



SCHEDULE OF PROGRAM

(Technical Session)

ICMIEE 2018 Conference Program

Date: December 22, 2018

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| 3:00PM-6:00PM | Registration |
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Date: December 23, 2018

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| 8:30 AM~ | Registration | | | |
| 09:45AM-11:00AM | Inaugural Session Venue: Student Welfare Center, KUET Chief Guest: Prof. Abdul Mannan, Chairman, University Grants Commission of Bangladesh Special Guest: Prof. Dr. Quazi Sazzad Hossain, Vice-Chancellor, KUET Organizing Chair: Prof. Dr. Mihir Ranjan Halder, Department of Mechanical Engineering, KUET | | | |
| 11:00AM-11:15AM | Coffee Break | | | |
| 11:15AM-01:00PM | Plenary Session I: Chair: Prof. Dr. Md. Nawsher Ali (Dean, Faculty of Science and Technology, North Western University, Khulna. 1. Nanomembranes for Sustainable Fresh Water Production Prof. Dr. Muhammad Mustafizur Rahman (Chair, Dept. of Mechanical Engineering, College of Engineering, Wichita State University USA.) 2. Aerodynamics and Hydrodynamics in Sports Prof. Dr. Firoz Alam (School of Aerospace, Mechanical and Manufacturing Engineering, RMIT University, Melbourne, Australia.) Venue: Seminar Room, ME 201 (1F, ME Building) | | | |
| 01:00PM-02:00PM | Lunch Break | | | |
| 02:00PM-03:45PM | Parallel Sessions (I, II, III, IV) | | | |
| | Technical Session I Venue: Seminar Room ME 201 (1F) Fluid Mechanics Chair: Prof. Dr. Firoz Alam (RMIT University, Australia) Co-chair: Dr. Md. Arifuzzman Paper No.: 109, 147, 185, 236, 237, 256, 319, 322 | Technical Session II Venue: Room No. ME 308 (2F) Heat and Mass Transfer 1 Chair: Prof. Dr. Khandkar Aftab Hossain (KUET, Bangladesh) Co-chair: Dr. Md. Sultan Mahmud Paper No.: 110, 113, 130, 134, 187, 204, 209, 321, 329 | Technical Session III Venue: Room No. ME 310(2F) Energy Engineering Chair: Prof. Dr. A. N. M. Mizanur Rahman (KUET, Bangladesh) Co-chair: Dr. Md. Abdullah Al Bari Paper No.: 105, 149, 152, 181, 183, 222, 223, 229, 326 | Technical Session IV Venue: Room No. ME 312 (2F) Industrial Engineering 1 Chair: Prof. Dr. Mohammad Iqbal (SUST, Bangladesh) Co-chair: Prof. Md. Golam Kader Paper No.: 111, 141, 148, 165, 258, 263, 283, 309 |
| 03:45PM-04:15PM | Coffee and Prayer Break | | | |
| 04:15PM-05:15PM | Parallel Sessions (V, VI, VII, VIII) | | | |
| | Technical Session V Venue: Seminar Room, ME 201 (1F) Fluid Mechanics and Machinery Chair: Dr. Zahir Uddin Ahmed (KUET, Bangladesh) Co-chair: Dr. Kazi Mostafijur Rahman Paper No.: 104, 172, 184, 228, 331 | Technical Session VI Venue: Room No. ME 308 (2F) Aerodynamics Chair: Prof. Dr. Mohammad Mashud (KUET, Bangladesh) Co-chair: Dr. Abdullah Al-Faruk Paper No.: 125, 203, 249, 259, 273 | Technical Session VII Venue: Room No. ME 310 (2F) Heat and Mass Transfer 2 Chair: Prof. Dr. Muhammad Mustafizur Rahman (Wichita State University USA) Co-chair: Dr. Mohammad Ilias Inam Paper No.: 144, 164, 201, 227, 320 | Technical Session VIII Venue: Room No. ME 312 (2F) Textile Engineering Chair: Prof. Dr. Mohammad Abdul Jalil (KUET, Bangladesh) Co-chair: Dr. Md. Ismail Hossain Paper No.: 120, 208, 215, 303, 304 |
| 5:15PM-6:00PM | Prayer Break | | | |
| 6:30PM-9.30PM | Conference dinner Venue: Hotel City Inn Ltd., Khulna. | | | |

