simultaneous Harvesting of Thermal and Mechanical Energies	<u>Md. Rasel Islam</u> , Md. Abtahi Islam Fahim, Raihan Karal	Physical	
8	072	Experimental Analysis of Biodiesel Fuel Produced from Blended Rice Bran Methyl Ester (RBME) and Palm Oil Methyl Ester (POME)	<u>Md Rvshur Rahman Turin*</u> , Jamal Uddin Ahamed, Anisul Islam Suva, Iswar Chandra Mondal	Physical	
9	074	Design and Development of an Automated Rain Shed and Solar-Powered Rainwater Harvesting System for Sustainable Water Management	<u>Md. Mehedi Hassan*</u> , Nazmul Huda, Aung Chin Wain, Md. Fozle Rabby, Shahadat Hossain, Rahul Islam and Nayeem Md. Lutful Huq	Physical	



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Technical Session – 2: Time: 03:00 PM – 04:00 PM, January 30, 2026 Room; 11004 (SSNIAB)					
Chair: Prof. Dr. Himangshu Bhowmik, ME, DUET Co-Chair: Mr. Saddam Hossen, Assistant Professor, ME, DUET					
S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
10	077	Development of Smart Solar-Driven Thermoelectric Device for Sustainable Thermal Management	<u>Aung Chin Wain*</u> , Md. Mehedi Hassan, Nazmul Huda, Shahadat Hossain, Rahul Islam and Nayeem Md. Lutful Huq	Physical	
11	079	Enhancement of Capacity in Solid-State Li-ion Battery with Multilayer Membrane Cell	<u>Nazmul Huda</u> , Md. Mehedi Hassan, Mst. Hosne ara Himi, Jony Ahmed and Khurshida Sharmin*	Physical	
12	082	Thin-Film Solar Cells for Next Generation Photovoltaics and Emerging Applications: Beyond the Silicon Horizon	<u>Md. Saiful Islam Shanto</u> , Kazi Mamunur Rahman Rifat, Md. Fardin Ahsan Sojib, Md. Rasel Islam, Md Sihabul Islam Arpon, Md. Abtahi Islam Fahim	Physical	
13	087	Numerical Investigation of Heat Transfer Enhancement in a Flat Plate Solar Collector	Md. Shirazum Munir, <u>Shehabul Islam</u> and Mohammad Sultan Mahmud	Physical	



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Technical Session – 2: Time: 03:00 PM – 04:00 PM, January 30, 2026 Room; 11008 (SSNIAB)					
Chair: Prof. Dr. Md. Mahbubul Alam, ME, CUET Co-Chair: Sejuti Zaman, Lecturer, IEE					
Zoom Link: https://bdren.zoom.us/j/98459831358?pwd=STDG1NpxNaqRGUiQjy6SaqRFNkr9ob.1 Meeting ID: 984 5983 1358; Password: icmmpe2026					
S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
14	092	Advancing E-Waste Management: Innovative Solutions and Best Practices for Bangladesh	Moumita Bhattacharjee* , Zeba Fariha and Faiza Maliath	Virtual	
15	107	Decentralized Droop Control Strategy for Parallel Inverter-Based Distributed Generation in Smart Islanded Microgrids	Aysa Siddika Esha, Nadim Reza and Md Abdur Razzak	Virtual	
16	108	Using Machine Learning Models for Solar Energy Production Forecasting in Bangladesh	Kazi Warisa Tabassum* , Jannatul Ferdous, Nazmus Sakib Sami and Md. Mortuza Ahmmed	Physical	
17	109	Numerical Simulation of A Parabolic Trough Solar Collector: Assessment of Thermal Performance, Fluid Flow and Heat Transfer Characteristics	Utsho Saha , Md. Tanvir Hasan, Ahamed Jubayer Bhuiyan, Miftahul Mobin Chowdhury*, Md. Mamunur Rashid Rifat and Nirendra Nath Mustafi	Virtual	



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Technical Session – 2: Time: 03:00 PM – 04:00 PM, January 30, 2026 Room; 11006 (SSNIAB)					
Chair: Prof. Dr. Md. Mostafizur Rahman, ME, DUET Co-Chair: Mr. Karib Hassan Khan, ME, KUET					
S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
18	117	Forecasting Bangladesh Wind Electricity with Leakage-Safe Rolling Backtests using ARIMA, Prophet, LSTM, and Hybrid	Mahdi Hassan Noor Asif, Tamim Hasan Apurbo*, Md. Mehedi Imam Hasan, <u>Fahima Tajmoon Tafree</u> , Efrath Hossion Shihab, Md. Mortuza Ahmmed	Physical	
19	122	Performance and Feasibility Analysis of a Flying Windmill (Mars) as an Innovative Airborne Wind Energy System	Jannatul Tasnim, Shuvendhu Malakar, <u>Mahan Sarkar</u> , Md Maruf Prodhan, Abdur Rahman, Kristy Progya Biswas, Maria Mostari	Physical	
20	132	Characterization and Investigation of Energy Content in Common Medical Wastes in Bangladesh	Nayeem Md. Lutful Huq, <u>Md. Minhajur Rahman*</u> and Abida Siddique Keya	Physical	
21	133	Dhaka WASA's Dasherbandi Sewage Treatment Plant: A Holistic Approach to Sustainable Wastewater Management	Rajib Ahmed, <u>Asif Kabir</u> , Md. Saiful Islam, Mahmud Hasan Touhid, Hasan Almamun and Md. Mahbubur Rahman	Physical	



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Technical Session – 3: Time: 04:30 PM – 05:30 PM, January 30, 2026 Room; 11008 (SSNIAB)					
Chair: Prof. Dr. Shahajada Mahmudul Hasan, ME, RUET Co-Chair: Dr. Mohammed Mahbubul Islam, Assistant Professor, IEE, DUET					
Zoom Link: https://bdren.zoom.us/j/98459831358?pwd=STDG1NpxNaqRGUiQjy6SaqRFNkr9ob.1 Meeting ID: 984 5983 1358; Password: icmmpe2026					
S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
22	131	Comparative Characterization of Biodiesel from Karanja Oil, Flaxseed Oil, and Their Mixture: Physicochemical Properties, Yield, and Metal Compatibility	<u>Karib Hassan Khan*</u> and Mohammad Mashud	Virtual	
23	145	Numerical Analysis of Bio-Inspired Butterfly Wing Shaped Vertical Axis Wind Turbine : A Comparative Study	Sammam Rahman*, <u>Rudra Barua</u> , Anurag Nandi and Anindya Dutta	Virtual	
24	164	Techno-Economic Optimization and Curtailment Analysis of Solar Thermal Systems for Domestic Hot Water in a Maritime Climate: A Case Study of Donostia–San Sebastian (Spain)	Nadim Ahmed*, <u>Bibek Himalaya</u> , Edwin Akandwanaho, Mahfuzur Rahman , Sakina Akbar Naima	Virtual	
25	174	Exergoenvironmental and Sustainability Assessment of a Heavy Fuel Oil-Based Cogeneration Power Plant	<u>Fazla Hossain Mohaimen*</u> and Md. Mahbubul Alam	Virtual	



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Technical Session – 3: Time: 04:30 PM – 05:30 PM, January 30, 2026 Room; 11004 (SSNIAB)					
Chair: Prof. Dr. Dipayan Mondal, ME, KUET Co-Chair: Sejuti Zaman, Lecturer, IEE					
S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
26	136	A Comparative Analysis of Domestic Cooking Appliances: Energy Efficiency, Performance, and Economic Viability in Bangladesh	<u>Md. Noor Hasan*</u> , Hasan Mohammad Mostofa Afroz	Physical	
27	146	Analysis of Flue Gas from Municipal Solid Waste (MSW)	<u>Md. Shahjahan Miah</u> , Md. Rumon Hossain, Masum Billah, Moly Akter, Pranto Das Suvo, and M. Mostaqur Rahman*	Physical	
28	156	Development of Aspen Plus Simulation Model to Evaluate the Viability of Pyrolytic Oil from Waste Plastic	Sakib Karim*, <u>Mehrab Waliullah</u> and Md. Mizanur Rahman	Physical	
29	209	Optimizing PV–Battery Rooftop Solar Systems: Design and Simulation for Sustainable Energy On the LONCE Building	<u>Miss Al Ive</u> , Abu Talha Haque Miah* and Zahroul Haque Miah	Physical	