Date: December 24, 2018

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| 9:00AM~ | Registration | | | |
| 9:00AM-11:00AM | Parallel Session (IX, X, XI, XII) | | | |
| | Technical Session IX Venue: Seminar Room, ME 201 (1F) Manufacturing and Production Engineering Chair: Dr. Sabuj Mallik (University of Derby, Derby, UK) Co-chair: Dr. Md. Abdul Hasib Paper No.: 156, 171, 233, 252, 253, 254, 255, 316,318, 327 | Technical Session X Venue: Room No. ME 308 (2F) Energy Science & Engineering Chair: Dr. Md. Tawhidul Islam Khan (Saga University, Japan) Co-chair: Dr. Md. Rafiquzzaman Paper No.: 128, 140, 150, 193, 219, 310, 314, 325, 333, 334 | Technical Session XI Venue: Room No. ME 310 (2F) Industrial Engineering 2 Chair: Prof. Dr. Md. Kutub Uddin (KUET, Bangladesh) Co-chair: Dr. Kazi Arif-Uz-Zaman Paper No.: 153, 170, 244, 260, 261, 289, 298, 299, 305 | Technical Session XII Venue: Room No. ME 312 (2F) Power Plant & Energy Engineering Chair: Prof. Dr. Mihir Ranjan Halder (KUET, Bangladesh) Co-chair: Dr. Md. Hasan Ali Paper No.: 107, 151, 176, 190, 194, 218, 241, 285, 311 |
| 11:00AM-11:30AM | Coffee Break | | | |
| 11:30AM-01:00PM | Parallel Session (XIII, XIV, XV, XVI) | | | |
| | Technical Session XIII Venue: Seminar Room, ME 201 (1F) Robotic and Mechatronics Chair: Dr. M. Habib Rahman (University of Wisconsin, USA) Co-chair: Dr. Md. Helal-An-Nahiyan Paper No.: 234, 266, 306, 307, 312, 313, 315 | Technical Session XIV Venue: Room No. ME 308 (2F) Leather & Chemical Engineering Chair: Dr. Md. Abul Hashem (KUET, Bangladesh) Co-chair: Dr. Md. Elias Uddin Paper No.: 248, 274, 287, 288, 294, 317 | Technical Session XV Venue: Room no. ME 310 (2F) Materials and Composites Chair: Prof. Dr. Md. Shahidul Islam (KUET, Bangladesh) Co-chair: Dr. Md. Shariful Islam Paper No.: 206, 216, 268, 278, 284, 308, 330 | Technical Session XVI Venue: Room no. ME 312 (2F) Related Topics Chair: Prof. Dr. Mia Sobahan (KUET, Bangladesh) Co-chair: Dr. Azizur Rahman Paper No.: 205, 212, 301, 323, 324, 328, 332 |
| 01:00PM-2:00PM | Prayer and Lunch Break | | | |
| 2:00PM-3.45PM | Plenary Session II: Chair: Prof. Dr. Abul Mukid Mohammad Mukaddes (Dean, School of Applied Sciences and Technology Shahjalal University of Science and Technology, Sylhet) <ol style="list-style-type: none"> 1. Acoustic Emission Measurement as Adaptive Biomarker in Integrity Analysis of Knee Osteoarthritis Dr. Md. Tawhidul Islam Khan (Faculty of Science and Engineering, Department of Advanced Technology Fusion, Saga University, Japan) 2. Engineering the Reliability into Products under Harsh Environments Dr. Sabuj Mallik (Head of Mechanical and Manufacturing Engineering, University of Derby, Derby, UK) 3. Non-Singular Second Order Terminal Sliding Mode Incorporating Time Delay Estimation for Uncertain Exoskeleton Robot Dr. M. Habib Rahman (Director of the BioRobotics Lab, Mechanical and Biomedical Engineering, University of Wisconsin-Milwaukee, USA) Venue: Seminar Room, ME 201 (1F, ME Building) | | | |
| 3:45-4:30 | Closing Ceremony Venue: Seminar Room, ME 201 (1F, ME Building) | | | |
| 4:30PM-4:50PM | Coffee and Prayer Break | | | |

Plenary Session I
23rd December 2018, Sunday, 11:15 AM- 1:00 PM (Seminar Room, ME 201, 1F, Mechanical Building)
Chair: Prof. Dr. Md. Nawsher Ali (Dean, Faculty of Science and Technology, North Western University, Khulna.)

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| P1 | ICMIEE18-KN01 | Nanomembranes for Sustainable Fresh Water Production <i>Prof. Dr. Muhammad Mustafizur Rahman</i> Bloomfield Chair Professor and Department Chair, Department of Mechanical Engineering, College of Engineering, Wichita State University, USA. |
| P2 | ICMIEE18-KN02 | Aerodynamics and Hydrodynamics in Sports <i>Prof. Dr. Firoz Alam</i> Program Director, Offshore Mechanical Engineering, School of Engineering(Aerospace, Mechanical& Manufacturing) RMIT University, Australia |

Plenary Session II
24th December 2018, Monday, 2:00 PM- 3:45PM (Seminar Room, ME 201, 1F, Mechanical Building)
Chair: Prof. Dr. Abul Mukid Mohammad Mukaddes (Dean, School of Applied Sciences and Technology
 Shahjalal University of Science and Technology, Sylhet)

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| P5 | ICMIEE18-KN03 | Acoustic Emission Measurement as Adaptive Biomarker in Integrity Analysis of Knee Osteoarthritis <i>Dr. Md. Tawhidul Islam Khan</i> Associate Professor in Advanced Technology Fusion, Faculty of Science and Engineering, Saga University, Japan |
| P6 | ICMIEE18-KN04 | Engineering the Reliability into Products under Harsh Environments <i>Dr. Sabuj Mallik</i> Associate Professor in Mechanical Engineering and Head of Mechanical & Manufacturing Engineering Discipline, University of Derby, Derby, UK |
| P7 | ICMIEE18-KN05 | Non-Singular Second Order Terminal Sliding Mode Incorporating Time Delay Estimation for Uncertain Exoskeleton Robot <i>Dr. Mohammad Habibur Rahman</i> Director of the BioRobotics Lab, Department of Mechanical and Biomedical Engineering, University of Wisconsin-Milwaukee, USA. |

Technical Session I

Fluid Mechanics

23rd December 2018, Sunday, 2:00 PM- 3:45 PM, Seminar Room, ME 201 (1F, Mechanical Building)

Chair: Prof. Dr. FirozAlam(RMIT University, Australia) **Co-chair:**Dr. Md. Arifuzzman (KUET, Bangladesh)

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| 1.1 | ICMIEE18-109 | <p>Boundary Layer Flow of Micropolar Fluid over a Stretching Conical Surface with Magnetic Effect <i>M. Ali¹, M. A. Alim², R. Nasrin³, and Md. Delowar Hossain⁴</i> ^{1,4} Department of Mathematics, Chittagong University of Engineering & Technology, Chittagong-4349, BANGLADESH ^{2,3} Department of Mathematics, Bangladesh University of Engineering & Technology, Dhaka-1000, BANGLADESH</p> |
| 1.2 | ICMIEE18-147 | <p>Numerical Study of Pumping Power and Volumetric Flow Rate Advantage of SiC-Water Nanofluid through a Channel <i>Md. Insiat Islam Rabby, Md. Farzad Hossai, Md. Ehsanul Hasan, Md. Abdullah Al-Amin, and A.K.M Sadrul Islam</i> Department of Mechanical Engineering, Military Institute of Science & Technology, Dhaka, BANGLADESH</p> |
| 1.3 | ICMIEE18-185 | <p>Prediction of Resistance, Sinkage and Trim of a Bulk Carrier by Computational Fluid Dynamics Method <i>Md. Rakibul Hasan, Md. Abdur Rahim, Mohammad Sharier Islam, and Md. Mashiur Rahman</i> Department of Naval Architecture & Marine Engineering, Bangladesh University of Engineering & Technology, Dhaka, BANGLADESH</p> |
| 1.4 | ICMIEE18-236 | <p>Numerical Study of Heat Transfer and Flow Characteristics in a Rectangular Channel with Rib Type Turbulent Promoters <i>Sunanda Kumar Saha, Md Mosarof Hossain, and Dr. Mohammad Ali</i> Department of Mechanical Engineering, Bangladesh University of Engineering & Technology, Dhaka, BANGLADESH</p> |
| 1.5 | ICMIEE18-237 | <p>Effect of Tip Speed Ratio on the Flow Characteristics of Single-bladed Darrieus Wind Turbine <i>Md. Tanvir Khan, Mohammad Ilias Inam, and Abdullah Al-Faruk</i> Department of Mechanical Engineering, Khulna University of Engineering & Technology, Khulna, BANGLADESH</p> |
| 1.6 | ICMIEE18-256 | <p>Numerical Simulation and Analysis of Supersonic Flow over a Circular Cylinder <i>Shawon Kumar Saha</i> Department of Mechanical Engineering, Bangladesh University of Engineering & Technology, Dhaka-1000, BANGLADESH</p> |
| 1.7 | ICMIEE18-319 | <p>2D CFD Analysis of a Straight-bladed Vertical Axis Wind Turbine using General Grid Interface Method <i>Farah Aqilah¹, Mazharul islam¹, Franjo Juretic², and Waqar Asrar³</i> ¹Department of Mechanical and Production Engineering, Ahsanullah University of Science and Technology, Dhaka-1208, Bangladesh ²Creative Fields Ltd., DragutinaGolika 63, 10000 Zagreb, Croatia ³Department of Mechanical Engineering, International Islamic University Malaysia, 50728 Kuala Lumpur, Malaysia</p> |
| 1.8 | ICMIEE18-322 | <p>Performance of Heat Transfer of a Plain Tube Fitted With V-Shaped Twisted Tape Inserts of Copper and Stainless Steel Material for Turbulent Flow <i>Mostafizur Rahman, Mohamed Abdur Razzaq, Abdullah Al Noman, and Jamal Uddin Ahamed</i> Department of Mechanical Engineering, Chittagong University of Engineering & Technology, Chittagong-4349, BANGLADESH</p> |

Technical Session II

Heat and Mass Transfer 1

23rd December 2018, Sunday, 2:00 PM- 3:45PM (Room No.ME 308, Mechanical Building)

Chair: Prof. Dr. Khandkar Aftab Hossain(KUET, Bangladesh)**Co-chair:** Dr. Md. Sultan Mahmud (KUET, Bangladesh)