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Technical Session – 3: Time: 04:30 PM – 05:30 PM, January 30, 2026 Room; 11005 (SSNIAB)					
Chair: Prof. Dr. Himangshu Bhowmik, ME, DUET Co-Chair: Md. Jakir Hossen, Assistant Professor, IEE, DUET					
S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
30	211	Integrated DFT and SCAPS-1D Framework for the Design and Optimization of Efficient Cs ₂ KFeBr ₆ -based Perovskite Solar Cells	Md. Sarowar Jahan, Saidul Haque, Md. Imam Uddin and <u>Md. Jahidul Islam*</u>	Physical	
31	225	Design, Mechanisms, and Applications of Biomass Briquetting Machines for Residue Utilization	<u>Munem Rahman</u> , Limon Chandra Modak and Md. Anowar Hossain*	Physical	
32	227	Low-Grade Waste Heat Recovery: Current Challenges and Future Opportunities for Sustainable Manufacturing	Munem Rahman, <u>Fahad Bin Nissan</u> and Md. Anowar Hossain*	Physical	
33	250	Experimental Investigation on Hydrogen Fuel Production Efficiency Using an Alkaline Water Electrolyzer with Optimized Electrode Configurations	<u>Md. Abdulla Al Korais</u> , Jubaer Ali, Hasan Mohammad Mostofa Afroz, Samsul Islam, Md. Zakir Hosain and Mamun Ur Rashid	Physical	



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Technical Session – 4: Time: 10:30 AM – 12:00 PM, January 31, 2026 Room; 11008 (SSNIAB)					
Chair: Prof. Dr. Muhammad Anis Mustaghfirin, ST., MT., Politeknik Perkapalan Negeri Surabaya, Indonesia Co-Chair: Dr. Mohammed Mahbulul Islam, Assistant Professor, IEE, DUET					
Zoom Link: https://bdren.zoom.us/j/98459831358?pwd=STDG1NpxNaqRGUiQjy6SaqRFNkR9ob.1 Meeting ID: 984 5983 1358; Password: icmmpe2026					
S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
34	258	Peak Shaving Application Using Battery Energy Storage System with Solar PV on Smart Utility Grid	S M Shakil*, Alamgir Hossain and <u>Md Mijanur Rahman</u>	Physical	
35	259	Performance Enhancement and Feasibility Assessment of Litre of Light System for Sustainable Daylighting in Bangladesh	<u>Khadiza Akter*</u> , Haque Sheikh Rejoanul, Gazi Lotif, Ruma and Islam Mohammed Mahbulul*	Physical	
36	265	Impact of Flow Rate and Collector Spacing on Electrochemical Conductivity of Carbon Slurry Electrodes	<u>Shah Mohammed Takrim*</u> , Md. Emdadul Hoque, Monjur Mourshed, Abdul Mojid Parvej and Raihan Karal	Physical	
37	271	Investigation of Scalability and Performance Enhancement of Piezoelectrochemical Energy Harvesting Using Commercial and Laboratory-Fabricated Laser-Patterned Lithium-Ion Cells	<u>Md Abdul Aziz*</u> , Ahsan Khan, Naba Karan and Seung Yeon Kang	Virtual	
38	274	Experimental and Numerical Evaluation of Rice Straw-Based Insulation Panels For Energy-Efficient Buildings	<u>Md Sejan Hossain*</u> , Md. Abdul Kader, Md. Almostasim Mahmud and Mohammad Nurul Islam	Virtual	
39	244	An IoT-Driven Intelligent Feeding and Environmental Control System for Sustainable Aquaculture	Shafiun Nahin Shourav, <u>Md. Eestiak Ahmed</u> , Airin Akter* and Zabin Tasmin	Physical	



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Food Engineering

Technical Session – 3: Time: 04:30 PM – 05:30 PM, January 30, 2026 Room; 11006 (SSNIAB)					
Chair: Prof. Dr. Mohammad Washim Dewan, ME, DUET Co-Chair: Dr. Md. Shofiul Azam, Assistant Professor, FE, DUET					
S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
1	007	Food Waste to Bioplastic: A Sustainable Materials Approach	Md. Abtahi Islam Fahim and <u>Md. Rafsan Yeasir</u>	Physical	
2	015	Quantitative Evaluation of Papaya Maturity Through Peel Color and Brix: Establishing Reliable Ripeness Models to Enhance Preservation Safety	Md. Akib Al-Asad* Sajrin Jannat, Md. Zakirul Hasan and <u>Tasaduk Kabir</u>	Physical	
3	017	Green Synthesis and Characterization of Silver Nanoparticles Using <i>Phyllanthus acidus</i> Leaf Extract	<u>Md Shahriar Kabir</u> , Animesh Sarkar* and Md Fuad Al Hasan	Physical	
4	018	Effect of Vacuum-Assisted Osmo-Dehydrofreezing on Frozen Pineapple Quality	<u>Md. Fahim Foyzal Sikder</u> and K. Monalisa*	Physical	



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Presentation- 10 mins; Q/A - 3 mins; Transfer- 2 mins)*

Technical Session – 4: Time: 10:30 AM – 12:00 PM, January 31, 2026 Room; 11004 (SSNIAB)					
Chair: Dr. Md Monir Hossain, Professor, FET, SUST Co-Chair: Mr. Md. Junaaid Khan, Assistant Professor, FE, DUET					
S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
5	075	Smart Biodegradable Chitosan/Graphene Oxide/Anthocyanin Films for Sustainable Food Packaging and Real-Time Freshness Monitoring	<u>Arif Monsur Chowdhury</u> , Md Zohurul Islam* Md Mozammel Hoque	Physical	
6	097	Ultrasound-Assisted Osmotic Dehydration with Edible Coatings of Sweet Potato (<i>Ipomoea batatas</i>)	<u>Fariha Tasnim</u> , Rowshon Ara, K. Monalisa*, M.Z. Islam	Physical	
7	106	Impact of Packaging Materials on the Shelf Life of Air-Fried Banana Chips	Mubasshir Nahid, Md. Abdus Samad, Naimul Hasan Pathan Hasib, <u>Md. Sakibul Islam</u> , Syeda Mehnaj Reza, Md. Anisur Rahman Mazumder, Abir Hossain, Md. Zakirul Hasan and Poly Karmoker*	Physical	
8	110	Cellulose Nanocrystals as Innovative Cryoprotectants in Frozen Tomato Puree Preservation	<u>Fahima Siddiquey</u> and Kamrunnaher Monalisa*	Physical	
9	114	Optimizing Bakery Operations through 5S: An Empirical Case Study	Mehnaz Ahmed, <u>K. M. Mahdiuzzaman Saved</u> , Jewel Rana and Md Nazmus Saqib*	Physical	
10	192	Comparative Analysis of Green and Chemically Synthesized SnO ₂ Nanoparticles using <i>Zingiber officinale</i> Extract: Structural, Morphological, Optical and Antibacterial Evaluation	Showvik Saha, <u>Md. Minhajul Islam</u> , Md. Kamaruzzaman, Abir Raihan, Ariful Bari Rifat, Md. Mintu Ali*	Physical	



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Presentation- 10 mins; Q/A - 3 mins; Transfer- 2 mins)

<p align="center">Technical Session – 4: Time: 10:30 AM – 12:00 PM, January 31, 2026 Room; 11010 (SSNIAB)</p> <p align="center">Chair: Prof. Dr. Md. Kamruzzaman, ME, DUET Co-Chair: Mr. Md. Abir Hossain, Assistant Professor, FE, DUET</p> <p align="center">Zoom Link: https://bdren.zoom.us/j/95068135008?pwd=VrncvNMgwkQ9nDlBjCUiItb54Dzr4L.1 Meeting ID: 950 6813 5008; Password: icmmpe2026</p>					
S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
11	119	Technological Advancements in Precision Fermentation: Applications and Future Directions	<u>Maria Mostari</u> , Jannatul Tasnim, Shuvendhu Malakar, Abdur Rahman, Mahan Sarkar, Kristy Progya Biswas	Virtual	
12	150	Near-infrared Spectroscopy Coupled with Machine Learning Models for Rapid Protein Quantification in Navy Beans	<u>Md. Junaaid Khan*</u> , Sindhu Chaudhary, Annamalai Manickavasagan	Physical	
13	193	Mitigating Odor and Air Quality Impacts from Food-Waste Storage Using Surrogate Emissions Modeling and Operational Optimization	<u>Md. Al-Amin*</u> , Fahima Akter, Nadim Ahmed, Karina Karim, Yasin Edmam Iman, Md Fahad Azom	Physical	
14	196	Tomato & Potato Leaf Disease Classification Using YOLO V11	<u>Riad Mahamud Piash</u> , Md Akash Ali, Amena Akter, and Nayeem Md. Lutful Huq	Physical	
15	275	Antibacterial Properties of Selected Local Foods from the Sylhet Region	Siddatul Islam Sabbir, Maibam Darpan Singha, Md Yasin, Mukta Roy, Md. Shofiul Azam, Anupom Biswas, Suchanda Roy, Mahabub Alam, <u>Md. Amjad Patwary*</u>	Physical	
16	282	Human-inspired Sliding Mode Control for 2D Bipedal Interaction Models: Trajectory Planning and Stability	<u>Raju Mahedi Hasan</u> , Gao Yanan*, Wei Xuemin and Guo Enping	Virtual	