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| 2.1 | ICMIEE18-110 | Effect of Nano Particle and Aspect Ratio in Natural Convection Heat Transfer in a Rectangular Enclosure: A Numerical Analysis <i>Md. Shariful Islam, and Mohammad Ilias Inam</i> Department of Mechanical Engineering, Khulna University of Engineering & Technology, Khulna-9203,BANGLADESH |
| 2.2 | ICMIEE18-113 | Numerical Investigation of Laminar Convective Heat Transfer and Friction Factor of a Pipe by using Al₂O₃-Water Nanofluid <i>Md. Insiat Islam Rabby, S.A.M. Shafwat Amin, Sazedur Rahman, and A.K.M Sadrul Islam</i> Department of Mechanical Engineering, Military Institute of Science & Technology, Dhaka, BANGLADESH |
| 2.3 | ICMIEE18- 130 | Numerical Study of a Stand-alone Flat Plate Solar Water Heater using Rectangular Flow Channel with Fin <i>F. Rashid, M.R.I Sarker, S .S. Tuly, J. Ferdous, and R. A. Beg</i> Department of Mechanical Engineering, Rajshahi University of Engineering & Technology, Rajshahi-6204, BANGLADES |
| 2.4 | ICMIEE18-134 | Effect of Inertia and Gravity on Three Dimensional Non-isothermal Film Stability <i>Kazi Rumman Islam, and Zahir. U. Ahmed</i> Department of Mechanical Engineering, Khulna University of Engineering & Technology, Khulna-9203,BANGLADESH |
| 2.5 | ICMIEE18-187 | Heat Storage System: A Modern Way to Reuse & Recycle Energy to Reduce Thermal Pollution <i>Md. Fahel Bin Noor, Ahsan Habib, and Bijoy Mallick</i> Department of Mechanical Engineering, Chittagong University of Engineering & Technology, Chittagong-4349, BANGLADESH |
| 2.6 | ICMIEE18- 204 | Numerical Solution of One-Dimensional Heat Equation by Crank Nicolson Method <i>Md. Amirul Islam¹, S.M. Kamal Hossain², and Abdur Rashid³</i> ^{1,2} Department of Mathematics, Uttara University Dhaka-1230, Bangladesh ³ Department of Mathematics, Jahangirnagar University, Savar, Dhaka-1342, BANGLADESH |
| 2.7 | ICMIEE18- 209 | Enhancement of Tube Side Heat Transfer using Twisted Stainless Steel Angle <i>Md. Tarif Raihan</i> Fire Safety Engineer, Stichting Bangladesh Accord Foundation, Dhaka-1212, BANGLADESH |
| 2.8 | ICMIEE18- 321 | Comparative Numerical Analysis of Heat Transfer between Nonporous and Porous Cylindrical Fins <i>Farida Ahmed Koly, Abu Raihan Ibna Ali, Moham Ed Abdur Razaq, and Mostafizur Rahman</i> Department of Mechanical Engineering, Chittagong University of Engineering & Technology, Chittagong-4349,BANGLADESH |
| 2.9 | ICMIEE18-329 | Experimental Investigations of Phase Change Material (PCM) Based Pin Finned Heat Sinks for Cooling Electronic Equipment <i>Md. Ponir Hossain Talukder, and Kazi Afzalur Rahman</i> Dept. of Mechanical Engineering, Chittagong University of Engineering & Technology, Chittagong,BANGLADESH |

Technical Session III

Energy Engineering

23rd December 2018, Sunday, 2:00 PM- 3:45PM (Room No. ME 310, Mechanical Building)

Chair: Prof. Dr. A. N. M. Mizanur Rahman (KUET, Bangladesh) **Co-chair:** Dr. Md. Abdullah Al Bari (KUET, Bangladesh)

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| 3.1 | ICMIEE18- 105 | Design, Construction and Performance Test of a Box Type Solar Cooker <i>Al Aman, Syed Istiaq Mahmud, Md. Nawsher Ali Moral, Jamshedul Islam, and Shahinur Rahman</i> Department of Mechanical Engineering, Khulna University of Engineering & Technology, Khulna-9203, BANGLADESH |
| 3.2 | ICMIEE18- 149 | Barriers against the Development of Solar Cooker & its Solution <i>Tamal Chowdhury¹, Hemal Chowdhury², Piyal Chowdhury³, Abul Hasnat¹, Birol Barua¹, and Rabiul Islam¹</i> ¹ Department of Electrical & Electronic Engineering, Chittagong University of Engineering & Technology, Chittagong-4349, BANGLADESH ² Department of Mechanical Engineering, Chittagong University of Engineering & Technology, Chittagong-4349, BANGLADESH ³ Chittagong Collegiate School & College, Chittagong, BANGLADESH |
| 3.3 | ICMIEE18-152 | Analysis of a Solar PV system for Aeration System in Aquaculture <i>Tamal Chowdhury¹, Hemal Chowdhury², Piyal Chowdhury³, Abul Hasnat¹, Birol Barua¹, and Rabiul Islam¹</i> ¹ Department of Electrical & Electronic Engineering, Chittagong University of Engineering & Technology, Chittagong, BANGLADESH ² Department of Mechanical Engineering, Chittagong University of Engineering & Technology, Chittagong, BANGLADESH ³ Chittagong Collegiate School & College, BANGLADESH |
| 3.4 | ICMIEE18-181 | Agricultural Scenario and Solar Irrigation System of Bangladesh <i>M. S. Islam, Md. Bakhtier khalzi, Sabbir Ahmed, and Pronob Das</i> Department of Mechanical Engineering, Rajshahi University of Engineering & Technology, Rajshahi-6204, BANGLADESH |
| 3.5 | ICMIEE18-183 | An Automatic Solar Tracking System using Programmable Logic Controller <i>M.E. Hoque, F. Rashid, S. Shahriar, and M.K. Islam</i> Department of Mechanical Engineering, Rajshahi University of Engineering & Technology, Rajshahi-6204, BANGLADESH |
| 3.6 | ICMIEE18-222 | Experimental Investigation on Three Different Natural Convection Cabinet Solar Dryer for Food Drying Applications <i>Md. Imrul Islam¹, Mehedi Hasan Tusar¹, Amir Hamza Limon¹ and Majedul Islam^{1,2}</i> ¹ Dept. of Mechanical Engineering, Chittagong University of Engineering & Technology, BANGLADESH ² Post-Doctoral Research Fellow, Queensland University of Technology, Brisbane, Australia |
| 3.7 | ICMIEE18-223 | Dust Effect on Glass Transmittance and Mirror Reflectance of Solar Collectors <i>Mehedi Hasan Tusar, Amir Hamza Limon, Abdullah Al Noman, and Goutam Das</i> Dept. of Mechanical Engineering, Chittagong University of Engineering & Technology, Chittagong, BANGLADESH |
| 3.8 | ICMIEE18-229 | Development of Surface Mounted Concentrator for Photovoltaic Solar Cell <i>Md Anwar Hossain¹, and YiHong Zhang^{1,2}</i> ¹ State key University, Ministry of Education, P. R. China ² College of Information Science & Technology, Donghua University, Shanghai, P. R. China |
| 3.9 | ICMIEE18-326 | Cleaning of Accumulated Dust Particle of a Flat Plate Solar Collector <i>Amir Hamza Limon, Muhammad Mostafa Kamal Bhuiya, Mostafizur Rahman, and Majedul Islam</i> Department of Mechanical Engineering, Chittagong University of Engineering & Technology (CUET), Chittagong 4349, BANGLADESH |

Technical Session IV

Industrial Engineering 1

23rd December 2018, Sunday, 2:00 PM- 3:45PM (Room No. ME 312, Mechanical Building)

Chair: Prof. Dr. Mohammad Iqbal (SUST, Bangladesh) **Co-chair:** Prof. Md. Golam Kader (KUET, Bangladesh)

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| 4.1 | ICMIEE18-111 | <p>Implementation of 9S Approach in a Jute Industry: A Case Study <i>Md. Sumon Rahman¹, Md. Ariful Islam², Md. Tahiduzzaman¹, and Md. Shohanur Rahman¹</i> ¹Department of Industrial and Production Engineering, Jessore University of Science & Technology, Jessore-7408, BANGLADESH ²Business Administration Discipline Khulna University, Khulna - 9208, BANGLADESH</p> |
| 4.2 | ICMIEE18-141 | <p>Integrated Approach of Ergonomics and MCDM into Truck Drivers' Seat Comfort: A Case Study in Bangladesh <i>Pobitra Halder^{1,2}, Chitrakleha Karmaker², and Mustafizur Rahman²</i> ¹Chemical and Environmental Engineering, School of Engineering, RMIT University, Melbourne, Victoria 3001, Australia ²Department of Industrial and Production Engineering, Jessore University of Science and Technology, Jessore-7408, BANGLADESH</p> |
| 4.3 | ICMIEE18-148 | <p>Optimization of an Emergency Relief Supply Model using Genetic Algorithm along with a Framework for Structuring Humanitarian Logistics Distribution Network <i>Shekh Rasel, Md. Mahmudul Hasan Bhuiyan, and Khairun Nahar</i> Department of Industrial & Production Engineering, Rajshahi University of Engineering & Technology, Rajshahi, BANGLADESH</p> |
| 4.4 | ICMIEE18-165 | <p>Drive Cycle of Heavy Vehicles in Dhaka City: A Case Study <i>M. Fahim Asif Khan, Mirza Farhan Hasin, Md. Jubayer Hossain, Anjan Goswami, and Mozammel Mia</i> Department of Mechanical and Production Engineering, Ahsanullah University of Science and Technology, Dhaka-1208, BANGLADESH</p> |
| 4.5 | ICMIEE18-258 | <p>Metal Surface Defect Inspection through Deep Neural Network <i>Md. Fantacher Islam, and Md. Mahbubur Rahman</i> Department of Industrial Engineering and Management, Khulna University of Engineering & Technology, Khulna-9203, BANGLADESH</p> |
| 4.6 | ICMIEE18-263 | <p>Planning for Budget Allocation in Digital Marketing <i>Md. Mahbubur Rahman, Al-Muktadir, and Samiya Rahman</i> Department of Industrial Engineering and Management, Khulna University of Engineering & Technology, Khulna-9203, BANGLADESH</p> |
| 4.7 | ICMIEE18-283 | <p>Ergonomic Analysis of Bangladeshi Train Passengers <i>Sajia Afrin Shifa, and Md. Golam Kibria</i> Department of Industrial Engineering and Management, Khulna University of Engineering & Technology, Khulna-9203, BANGLADESH</p> |
| 4.8 | ICMIEE18-309 | <p>Dmaic Approach for Process Improvement: Improving Fabric Width Shrinkage of Basic T-Shirt <i>Swarnalekha Khandker¹, and Tasin Us Sakib²</i> ¹Department of Industrial Engineering and Management, Khulna University of Engineering & Technology, Khulna-9203, BANGLADESH ²Department of Industrial and Production Engineering, Rajshahi University of Engineering & Technology, Rajshahi-6204, BANGLADESH</p> |

Technical Session V

Fluid Mechanics and Machinery

23rd December 2018, Sunday, 4:15 PM- 5:15PM, (Seminar Room, ME 201, Mechanical Building)

Chair: Dr. Zahir Uddin Ahmed (KUET, Bangladesh) **Co-chair:** Dr. Kazi Mostafijur Rahman (KUET, Bangladesh)