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Industrial & Production Engineering

Technical Session – 1: Time: 11:15 AM – 12:00 PM, January 30, 2026
Room: 11007 (SSNIAB)

Chair: Dr. Mohammad Asaduzzaman Chowdhury, Professor, ME, DUET
Co-Chair: Mr. Rotan Kumar Saha, Assistant Professor, IPE, DUET

Zoom Link: <https://bdren.zoom.us/j/92781769821?pwd=2ZyJivb3RMsywoAozY99YDOJ1XOj3Fp.1>
Meeting ID: 927 8176 9821; Password: icmmpe2026

S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
1	011	E-HRM and Transversal Environmental Practices Pathways to Environmental Sustainability in the Industry 5.0 Era: A Mixed Method Approach	Mafruha Hossain*, <u>Md. Zakir Hosain</u> and Mohammad Thoufiqul Islam	Physical	
2	028	Comparisons among Machine Learning Frameworks for Predicting High Bulk Modulus and DFT Validation of Inorganic Materials	<u>Sabvasachi Roy</u> , Bhupratim Roy and Md. Tanvir Ahmed	Physical	
3	239	Implementation of Green Supply Chain Strategies for Cost Optimization and Environmental Sustainability in Industrial Applications	<u>Nurul Huda</u> *, Md. Hridoy Rahman, Md. Nazmul Hasan, Md. Sajib Sheikh and Md. Touhiduzzaman	Physical	



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(Time Schedule for each presenter:

Presentation- 10 mins; Q/A - 3 mins; Transfer- 2 mins)

Technical Session – 1: Time: 11:15 AM – 12:00 PM, January 30, 2026 Room: 11010 (SSNIAB)					
Chair: Dr. Md. Kamruzzaman, Professor, ME, DUET Co-Chair: Mr. Shaim Mahamud, Assistant Professor, IPE, DUET					
Zoom Link: https://bdren.zoom.us/j/95068135008?pwd=VrncvNMgwkQ9nDIbjCUIItb54Dzr4L.1 Meeting ID: 950 6813 5008; Password: icmmpe2026					
S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
4	099	Role of Big Data Analytics and Block-chain at the Intersecting Route of Supply Chain Strategies, Operations and Resilience: Proof from a PLS-SEM Model	Talat Mahmud Chowdhury and Md. Faiaz Zaman Dehan*	Virtual	
5	100	Influence of Infill Density and Pattern Geometry on the Stress–Strain Behavior of 3D-Printed PLA Structures	Talat Mahmud Chowdhury and Md. Faiaz Zaman Dehan*	Virtual	
6	101	Integrating Blockchain Capabilities with Sustainability and Resilience: A Machine Learning Perspective Using Artificial Neural Network (ANN)	Talat Mahmud Chowdhury and Md. Faiaz Zaman Dehan*	Virtual	



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(Time Schedule for each presenter:

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Technical Session – 2: Time: 03:00 PM – 04:00 PM, January 30, 2026 Room: 11002 (SSNIAB)					
Chair: Prof. Dr. Mohammed Moinul Islam, ME, DUET Co-Chair: Dr. Md Delwar Hossain, Associate Professor, TE, DUET					
S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
7	067	Simulation-Based Design and PLC Control Optimization of a Sliding Station for Industrial Automation	Md. Raseluzzaman, <u>Anamul Haque Akash</u> , Faiaz Ahsan* and Subrota Sarker Rabin	Physical	
8	115	Systemic Quality Transformation in High-Volume Apparel Manufacturing: An Integrated FMEA-Lean Framework for Process Risk Mitigation	Shezan Ahmed, Nasif Morshed and <u>Samiran Sardar</u>	Physical	
9	179	Machine Learning and Deep Learning-Based Predictive Maintenance: A Data-Driven Framework for Manufacturing Systems and Industrial Equipment Reliability	<u>Sagor Kumar Mitra</u>	Physical	
10	166	Comparison of Milling Method for Involute Spur Gear Generation by Parametric Programming in CNC by Flat End Mill	<u>Md. Nafees Bin Shams</u> , Mohammad Mizanur Rahman	Physical	



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(Time Schedule for each presenter:

Presentation- 10 mins; Q/A - 3 mins; Transfer- 2 mins)

Technical Session – 2: Time: 03:00 PM – 04:00 PM, January 30, 2026 Room; 11010 (SSNIAB)					
Chair: Prof. Md. Khaled Khalil, ME, DUET Co-Chair: Mr. Mohammad Shahadath Hossain, IPE, DUET					
Zoom Link: https://bdren.zoom.us/j/95068135008?pwd=VrncvNMgwkQ9nDlBjCUiItb54Dzr4L.1 Meeting ID: 950 6813 5008; Password: icmmp2026					
S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
11	177	IoT-Enabled Real-Time Garment Production Monitoring and Analytics System for Industry 4.0	<u>A K M Faysol Mahmud Rusho*</u> , Mostah Tahmid Ahmed*, Md. Towhidul Islam and Masuma Akter Mounota	Virtual	
12	169	Bridging Materials Design and AI: Explainable Models for Predicting Steel Mechanical Properties	<u>Md. Efatuzzaman Efat*</u> , Sayed Md. Fazle Rabbi and Md. Saiful Islam	Physical	
13	180	Integration of Lean and Industry 4.0 for a smart and sustainable perishable food supply chain: A conceptual framework	<u>Munirah Binte Mijan.</u> Mohammad Afzal Hossain, Md Yasin and Md Monir Hossain*	Physical	
14	197	Simulation-Based Multi-Objective Optimization for Staffing and Bed Allocation in Emergency Department	<u>Niloy Roy</u> , Nawaf Md. Ittamum Bhuiyan, Fawjia Islam, Anikul Islam Rinku, Md Mizanur Rahman, Md. Mamun Ali and Kazi Md. Tanvir Anzum*	Virtual	



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(Time Schedule for each presenter:

Presentation- 10 mins; Q/A - 3 mins; Transfer- 2 mins)

<p align="center">Technical Session – 3: Time: 04:30 PM – 05:30 PM, January 30, 2026 Room; 11007 (SSNIAB)</p> <p align="center">Chair: Dr. Khurshida Sharmin, Professor, ME, DUET Co-Chair: Mr. Shaim Mahamud, Assistant Professor, IPE, DUET</p> <p>Zoom Link: https://bdren.zoom.us/j/92781769821?pwd=2ZvJivb3RMsywoAozY99YDOJ1XOj3Ep.1 Meeting ID: 927 8176 9821; Password: icmmpe2026</p>					
S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
15	281	Sustainability Challenges in Buying House Business in Bangladesh	Md. Asadujjaman*, <u>A.S.M. Shahriar Hossain Alvee</u> , Md. Rasel Rana, Saif-Ibn-Harun and Sk. Toki Tahmid	Physical	
16	203	Advancement in Stereolithography 3D Printing and Future Trends Toward 4D Printing: A Short Review	Rotan Kumar Saha, <u>Md. Saifur Rahman</u> Majumder, Md. Shah Mamunur Rashid*, Md. Mesbah Uddin Saadi, Md. Mahfuzul Islam and Md. Mostafa Hossain Sunny	Physical	
17	205	Multi-Disciplinary Design Optimization of a Reentry Capsule Using Multi Objective Differential Evolution Algorithm	<u>Md. Shaishab Ahmed Shetu</u> *, Tawfiqur Rahman and Ziad Bin Abdul Awal	Physical	
18	218	Causal and Prescriptive Modeling of Inventory Imbalances under Demand-Supply Uncertainty: A Case Study from the Bangladeshi Manufacturing Sector	Md. Polash Mia*, <u>Md. Sajib Sheikh</u> , Sheikh Rakib and Nur Md Alif Ul Islam	Physical	