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| 5.1 | ICMIEE18-104 | The Effect of Swirl on Array of Turbulent Impinging Jets <i>Sudipta Debnath, Md Habib Ullah Khan, Zahir U. Ahmed, and Md. Mahmudul Alam</i> Department of Mechanical Engineering, Khulna University of Engineering & Technology, Khulna-9203, BANGLADESH |
| 5.2 | ICMIEE18-172 | Performance Analysis of Nylon Made Vortex Tube <i>Tirtha Sen Gupta¹, Radif Uddin Ahmed¹, Hemal Chowdhury¹, Tamal Chowdhury², and Md. Tazul Islam¹</i> ¹ Department of Mechanical Engineering, Chittagong University of Engineering & Technology, Chittagong, BANGLADESH ² Department of Electrical & Electronic Engineering, Chittagong University of Engineering & Technology, Chittagong, BANGLADESH |
| 5.3 | ICMIEE18-184 | Development of Water Transport Network in the Northern Region of Dhaka City <i>Abu Sumaiya¹, Nazmul Alam Nahid¹, Md. Mashiur Rahaman¹, Khandaker Rasel Hasan² and ABM Mahbubar Rashid³</i> ¹ Department of Naval Architecture and Marine Engineering, Bangladesh University of Engineering and Technology, Dhaka-1000, BANGLADESH ² Department of Port and Shipping Management, Bangabandhu Sheikh Mujibur Rahman Maritime University, Dhaka, BANGLADESH ³ Metacenter Ltd., Dhaka-1000, BANGLADESH |
| 5.4 | ICMIEE18-228 | CFD Analysis of Two-Phase (Oil-Water) Flow in Horizontal Pipe <i>Md. Abir Hasan, and Mohammad Ilias Inam</i> Department of Mechanical Engineering, Khulna University of Engineering & Technology, Khulna-9203, BANGLADESH |
| 5.5 | ICMIEE18-331 | Productivity Enhancement of Single Basin Solar Still using Al₂O₃ Nanoparticles <i>Muhammad Sharif Uddin, Md. Mehdi Masud Talukder, and Md. Tansirul Islam</i> Dept. of Mechanical Engineering, Chittagong University of Engineering & Technology, Chittagong, BANGLADESH |

Technical Session VI

Aerodynamics

23rd December 2018, Sunday, 4:15 PM- 5:15 PM (Room No.: ME108, Mechanical Building)

Chair: Prof. Dr. Mohammad Mashud (KUET, Bangladesh) Co-chair: Dr. Abdullah Al-Faruk (KUET, Bangladesh)

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| 6.1 | ICMIEE18-125 | CFD Study on Aerodynamic Effect of NACA 2412 Airfoil as Rear Wing on a Sports Car <i>Shamudra Dey¹, and Ranabir Saha²</i> ¹ Department of Mechanical Engineering, Shahjalal University of Science & Technology, Sylhet-3114, BANGLADESH ² Department of Mechanical Engineering, Bangladesh University of Engineering & Technology, Dhaka-1000, BANGLADESH |
| 6.2 | ICMIEE18-203 | Experimental Study on NACA 2415 Airfoil with Rotating Cylinder at Leading Edge <i>Nashidul Islam, Md. Mamun Islam, Mohammad Mashud, and Abdullah Al Faruk</i> Department of Mechanical Engineering, Khulna University of Engineering & Technology, Khulna-9203, BANGLADESH |
| 6.3 | ICMIEE18-249 | Numerical Study on Aero-Acoustic Behavior for Flow over a Supercritical Airfoil at Low Reynolds Number <i>Syed Angkan Haider, Tanveer Islam Joy, and Md. Fazlur Rahman Akanda</i> Department of Mechanical Engineering, Bangladesh University of Engineering & Technology, Dhaka-1000, BANGLADESH |
| 6.4 | ICMIEE18-259 | Aerodynamic Shape Optimization of Vehicles using CFD Simulation <i>Ahmed Zawad Ul Hoque, Mohammad Ariful Islam, and Md. Ahatashamul Haque Khan Shuvo</i> Department of Mechanical Engineering, Khulna University of Engineering & Technology, Khulna-9203, BANGLADESH |
| 6.5 | ICMIEE18-273 | Numerical Analysis of Energy Harvesting on a Wind Turbine Blade by using Piezoelectric Material <i>Md. Faidid Ahasan, Mohammad Fuad Hassan, and Dipayan Mondal</i> Department of Mechanical Engineering, Khulna University of Engineering & Technology, Khulna-9203, BANGLADESH |

Technical Session VII

Heat and Mass Transfer 2

23rd December 2018, Sunday, 4:15 PM- 5:15 PM (Room No.: ME 310, Mechanical Building)

Chair: Prof. Dr. Muhammad Mustafizur Rahman (Wichira State University, USA) **Co-chair:** Dr. Mohammad Ilias Inam (KUET, Bangladesh)

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| 7.1 | ICMIEE18-144 | Investigation of the Effect of Sample Geometry on Drying Energy Requirement of Plant-Based Food Materials <i>Md. Washim Akram¹, and Mohammad U. H. Joardder²</i> ¹ Department of Mechanical Engineering, Bangladesh Army University of Science & Technology, Saidpur-5310, BANGLADESH ² Department of Mechanical Engineering, Rajshahi University of Engineering & Technology, Rajshahi-6204, BANGLADESH |
| 7.2 | ICMIEE18-164 | Study of Heat Transfer Enhancement in Tubular Heat Exchanger with Twisted Tape Inserts <i>Sadman Hassan Labib, Md. Riad Arefin Himel, Jobayer Ibn Ali, and Anjan Goswami</i> Department of Mechanical and Production Engineering, Ahsanullah University of Science and Technology, Dhaka-1208, BANGLADESH |
| 7.3 | ICMIEE18-201 | Finned-tube Heat Exchanger with Circular, Elliptical & Rectangular Tubes with Water-vapor as Working Fluid <i>Md. Hasibul Hasan, and Dipayan Mondal</i> Mechanical Engineering, Khulna University of Engineering & Technology, Khulna 9203, BANGLADESH |
| 7.4 | ICMIEE18-227 | Experimental Investigation of an Air to Air Heat Pipe Heat Exchanger for Moderate Temperature Waste Heat Recovery <i>Saddam Hossen, Mahmud-Or-Rashid, Mantaka Taimullah, Farhan Ahmed Shakil, and A K M Monjur Morshed</i> Department of Mechanical Engineering, Bangladesh University of Engineering & Technology, Dhaka-1000, BANGLADESH |
| 7.5 | ICMIEE18-320 | Numerical Analysis of Heat Transfer for Double Pipe Heat Exchanger with and without Fin <i>Jamshedul Islam, Al Aman, and Mihir Ranjan Halder</i> Department of Mechanical Engineering, Khulna University of Engineering & Technology, Khulna-9203, BANGLADESH |