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Technical Session – 4: Time: 10:30 AM – 12:00 PM, January 31, 2026 Room: 11005 (SSNIAB)					
Chair: Dr. Md. Zakir Hosain, Associate Professor, BUBT Co-Chair: Ms. Nilufa Yeasmin, Assistant Professor, IPE, DUET					
S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
19	220	Comparative Study of Binary and Multi-Class Approaches for Radiographic Detection of SMAW Weld Defects Using Transfer Learning	Md Abdullah Mia, Nur Md Alif Ul Islam, Amlan Das and Omer Tahsin*	Physical	
20	232	Investigation of Mechanical Properties of Carbon Fiber Standard Resin Composites Using SLA-Based Additive Manufacturing	Md. Rubel Miah*, Md. Kamal Hossain, Md. Polash Mia, Sovon Das , Mohammad Rashidul Hassan and Rotan Kumar Saha	Physical	
21	238	An Integrated ABC–VEN and NSGA-II–TOPSIS Framework for Multi-Objective Spare Parts Inventory Optimization under Demand Uncertainty and Budget Constraints	Md. Sajib Sheikh*, Md. Polash Mia , Sheikh Rakib, Md. Rubel Miah, Md Rakibul Islam, Nurul Huda and Nur Md. Alif Ul Islam	Physical	
22	047	Investigation on the Mechanical Properties of 3D printed Composites Fabricated by Dual Extrusion-Based FDM Printer	Khondoker Safin Kaosar Saad , Tasfia Saba, Niaz Mohammad Zahin, Abdul Hasib Hasan Zayed, Adib Bin Rashid*, Abdul Moudood	Physical	
23	253	Reducing Hand-Arm Vibration through Anthropometric-Based Ergonomic Design of a Power-Driven Hand Drill	M. I. H. Khan , T. M. Payel, M. R. Anwar, N. A. Islam, R. Afrin, M. M. Rahman, A. R. M. H. Rashid and M. Nasim*	Physical	



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(Time Schedule for each presenter:

Presentation- 10 mins; Q/A - 3 mins; Transfer- 2 mins)

Technical Session – 1: Time: 11:15 AM – 12:00 PM, January 30, 2026 Room; 6004A (SSNIAB)					
Chair: Prof. Dr. Mohammed Moinul Islam, ME, DUET Co-Chair: Dr. Mohammad Rashidul Hassan, Assistant Professor, IPE, DUET					
Zoom Link: https://bdren.zoom.us/j/93880718282?pwd=Pbq6UooE6PWDrFiPefgeBKYf3a9Svc.1 Meeting ID: 938 8071 8282; Password: icmmpe2026					
S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
24	237	Simulation Based Comparison of Subsidy and Threshold Resectorization Policies to Improve Healthcare Waiting Times and Quality	<u>Partheeb Mostafiz</u> and Kazi Md. Tanvir Anzum*	Virtual	
25	260	Strategic Reduction of Sample Approval Delays to Enhance Shipment Timeliness in RMG Manufacturing	<u>Md. Monirul Islam Rajib</u> , Md. Nurul Haque Samdany, Shadman Quamar Mahir and Mahbuba Sultana Mukta	Virtual	
26	268	Project Scheduling and Material Ordering Problem under Constrained Resources Considering Carbon Emission	<u>Md. Limonur Rahman Lingkon</u> *, Md. Asadujjaman and Rupok Islam Avi	Physical	



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(Time Schedule for each presenter:

Presentation- 10 mins; Q/A - 3 mins; Transfer- 2 mins)

Materials & Metallurgical Engineering

Technical Session – 1: Time: 11:15 AM – 12:00 PM, January 30, 2026
Room; 11006 (SSNIAB)

Chair: Prof. Dr. Md. Sanaul Rabbi, ME, CUET
Co-Chair: Raduanul Islam Mridul, Assistant Professor, MME, DUET

S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
1	022	Advances in Self-Healing Materials for Structural Engineering	Md. Abtahi Islam Fahim and <u>Md. Rafsan Yeasir</u>	Physical	
2	026	Influence of Molybdenum Content on the Mechanical Properties and Strength-Ductility Balance of a Novel Fe-C-Ti-V Alloy System	<u>Md Ruhul Amin*</u> , Md. Arefin Kowser and Mohammad Asaduzzaman Chowdhury	Physical	
3	038	Polymer-Based Solid Electrolytes: Opportunities and Challenges for Room-Temperature Solid-State Batteries	Md. Abtahi Islam Fahim, Md. Rakibujjaman, Md. Maruf Ripon, <u>Md. Tanvir Islam Emon</u> and Md. Rasel Islam	Physical	



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Presentation- 10 mins; Q/A - 3 mins; Transfer- 2 mins)

Technical Session – 1: Time: 11:15 AM – 12:00 PM, January 30, 2026 Room; 11009 (SSNIAB)					
Chair: Dr. Md. Shahidul Islam, Professor, ME, KUET Co-Chair: Tasratur Reaj Neha, Assistant Professor, MME, DUET					
S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
4	049	Mechanical Behaviour of Silica Filled Glass Fiber Reinforced Composite	Himel Ahmed* , Md. Foisal Hossain, Muhammed Sohel Rana and Md. Shafiu Ferdous	Physical	
5	064	Emerging Role of Mxenes in Thermoelectric Energy Conversion: Opportunities and Challenges	Kazi Mamunur Rahman Rifat*, Tamjid Hasan Anonno, Md. Farhan Jakib , Md. Mahmudul Hasan	Physical	
6	076	Synergistic Effects of Silica Nanoparticles on JUCO Fiber Reinforced Composites: A Mechanical, Microstructural Study	Md Rakib Rana Ashik* , Md. Foisal Hossain, Muhammed Sohel Rana and Md. Shafiu Ferdous	Physical	

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(Time Schedule for each presenter:

Presentation- 10 mins; Q/A - 3 mins; Transfer- 2 mins)

Technical Session – 2: Time: 03:00 PM – 04:00 PM, January 30, 2026 Room; 11009 (SSNIAB)					
Chair: Prof. Dr. Mohammad Shahed Hasan Khan Tushar, ME, RUET Co-Chair: Mr. Md. Irfan Khan, Assistant Professor, MME, DUET					
S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
7	088	Dielectric Properties of Cold-Sintered Na ₂ WO ₄ -Ni _{0.5} Zn _{0.5} Fe ₂ O ₄ Ceramic Composites	Mohammad Shariar Zaman* , Shah Alam, Shad Inquiad Mim, Aninda Nafis Ahmed and Kazi Md. Shorowordi	Physical	
8	091	Preparation of Bioactive Polymer Composite Films on ZK41 Magnesium Alloy Surface	Yusuf Ali* Md. Mostafizur Rahman, Md Monjurul Haque, Kazi Abdullah-Al-Mamun and Md. Ali Imran	Physical	
9	112	Creep Behavior of Low-Density Polyethylene, Polypropylene & Their Blends at Constant Strain Rate: A Model-based Study	Rahnuma Nuraia Mumu* , Shariful Hossain and Md. Akhtarul Islam	Physical	
10	159	Comparative Analysis of TIG And MIG Welding on Similar SS304 Stainless Steel; Influence on Microstructure, Mechanical and Chemical Properties	Abdul Ahad, Md. Shah Mamunur Rashid, Tasratur Reaj Neha* , Md. Irfan Khan, Tasnim Alam Sayedi, Md. Erfanul Hasan Sakib and Ruman Uddin	Physical	

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(Time Schedule for each presenter:

Presentation- 10 mins; Q/A - 3 mins; Transfer- 2 mins)

Technical Session – 2: Time: 03:00 PM – 04:00 PM, January 30, 2026 Room; 11005 (SSNIAB)					
Chair: Dr. Shahajada Mahmudul Hasan, Professor, ME, RUET Co-Chair: Mr. Md. Jahidul Islam, Assistant Professor, MME, DUET					
S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
11	167	Experimental Evaluation of Fatigue Performance of Aluminium Alloy 6061-T6 via Multi-Particle Coating	<u>Md. Rakib Kazi*</u> , Md. Arefin Kowser, Md. Ariful Islam, Md. Abu Rayhan, Abdul Ahad and Quazi Md. Zobaer Shah	Physical	
12	168	Development of Ag-N Co-Doped TiO ₂ Multilayer Thin Films on FTO for Enhanced Conductivity and Photocatalytic Degradation of Organic Dye Pollutants	<u>Md. Masud Khan,</u> Tasratur Reaj Neha*, Syed Kamruzzaman Lipon, Md. Zakaria Hossain, Md Junayed Ali, Anik Talukder, Md. Irfan Khan, Ummey Rayhan and Md. Hasnain Mustak	Physical	
13	178	River Sand Based Autoclaved Aerated Concrete (AAC) Blocks: A Superior Material for Sustainable Building Construction in Bangladesh	<u>Md. Badsha Alim</u> and Md. Arif Hossain	Physical	
14	194	Cost-Effective Ceramic Tile Formulations Using Locally Available Clays and Controlled Feldspar Additions	<u>Showvik Saha,</u> Mahir Amer Mishul*, Md. Mehedi Hasan Hemel, Redowan Ahmed and Md. Rejuan Ahmed	Physical	



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(Time Schedule for each presenter:

Presentation- 10 mins; Q/A - 3 mins; Transfer- 2 mins)

Technical Session – 3: Time: 4:30 PM – 5:30 PM, January 30, 2026 Room; 11010 (SSNIAB)					
Chair: Dr. Md. Mizanur Rahman, Professor, ME, CUET Co-Chair: Mr. Raduanul Islam Mridul, Assistant Professor, MME, DUET					
Zoom Link: https://bdren.zoom.us/j/95068135008?pwd=VrncvNMgwkQ9nDIbjCUIItb54Dzr4L.1 Meeting ID: 950 6813 5008; Password: icmmpe2026					
S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
15	172	Influence of Sn Content on the Microstructural & Mechanical Performance of Al-Zn-Sn Alloy	<u>Golam Mostafa Nipu</u> , Md Shaheen Meya, Sobuj Kumar, Md Mehidi Hasan*	Virtual	
16	222	Numerical Creep Analysis of Ni-based Alloys Using the Norton Creep Law and Kachanov-Rabatrov Creep Damage Model	<u>Riasad Kabir</u> * and Md. Ashraful Islam	Physical	
17	223	Design and Development of a Noble Progressive Die for Carbon Structural Steel-50 Component Manufacturing	<u>Molla Ariful Haque</u> *, Tofael Ahmed and Md. Mostafizur Rahman	Physical	
18	269	Effect of Tempering Temperature on Microstructure, Hardness, and Electrochemical Corrosion Behavior of AISI 420 Martensitic Stainless Steel	<u>Ara Gradiniar</u> <u>Rizkyta</u> * and Suwarno	Virtual	



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(Time Schedule for each presenter:

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Technical Session – 4: Time: 10:30 AM – 12:00 PM, January 31, 2026 Room: 11009 (SSNIAB)					
Chair: Dr. Ummey Rayhan, Professor, Chemistry, DUET Co-Chair: Mr. Md. Mintu Ali, Assistant Professor, CME, RUET					
S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
19	226	Recycling Aluminum Foil Waste Into Alumina (Al_2O_3) for Photocatalytic Treatment of Industrial Dyes	Abu Saleh Md. Jafor, Md. Irfan Khan, <u>Md. Rajib Hamam</u> , Gour Chandro Barmon, Tasratur Reaj Neha* and Md. Shofiqul Islam	Physical	
20	245	Valorization of High Purity Silica from Rice Husk: A Comparative study between Calcination and Hydrothermal Methods	Tonmoy Paul, Md. Saiful Islam, <u>Md. Zahid</u> , Tasratur Reaj Neha and Md. Irfan Khan*	Physical	
21	264	Influence Of Solution Treatment, Ageing, and Overageing on the Mechanical Properties and Microstructure of Cast AL-MG-SI Alloy (AA6061)	<u>Md. Akhtaruzzaman Hero</u> , Md. Rajib Hamam, Mizanur Rahman, Md. Murad Ali, Md. Raduanul Islam Mridul*, Mohammad Zoynal Abedin	Physical	
22	266	The Performance Penalty of Untreated Jute in Recycled Denim–Epoxy Hybrid Composites	<u>Main Uddin Apu</u> , Tasratur Reaj Neha* , Emon Ahasan, Md. Rakibul Islam and Md. Irfan Khan	Physical	
23	267	Influence of Heat Treatment on Mechanical and Corrosion Performance of Al-25Zn-10Ti Alloy for Marine Applications	Bishal Chakma and <u>MS Rabbi</u> *	Physical	



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(Time Schedule for each presenter:

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Textile Engineering

Technical Session – 1: Time: 11:15 AM – 12:00 PM, January 30, 2026
Room: 6017 (SSNIAB)

Chair: Prof. Dr. Md. Abdus Shahid, Professor, TE, DUET
Co-Chair: Mr. Ripon Kumar Prasad, Assistant Professor, TE, DUET

Zoom Link: <https://bdren.zoom.us/j/97648161077?pwd=K43nEALig9hqOj7nbvdYowAzN4uh35.1>
Meeting ID: 976 4816 1077; Password: icmpe2026

S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
1	012	Fabrication of Garment Cutting Waste Reinforced Waste Polypropylene Composite for Structural Applications	<u>M Abu Darda</u> *, M Ashnaim Bari, M Monjurul Islam Pranto, Mohammad Faizur Rahman, Ayub Nabi Khan, M A Rahman Bhuiyan	Physical	
2	051	Extraction of Cellulase Enzyme from Waste Bottle Gourd Peel and Application to Knit Cotton Fabric for Biopolishing	Naeem Ahmmed, <u>Abdullah Ibn Asheque</u> *, Md. Shadman Ahmed Khan	Physical	
3	219	Characterization and Adsorption Behavior of Debdaru Seed Powder (DSP) for Crystal Violet Dye Removal from Wastewater	<u>Milon Biswas</u> , Md. Hazrat Ali, Shamir Das, Mushfika Anjum Maisha, Anamul Hoque Bhuiyan*	Physical	

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(Time Schedule for each presenter:

Presentation- 10 mins; Q/A - 3 mins; Transfer- 2 mins)

Technical Session – 2: Time: 3:00 PM – 4:00 PM, January 30, 2026 Room: 6017 (SSNIAB)					
Chair: Dr. Shahjalal Khandaker, Professor, TE, DUET Co-Chair: Mr. Md. Mehedi Hasan, Assistant Professor, TE, DUET					
Zoom Link: https://bdren.zoom.us/j/97648161077?pwd=K43nEALig9hqOj7nbvdYowAzN4uh35.1 Meeting ID: 976 4816 1077; Password: icmmp2026					
S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
4	118	Effect of Temperature on Dye Uptake of 100% Cotton Fabric with Reactive dye	Ritu Dutta, Dibbo Das* , Sujoy Paul, Joy Karon Shuvo, Samin Yeasar, MD. Nadim Abdullah and Jannatul Noor	Virtual	
5	125	Mechanical and Moisture Diffusion Behavior of Nano Silica Filled Unidirectional Jute Fiber Reinforced Polymer Composites	Shakil Khan* , Md. Foisal Hossain, Muhammed Sohel Rana and Md Shafiul Ferdous	Physical	
6	144	Fabrication of PVA nanofibrous Mat Loaded with Peperomia Pellucida Leaf Extract for Biomedical Applications	Md. Sakib Hosen, Amanullah, Alid Mahmud, Md. Masum Hossain, Saeed Hasan and Mohammad Zakaria*	Physical	
7	184	Degradation of Dyes in Textile Wastewater Using Catalyst-Assisted High-Voltage DC Discharge	Md. Abdul Halim* , Shayla Haque Nazer and Ruma	Physical	

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(Time Schedule for each presenter:

Presentation- 10 mins; Q/A - 3 mins; Transfer- 2 mins)

Technical Session – 3: Time: 4:30 PM – 5:30 PM, January 30, 2026 Room: 6017 (SSNIAB)					
Chair: Prof. Dr. Muhammad Abdur Rahman Bhuiyan, Professor, TE, DUET Co-Chair: Mr. Md. Shablu Khan, Assistant Professor, TE, DUET					
Zoom Link: https://bdren.zoom.us/j/97648161077?pwd=K43nEALig9hgOj7nbvdYowAzN4uh35.1 Meeting ID: 976 4816 1077; Password: icmpe2026					
S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
8	191	Analyzing the Problems of Production Department that Hampers the Schedule of TNA Calendar Causing Delays in Lead Time	Sadia Mehrin* and <u>Meherab Hossain Chowdhury Sajid</u>	Physical	
9	199	Development and Characterization of Cotton-Nylon-Lycra Hybrid Ring Spun Yarn for Stretchable Textiles	<u>Md. Likunuzzaman</u> , Md. Abdus Shahid, Md. Harun-Or-Rashid and Md Delwar Hossain*	Physical	
10	200	Hybrid Sheet from Modal Fibers with a Thin Layer of Polypropylene for Potential Applications in Packaging	<u>Kohinur Sharna</u> , Md. Abdus Shahid, Imam Hossain, Md Mahbubay Rabbani and Md Delwar Hossain*	Physical	
11	213	Establishment of the Relation Between Dye Uptaken by Fibre and Dye Left Out in the Solution after Dyeing	Md. Abdul Hannan, <u>Md. Rakibul Hasan</u> *, Samsuzzaman Sheikh, Anamul Haque Bhuiyan, Imam Hossain, Md. Golam Mortuza Limon and Nour Md. Mofiz Uddin Khan	Physical	

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(Time Schedule for each presenter:

Presentation- 10 mins; Q/A - 3 mins; Transfer- 2 mins)