Technical Session VIII

Textile Engineering

23rd December 2018, Sunday, 4:15 PM- 5:15 PM, (Room No.: ME 312, Mechanical Building)

Chair: Prof. Dr. Mohammad Abdul Jalil (KUET, Bangladesh) Co-chair: Dr. Md. Ismail Hossain (KUET, Bangladesh)

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| 8.1 | ICMIEE18-120 | Significance of Cotton Cultivation to Keep Sustainable RMG Sector in Bangladesh <i>Md. Nur Uddin, Noyon Chandra Roy, Md Delwar Hossain, and Md Abdur Rahim</i> Department of Textile Engineering, Dhaka University of Engineering & Technology, DUET-1707, BANGLADESH |
| 8.2 | ICMIEE18-208 | Dyeing of 100% Cotton Fabric using Natural Dye, Mordant and Natural Finish <i>A. K. M.Nayab-Ul-Hossain, Mohammad Naim Hassan, Aniruddha Sarkar, S. M. Kamrul Hasan, Kaniz Fatima Mishfa</i> Lecturer, Department of Textile Engineering, Khulna University of Engineering & Technology, Khulna-9203, BANGLADESH |
| 8.3 | ICMIEE18-215 | Influence of Industrial Bleach Wash on the Physical and Comfort Properties of Denim Garments <i>Niaz Morshed Rifat, and Joy Sarkar</i> Department of Textile Engineering, Khulna University of Engineering & Technology, Khulna-9203, BANGLADESH |
| 8.4 | ICMIEE18-303 | Effect of Blended Yarn on Physical Properties of Single Jersey Knitted Fabrics <i>Mohammad Naim Hassan, A.K.M Nayab Ul Hossain, Md. Shakhawat Hossain, Moni Sankar Mondal, Joy sarkar, and Rezve Hassan Aumik</i> Department of Textile Engineering, Khulna University of Engineering and Technology, Khulna- 9203, BANGLADESH |
| 8.5 | ICMIEE18-304 | Sizing of Warp Yarn with a Different Concentration of Animal Fat and Acids and Determination of the Performance in Comparing with Conventional Sized Yarn <i>Joy Sarkar¹, and Md. Shamsuzzaman Rasel²</i> ¹ Department of Textile Engineering, Khulna University of Engineering & Technology, Khulna-9203, BANGLADESH ² Department of Textile Engineering, World University of Bangladesh, Dhaka-1207, BANGLADESH |

| Technical Session IX Manufacturing and Production Engineering 24th December 2018, Monday, 9:00AM-11:00AM (Seminar Room, ME 201, Mechanical Building) Chair: Dr. Sabuj Mallik (University of Derby, Derby, UK) Co-chair: Dr. Md. Abdul Hasib (KUET, Bangladesh) | | |
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| 9.1 | ICMIEE18-156 | Proposition of Additive Manufacturing Technique for Artificial Bone Implantations and Its Feasibility Assessment via Cost Analysis <i>Nusrath Zahan¹, M. Fakhru Islam Jony², and Khairun Nahar¹</i> ¹ Department of Industrial & Production Engineering, Rajshahi University of Engineering & Technology, Rajshahi, BANGLADESH ² Lira Group of Industries, Gulshan 2, Dhaka, BANGLADESH |
| 9.2 | ICMIEE18-171 | Design and Numerical Analysis of Suspension Geometry for a Formula Student Race Car <i>Shafi Md. Istiak</i> Department of Mechanical Engineering, Rajshahi University of Engineering & Technology, Kazla-6204, BANGLADESH |
| 9.3 | ICMIEE18-233 | Reduction of Chatter in Turning by using a Tool Holder with High Damping Coefficient <i>A H M Shahjahan, Amin Hasan Khan, Jannatun Naeema, and A.K.M. Nurul Amin</i> Department of Mechanical and Production Engineering, Ahsanullah University of Science and Technology, Dhaka, BANGLADESH |
| 9.4 | ICMIEE18-252 | Construction and Performance Test of a Manual Pipe Bending Machine <i>S. M. Moinur Rahman, and A. N. M Mizanur Rahman</i> Department of Mechanical Engineering, Khulna University of Engineering & Technology, Khulna 9203, BANGLADESH |
| 9.5 | ICMIEE18-253 | Development and Performance Test of Gearless Power Transmission System <i>Md. Jewel Rana, and A.N.M Mizanur Rahman</i> Department of Mechanical Engineering, Khulna University of Engineering & Technology, Khulna 9203, BANGLADESH |
| 9.6 | ICMIEE18-254 | Development of an Izod Impact Test Machine for Non-Metals <i>Mohammad Emran Hossain, and A.N.M Mizanur Rahman</i> Department of Mechanical Engineering, Khulna University of Engineering & Technology, Khulna 9203, BANGLADESH |
| 9.7 | ICMIEE18-255 | Construction and Performance Test of a Pedal Operated Double Cylinder Reciprocating Pump <i>Abdullah al Musabbir and A.N.M Mizanur Rahman</i> Department of Mechanical Engineering, Khulna University of Engineering & Technology, Khulna 9203, BANGLADESH |
| 9.8 | ICMIEE18-316 | Design and Construction of a Three-Axis Automated Drilling Mechanism with Depth Controllability <i>Sudip Saha, Saikat Biswas, and Md. Kutub Uddin</i> Department of Mechanical Engineering, Khulna University of Engineering & Technology, Khulna-9203, BANGLADESH |
| 9.9 | ICMIEE18-318 | Design Construction and Performance Test of a Low-Cost Portable Mechanical Ventilator for Respiratory Disorder <i>S. M. Tamjid Hossain¹, Mihir Ranjan Halder¹, Al Aman¹, Md. Rakibul Islam², and Md. Tarek Rahman¹</i> ¹ Department of Mechanical Engineering, Khulna University of Engineering & Technology, Khulna-9203, BANGLADESH ² Department of Biomedical Engineering, University Khulna University of Engineering & Technology, Khulna-9203, BANGLADESH |
| 9.10 | ICMIEE18-327 | Stress Analysis of Welded Joint Portions at Rear-side Footrests of Public Transportation like Human Hauler <i>Mohammad Asheful Alam, M. SRabbi, Sama-E-Shan, and Md. Shamim Hasan</i> Department of Mechanical Engineering, Chittagong University of Engineering & Technology, Chittagong-4349, BANGLADESH |