<p align="center">Technical Session – 4: Time: 10:30 AM – 12:00 PM, January 31, 2026 Room: 6017 (SSNIAB)</p> <p align="center">Chair: Dr. Mohammad Zakaria, Professor, TE, DUET Co-Chair: Dr. Md Delwar Hossain, Associate Professor, TE, DUET</p> <p align="center">Zoom Link: https://bdren.zoom.us/j/97648161077?pwd=K43nEALig9hgOj7nbvdYowAzN4uh35.1 Meeting ID: 976 4816 1077; Password: icmmpe2026</p>					
S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
12	068	Fabrication, Characterization, And Comparative Analysis of Coir/Jute/Banana-Fiber Reinforced Epoxy-Based Hybrid Composite	<u>Naim Uddin</u> *, Foysal Ahmed, Ismail Hossain and Md. Afsar Ali	Physical	
13	224	Heat Resistance Properties of Fiber-Reinforced Composite Panels with Absorptive and Reflective Surface for Structural Applications	<u>Ashnaim Bari</u> *, M Abu Darda, M A Rahman Bhuiyan and Lijing Wang	Physical	
14	229	Investigation of Dyeing Equilibrium for Mordant-Free Guava Leaf On Viscose-Linen and Viscose-Cotton Blends	Md.Abdul Hannan, <u>Zinia Yasmin</u> *, Anamul Hoque Bhuiyan, Atiqul Kashem Rajib and Shamsuzzaman Sheikh	Physical	
15	235	Impact Response of ArmoX-50T Plate Using FEM	<u>Md. Kamrul Islam Bipul</u> * and Md. Shahidul Islam	Physical	
16	241	Improved Antibacterial Efficacy and Moisture Management in a Coaxial Electrospun PVA Nano Membrane Functionalized with Betel Leaf Extract and Superabsorbent Polymer	<u>M Firoz Hossain</u> *, Ayub Ali, M A Rahman Bhuiyan and Md. Mohebbullah	Physical	
17	058	Recent Advances in MXene-Based Nanocomposites for Wastewater Purification and Water Treatment: A Review	Md. Abtahi Islam Fahim, Md. Sihabul Islam Arpon, Md. Rasel Islam, Md. Saiful Islam Shanto, <u>Kazi Mamunur Rahman</u> * and Md. Mehedi Hasan Manik	Physical	



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(Time Schedule for each presenter:

Presentation- 10 mins; Q/A - 3 mins; Transfer- 2 mins)

Mechanical Engineering

Technical Session – 1: Time: 11:15 AM – 12:00 PM, January 30, 2026 Room: 11001 (SSNIAB)					
Chair: Dr. Md. Mahbubul Alam, Professor, ME, CUET Co-Chair: Dr. Anamul Hoque Bhuiyan, Professor, TE, DUET					
S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
1	010	Effects of Using Different Hybrid-nanofluids on the Thermal Performance of a Shell-and-Tube Heat Exchanger: A Numerical Approach	K.M. Toukid Tahmid, Mohammad Sultan Mahmud , Md. Touhidul Islam and Md. Mehedi Hasan Sourobh	Physical	
2	014	Performance and Emission Analysis of Diesel Engine Using Diesel and Pyrolytic Plastic Oil with TiO ₂ and Al ₂ O ₃ Nanoparticles	Md. Hedayetullah Fahim , Niloy Sarker, S.M. Mushfiqur Rahma and Md. Alamgir Hossain*	Physical	
3	188	Computational Investigation of Winglet Effects on Fixed-Wing UAV Performance under Martian Atmospheric Conditions	Md. All Amin Sumon* , Rafiqul Islam Reja, Md. Sajedul Islam and Md. Mostaqur Rahman	Physical	

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Technical Session – 1: Time: 11:15 AM – 12:00 PM, January 30, 2026 Room: 11003 (SSNIAB)					
Chair: Dr. Khurshida Sharmin, Professor, ME, DUET Co-Chair: Mr. Md. Mahbubur Rahman, Assistant Professor, ME, DUET					
Zoom Link: https://bdren.zoom.us/j/98717284817?pwd=XBmSksWfnapW8G5rUh7fJYajTrcWxS.1 Meeting ID: 987 1728 4817; Password: ICMMP2026					
S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
4	024	Machine Learning Model for Predicting Mechanical Behavior of I-Beams with Varying Dimension	Tayaf Mahamud, Serniabat Wasit Tawassaf*, Tasfia Akter Sara, <u>Md. Isa Salekin</u> and Hamedur Rahman	Physical	
5	027	Numerical Investigation of Drag and Fuel Consumption Reduction of a Sport Utility Vehicle (SUV)	Md. Shamim Rayhan, A. N.M Mominul Islam Mukut, <u>Nahid Hasan Jihad</u> , Rashik Ahmmad, ZahidAhsan	Physical	
6	029	Comparison of Experimental Drag and Lift Coefficients for NACA 4412 Airfoil: Effects of a Rotating Cylinder with and without Ridges	<u>Iram Mustavi Chowdhury*</u> and Ashef Iftihaj Munir	Virtual	

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(Time Schedule for each presenter:

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Technical Session – 1: Time: 11:15 AM – 12:00 PM, January 30, 2026 Room: 11002 (SSNIAB)					
Chair: Prof. Md. Hasanuzzaman, Math, KUET Co-Chair: Mr. Md. Shariful Alam Emon, Assistant Professor, ME, DUET					
S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
7	030	Robo worm: A Bio-Inspired Robot for Energy-Efficient Navigation in Confined Spaces	<u>Jahin Tasfia Arthy</u> * and Jahid Emon	Physical	
8	031	Design and Fabrication of an Autonomous Floating Water Waste Cleaning Robot Using GPS Locator	Tasnimul Hasan, <u>Israt Jahan Chowdhury</u> *, Md. Minhazul Islam Shadin and S. A. Faruk	Physical	
9	034	Heat Transfer by Laminar Flow Through Tubular Pipe of Various Circular Cut Twisted Tape Inserts	<u>Readanul Hasan Remon</u> , Md. Moniruzzaman Bhuyan*, Mashky Chowdhury Surja, Md. Monirul Islam and Ujjwal Kumar Deb	Physical	

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(Time Schedule for each presenter:

Presentation- 10 mins; Q/A - 3 mins; Transfer- 2 mins)

Technical Session – 2: Time: 3:00 PM – 4:00 PM, January 30, 2026 Room: 11003 (SSNIAB)					
Chair: Prof. Dr. Nayeem Md. Lutful Huq, ME, DUET Co-Chair: Mr. Saifullah Mahmud, Assistant Professor, ME, DUET					
Zoom Link: https://bdren.zoom.us/j/98717284817?pwd=XBmSksWfnapW8G5rUh7fJYajTrcWxS.1 Meeting ID: 987 1728 4817; Password: ICMMPE2026					
S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
10	035	Optimal Configuration of Integrated Bio-Inspired Humpback Whale Flippers Shaped Metallic Plates in a Cross-Flow Heat Exchanger : A CFD based Comparative Analysis	Sammam Rahman*, Rudra Barua, Anurag Nandi and Anindya Dutta	Virtual	
11	036	Influence of Duct Geometry on Airflow and Acoustic Control in No-Frost Refrigerators	Md. Sohan Hossain and Dipayan Mondal*	Physical	
12	042	The Effect Of Ignition Timing Variation on the Performance of the MUB-5 Six-stroke Engine with Electronic Fuel Injection System	Muhammad Faiz Luthfianto* , Eko Siswanto and Nurkholis Hamidi	Virtual	
13	044	Simulation and Experimental Analysis of A Direct Drive-in Wheel Motor	Kh. Ferdous Wahid , MD Fazley Rabbi, Jannatul Tasnim, Abdur Rahman, Shuvendhu Malaker, Mahan Sarkar, Kristy Progya Biswas and Shahajada Mahmudul Hasan	Virtual	

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(Time Schedule for each presenter:

Presentation- 10 mins; Q/A - 3 mins; Transfer- 2 mins)

Technical Session – 2: Time: 3:00 PM – 4:00 PM, January 30, 2026 Room: 11001 (SSNIAB)					
Chair: Prof. Dr. Md. Hasanuzzaman, Mathematics, KUET Co-Chair: Mr. Md. Mahbubur Rahman, Assistant Professor, ME, DUET					
S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
14	046	Numerical Analysis of Au and Ag Nanoparticle-Enhanced Diabetic Blood Flow in the Carotid Artery	Sultan Mahmud , Mhaezie Nhelle R. Sexon, Jaime Honra and Tasnin Hasan Anto	Physical	
15	052	Performance Analysis of Annular Fins in Cylindrical Pipe Under Various Convection Modes at Different Inclinations	Al-Amin , Samsul Islam, Mohammad Zoynal Abedin*, Jahirul Islam and Md. Zihan Babu	Physical	
16	061	Optimisation of Design and Comparative Thermo-Mechanical Analysis of IC Engine Piston Made of Conventional Alloys and Al-SiC Composites	Helal Uddin, Md. Rasel Ahmed * and Md. Rabiul Islam Sarker	Physical	
17	073	Effect of Heat Generation on MHD Free-Convective Transport of Micropolar Fluid past a Porous Plate: An Unsteady Analysis	Md. Abul Kalam Azad , Md. Hasibul Haque, Ashish Barmon and Md. Hasanuzzaman*	Physical	



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(Time Schedule for each presenter:

Presentation- 10 mins; Q/A - 3 mins; Transfer- 2 mins)

Technical Session – 2: Time: 3:00 PM – 4:00 PM, January 30, 2026 Room: 11007 (SSNIAB)					
Chair: Prof. Dr. Md. Mizanur Rahman, ME, CUET Co-Chair: Dr. Md. Rashed Mia, Associate Professor, ME DUET					
Zoom Link: https://bdren.zoom.us/j/92781769821?pwd=2ZyJivb3RMsvwAozY99YDOJ1XOj3Fp.1 Meeting ID: 927 8176 9821; Password: icmpe2026					
S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
18	062	Design and Analysis of Agriculture Development of an Automated Irrigation System	Helal Uddin , Md. Rasel Ahmed*, Mahmudul Hasan and Ashrafuzzaman Sohag	Virtual	
19	045	Explainable AI-Guided Feature Selection for Predicting Dynamic Elastic Modulus in Sedimentary Rocks	Ahmed Elghoul, Mohammad Islam Miah *, Sumaiya Binte Shahadat and Travis Wiens	Virtual	
20	078	Predicting Maintenance Needs of Small Diesel Generators Using Operational Data and Machine Learning	Md Iftekharul Haque, Shahriar Mohammad Salauddin Chowdhury, Mohammad Najmul Hoq, Monabbir E Zaman*, and R U M Rashadul Hasan	Physical	
21	090	Role of Geomechanical Properties in Machine Learning-Based Prediction of Internal Friction Angle for Rock Stability Analysis	Ahmed Elghoul, Md Maruf Alam, Mohammad Islam Miah * and Muhammad Zaka Emad	Virtual	



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(Time Schedule for each presenter:

Presentation- 10 mins; Q/A - 3 mins; Transfer- 2 mins)

Technical Session – 3: Time: 04:00 PM – 05:30 PM, January 30, 2026 Room: 11001 (SSNIAB)					
Chair: Prof. Dr. Md. Mostafizur Rahman, ME, DUET Co-Chair: Mr. Saifullah Mahmud, Assistant Professor, ME, DUET					
S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
22	085	Performance Analysis of a Magnetorheological (MR) Fluid Damper and Controlling Vibration using PD Controller	<u>Md. Fahim Shahriar</u> , Md. Sadman Sami, Mhia Md. Zaglul Shahadat, Farhan Shahriar Rikto and Md. Rakibul Islam	Physical	
23	093	Electrochemical Performance Evaluation of Zn-Al-Sr Layered Double Oxide (LDO) as Anode for Zn-Ion Batteries	Md. Nurul Islam, Md. Fardeen Abrar, M Shahriar Iqbal, <u>Mayaz Hasan Tanim</u> and Md. Mostafijur Rahman Shojol	Physical	
24	094	Numerical Analysis of Thermal Hydraulic Performance in a Staggered Tube Bank with Al ₂ O ₃ -Water Nanofluid	<u>Tasnin Hasan Anto</u> , Ashfaq Mahmud Khan, Souharda Shankar and Sultan Mahmud	Physical	
25	098	Autonomous Medicine Delivery Robot Using Binary-Coded Navigation for Infection-Prone and Cognitively Impaired Patients	Mahia Mahjabin, Md. Shakil Al Kajem Mondal and <u>Md Shohanur Rahman</u>	Physical	



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(Time Schedule for each presenter:

Presentation- 10 mins; Q/A - 3 mins; Transfer- 2 mins)

Technical Session – 3: Time: 4:30 PM – 5:30 PM, January 30, 2026 Room: 11003 (SSNIAB)					
Chair: Prof. Dr. Md. Arefin Kowser, ME, DUET Co-Chair: Mr. Md Shohanur Rahman, Assistant Professor, ME, KUET					
Zoom Link: https://bdren.zoom.us/j/98717284817?pwd=XBmSksWfnapW8G5rUh7fJYajTrcWxS.1 Meeting ID: 987 1728 4817; Password: ICMMP2026					
S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
26	103	Structural and Aerodynamic Assessment of S500 Quadcopter Frames Using Carbon and Glass Fiber Composites via FEA and CFD Simulation	<u>Shraban Sattwik</u> and Nirupom Chowdhury Nirjon	Physical	
27	104	Investigation of Thermal Efficiency and Fouling Dynamics of Enhanced Tubes in Water-Cooled Condenser	<u>Al-Amin</u> , Md Sajedul Islam, Md. Noor Uddin, Saddam Hossen and Mohammad Zoynal Abedin*	Physical	
28	111	Design and Performance Analysis of a Heat Exchanger for Exhaust Gas Heat Recovery in Automobiles	<u>Md. Abdullah-Al-Mamun</u> , Md. Nahidul Islam Himel and Debasish Sarker	Virtual	
29	128	Experimental Study and Development of Real-Time Railway Gate Automation Control System for Enhanced Safety	K. M Mahedi Hassan Fahim, <u>Md. Ali Imran Khan</u> * and Rifat-Ul-Alam	Physical	



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(Time Schedule for each presenter:

Presentation- 10 mins; Q/A - 3 mins; Transfer- 2 mins)

Technical Session – 3: Time: 4:30 PM – 5:30 PM, January 30, 2026 Room: 11002 (SSNIAB)					
Chair: Prof. Dr. Mohammad Asaduzzaman Chowdhury, ME, DUET Co-Chair: Mr. Md. Mahbubur Rahman, Assistant Professor, ME, DUET					
S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
30	138	Characterization of a Hybrid Silicon-Carbide Graphite Anode with Cobalt–Tin Powder for Lithium-Ion Battery	<u>Md. Tasdid Hasan</u> , Md. Shakil Hossen, Md. Mahbubur Rahman and Khurshida Sharmin*	Physical	
31	142	AI-Driven Predictive Maintenance and Real-Time Gear Condition Monitoring Using Vibration Data	Shahajada Mahmudul Hasan, <u>Abdullah Adnan Abir</u> *, Md. Najmul Islam Shawon and Md. Imran Hasan	Physical	
32	143	Assessing the Geothermal Energy Landscape in Bangladesh: Opportunities, Challenges, and Strategic Solutions	Md. Mostafa Hossain Sunny, Md. Mesbah Uddin Saadi*, Mohammad Rashed Mia, Md. Mahfuzul Islam, <u>Md. Omer Faruk</u> and Md. Arefin Kowser	Physical	
33	153	Transient CFD Analysis of Operational Parameters on a Closed-Loop Pulsating Heat Pipe (CLPHP) Performance	<u>Afsar Mahmud</u> *, Muhammad Jawad Zin Noor and Mohammad Ilias Inam	Physical	



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(Time Schedule for each presenter:

Presentation- 10 mins; Q/A - 3 mins; Transfer- 2 mins)

Technical Session – 3: Time: 4:30 PM – 5:30 PM, January 30, 2026 Room: 11009 (SSNIAB)					
Chair: Dr. Md. Shahidul Islam, Professor, ME, KUET Co-Chair: Mr. Shadman Ahmed Khan, Assistant Professor, BUBT					
Zoom Link: https://bdren.zoom.us/j/92781769821?pwd=2ZyJivb3RMsywAozY99YDOJ1XOj3Fp.1 Meeting ID: 927 8176 9821; Password: icmme2026					
S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
34	157	Heat and Frictional Lossless Braking: An Electromagnetic Braking System	Mahmud Hasan Touhid , Asif Kabir, Md. Saiful Islam, Shariar Hossain Sunny, Rajib Ahmed and Md. Mahbubur Rahman	Physical	
35	161	Enhancing Energy Efficiency in Conventional Automobiles Through Regenerative Braking Technology	Abdul Alim* , Al-Amin and Md Kamruzzaman	Physical	
36	163	Simulation-Based Optimization of HVAC Systems for Tropical Urban Buildings Using Design Builder	Sakina Akbar Naima, Mahfuzur Rahman* , Nadim Ahmed, Bibek Himalaya, Edwin Akandwanaho and H. M. Jahin Mahmud Nabo	Physical	
37	181	Computational Investigation of Throat Diameter and Divergent Half-Angle Effects on Flow Field and Performance in a Conical Nozzl	Oleullah Ole , Tasmia Tabassume Oishi and Md. Abdus Salam	Physical	



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(Time Schedule for each presenter:

Presentation- 10 mins; Q/A - 3 mins; Transfer- 2 mins)

Technical Session – 4: Time: 10:30 AM – 12:00 PM, January 31, 2026 Room: 11003 (SSNIAB)					
Chair: Prof. Dr. Md. Sanaul Rabbi, ME, CUET Co-Chair: Mr. Mahadi Hasan Masud, Associate Prof., ME, RUET					
Zoom Link: https://bdren.zoom.us/j/98717284817?pwd=XBmSksWfnapW8G5rUh7fJYajTrcWxS.1 Meeting ID: 987 1728 4817; Password: ICMMPE2026					
S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
38	003	Numerical Comparison of the Aerodynamic Characteristics Between Two Dragonfly Wing Sections for MAVs Application	<u>Syed Ridwan Ahmed*</u> , Mohammad Ilias Inam and Adittya Das	Virtual	
39	176	Numerical Study of the Improvement of the Aerodynamic Performance for Newly Modified NACA 4412 Baseline Shapes Utilizing both Riblets and Dimples Insertion	<u>Arup Das*</u> , Neloy Kumar Das, Syeda Tanjila Sarwar, Khairun Nasrin Rimi, Nafis Rawnak Rafid and Mohammad Rejaul Haque	Virtual	
40	189	Analysis for Heat Transfer Enhancement in a Parabolic Trough Solar Collector Incorporating a Greenhouse Effect Mechanism and Nanofluids	<u>Rafiqul Islam*</u> , Shakhawat Hossain, JH Siam and BK Roy	Physical	
41	204	Comparative Analysis of Heat Sink Designs for Optimized Thermal Management	Nayan Chandra Roy and <u>Ummul Wara Zinatunnesa</u>	Virtual	
42	208	Experimental Study of Backup Cooling Duration in a District Cooling System with Thermal Energy Storage Using Water and an Ethylene Glycol-Water Mixture	<u>Tofael Ahmed</u> and Hasan Mohammad Mostofa Afroz	Physical	
43	215	Enhancement of Energy Density and Heat Transfer of a Glycol-Based Thermal Energy Storage System for Cold-Chain Application	<u>Sagor Chandra Sheel</u> and Hasan Mohammad Mostofa Afroz	Physical	



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30 - 31 January 2026**



**Venue: DUET, Gazipur, Bangladesh
Mode: Hybrid (Physical and Virtual)**

(Time Schedule for each presenter:

Presentation- 10 mins; Q/A - 3 mins; Transfer- 2 mins)

Technical Session – 4: Time: 10:30 AM – 12:00 PM, January 31, 2026 Room: 11001 (SSNIAB)					
Chair: Prof. Md. Khaled Khalil, ME, RUET Co-Chair: Prof. Dr. Shafiqul Islam, TE, DUET					
S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
44	228	Enhancing Energy Efficiency in District Cooling System Using Ethylene Glycol-Water Mixtures	Mansur Alahi , Hasan Mohammad Mostofa Afroz, Md. Anowar Hossain*, Md Habibur Rahman and Md Hafizur Rahman	Physical	
45	231	Experimental Analysis of Exhaust Gas Opacity and Absorption in Vehicles Equipped and Non-Equipped Exhaust Gas Recirculation (EGR) System	Zahid Ahsan*, Samsul Islam , Md Wahiduzzaman Shanto, Md Shamim Rayhan, Arif Md Shahed Iqbal, Subrata Saha, A.N.M. Mominul Islam Mukut and Mohammad Zoynal Abedin	Physical	
46	233	Simulation-Based Optimization of Egress Plan Under Commercial Fire Incidents in Bangladesh	Md. Saiful Islam , Mohammad Zoynal Abedin*, Samsul Islam, Shohag Mia, Hafez Ahmed and Md. Erfanul Hasan Sakib	Physical	
47	242	Advances in CFD-Based Optimization and Baffle Design Strategies for Shell and Tube Heat Exchangers: A Comprehensive Review	Md. Saadbin Chowdhury* , Mohammad Zoynal Abedin and Md. Saiful Islam	Physical	
48	249	Evaluation and Mitigation of Deadly Fire Incidents in the Commercial Sector Using AI: Bangladesh Perspective	Samsul Islam , Mohammad Zoynal Abedin*, Shohag Mia, Hafez Ahmed, Md. Saiful Islam and Saddam Hossen	Physical	
49	276	A Comparative Study: Enhancement of Thermal Conductivity in Microchannel Heat Sinks Using Mono-Ternary Nanofluids	Joy Ganguly , Mohammad Sultan Mahmud*, Md Radwanul Kabir, Muhammad Jawad Zin Noor and Sudipta Saha	Physical	

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Technical Session – 4: Time: 10:30 AM – 12:00 PM, January 31, 2026 Room: 11002 (SSNIAB)					
Chair: Dr. Mohammad Sultan Mahmud, Professor, ME, KUET Co-Chair: Dr. Muhammad Abdur Rashid, Professor, TE, DUET					
S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
50	254	Effect on Heat Transfer due to Pipe-volume Reduction by Ellipsoid inserts	Mashky Chowdhury Surja, <u>Md. Moniruzzaman Bhuyan*</u> , Maimonul Karim Chowdhury and Ujjwal Kumar Deb	Physical	
51	255	A Comparative Study on Enhancing the Thermal Performance of a Micro-Tesla Valve Using Pin-Fins	<u>Md. Pulak Bhuiyan,</u> Muhaammaad and HM Toufik Ahmed Zisan*	Physical	
52	262	Numerical Analysis of Newtonian and non-Newtonian Blood Flow Behavior in Veins Using Computational Fluid Dynamics	<u>Jahirul Islam*</u> , Md. Zihan Babu, Saifullah Mahmud, Mohammad Rashed Mia, Selim Reza, Abdul Ahad, Tasnim Alam Sayedi and Biplov Kumar Roy	Physical	
53	263	A Comprehensive Solution for Countries Suffering from Drought and Flood	<u>Md Anwar Hossain, PE</u> and Md. Kamruzzaman*	Physical	
54	270	Aerodynamic Performance Enhancement of a Heavy-Duty Truck Using Computational Investigation	<u>Khondakar Sami Ahamad,</u> Mohammad Shahed H K Tushar and Tanvirul Islam	Physical	
55	272	Numerical Analysis of Bubble Transit and Splitting Dynamics in Three-Dimensional Arterial Bifurcations	<u>Chinmoy Deb Nath*</u> , MM Roshid, Md. Shamim Ali and Nusrat Jahan Imu	Physical	

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(Time Schedule for each presenter:

Presentation- 10 mins; Q/A - 3 mins; Transfer- 2 mins)

<p align="center">Technical Session – 4: Time: 10:30 AM – 12:00 PM, January 31, 2026 Room: 11007 (SSNIAB)</p> <p align="center">Chair: Dr. Mohammad Shahed Hasan Khan Tushar, Professor, ME, RUET Co-Chair: Mr. Saddam Hossen, Assistant Professor, ME, DUET</p> <p>Zoom Link: https://bdren.zoom.us/j/92781769821?pwd=2ZyJivb3RMsywAozY99YDOJ1XOj3Fp.1 Meeting ID: 927 8176 9821; Password: icmme2026</p>					
S. N.	Paper ID	Paper Title	Authors	Presentation Mode	AIP (Y/N) and Marks (out of 10)
56	234	Aspen Plus Simulation for the Recycling of Used Engine Oil	<u>Marwa Asgar Tanha*</u> , Shafayat Ibn Mosharraf Eshat, Mohammad Mizanur Rahman and Sadia Islam	Virtual	
57	277	Performance Enhancement of NACA 4412 at Low Reynolds Number via Trailing Edge Slot Optimization: A CFD Study	<u>Md. Istiak Ahmed*</u> , Abul Hossain and Mim Mashrur Ahmed	Physical	
58	278	Hydrodynamic Performance Analysis of a Bio-inspired Hydrofoil	<u>Navem Zaman Saimoon</u> , Mim Mashrur Ahmed and Mahadi Hasan Masud1*	Virtual	
59	279	Multi-Objective Optimization of Vertical Axis Wind Turbine Blades for Improved Aerodynamic Performance: An Experimental Approach	Mim Mashrur Ahmed*, Mahadi Hasan Masud, <u>Mohammad Raihan</u> and Mhia Md. Zaglul Shahadat	Physical	
60	273	Numerical Investigation of Basalt Fiber Reinforced Concrete Using Finite Element Method	<u>Mutasim Billa Muin</u> , Rokonorzzaman, Md. Golam Rabbi Molla and S. M. Enamul Hoque Yasin	Virtual	
61	280	Air-Side Pressure-Drop and Friction-Factor Characteristics of a Microchannel Heat Exchanger Using R454C Refrigerant under Condensation Conditions	<u>Md Main Uddin</u> , Md Khairul Bashar Shovon, Kimiyasu Yoshikawa, Keishi Kariya and Akio Miyara*	Virtual	