Technical Session X

Energy Science & Engineering

24th December 2018, Monday, 9:00 AM-11:00 AM (Room No.: ME 308, Mechanical Building)

Chair: Dr. Md. Tawhidul Islam Khan (KUET, Bangladesh) **Co-chair:** Dr. Md. Rafiquzzaman (KUET, Bangladesh)

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|-------|--------------|---|
| 10.1 | ICMIEE18-128 | <p>Recovery of Liquid Fuel through Thermal Pyrolysis of Medical Waste (Waste Syringe) in a Batch Reactor</p> <p><i>Adnan Abedeen¹, Uday Som², Farzana Rahman³, Md. Rezaul Karim⁴, Md. Moniruzzaman⁵, Md. Shameem Hossain¹</i></p> <p>¹Department of Chemical Engineering, Jessore University of Science & Technology, Jessore-7408, BANGLADESH</p> <p>²Department of Energy Science and Engineering, Khulna University of Engineering and Technology, Khulna- 9203, BANGLADESH</p> <p>³Department of Physics, Jahangirnagar University, Savar, Dhaka, BANGLADESH</p> <p>⁴Department of Chemical Engineering, Z. H Sikder University of Science & Technology, Shariatpur, BANGLADESH</p> <p>⁵Designated Reference Institute for Chemical Measurements, Bangladesh Council of Scientific & Industrial Research, Dhaka, BANGLADESH</p> |
| 10.2 | ICMIEE18-140 | <p>Study of Alternative Fuel Extracted From Solid Waste</p> <p><i>Susmita Das Puja, and Md. Golam kader</i></p> <p>Department of Mechanical Engineering, Khulna University of Engineering & Technology, Khulna-9203, BANGLADESH</p> |
| 10.3 | ICMIEE18-150 | <p>Biodiesel Production from Chicken Skin: a Green Energy for Bangladesh</p> <p><i>Tamal Chowdhury¹, Hemal Chowdhury², Pranta Barua¹, Rabiul Islama¹, and Bodius Salamb¹</i></p> <p>¹Department of Electrical & Electronic Engineering, Chittagong University of Engineering & Technology, Chittagong, BANGLADESH</p> <p>²Department of Mechanical Engineering, Chittagong University of Engineering & Technology, Chittagong, BANGLADESH</p> |
| 10.4 | ICMIEE18-193 | <p>Production of Syngas using Entrained Flow Gasification of Pine Bark Biomass Aiming to Reduce Greenhouse Gas Emission for Power Generation</p> <p><i>M. Shahabuddin, and Sankar Bhattacharya</i></p> <p>Department of Chemical Engineering, Monash University, Wellington Rd, Clayton 3800, AUSTRALIA</p> |
| 10.5 | ICMIEE18-219 | <p>Investigation on Performance of Grass, Orange and Potato as Substrate of Microbial Fuel Cell</p> <p><i>Nawrin Rahman Shefa, Ismat Ara Eti, Md. Jony Reza, Sonaton Biswas, and Md. Abdul Halim</i></p> <p>Department of Chemical Engineering, Jessore University of Science & Technology, Jessore-7408, BANGLADESH</p> |
| 10.6 | ICMIEE18-310 | <p>Design of Automated Biodiesel Blend Plant and Analysis of Rotational Effect on Biodiesel Blends</p> <p><i>Shaurin Maher Kikky¹, and Leonard Sunny Peris²</i></p> <p>¹Department of Mechanical Engineering, Military Institute of Science and Technology, Dhaka-1216, BANGLADESH</p> <p>²Department of Mechanical Engineering, Bangladesh University of Engineering and Technology, Khulna-9203, BANGLADESH</p> |
| 10.7 | ICMIEE18-314 | <p>Biofuels Extraction through Pyrolysis of Banana Waste</p> <p><i>Saikat Biswas, Sudip Saha, and Mohammad Ariful Islam</i></p> <p>Department of Mechanical Engineering, Khulna University of Engineering & Technology, Khulna-9203, BANGLADESH</p> |
| 10.8 | ICMIEE18-325 | <p>Pyrolysis of Sawdust for Bio-Oil Production using Infrared Heat Source</p> <p><i>Md. Rabiul Islam, Muhammad Mostafa Kamal Bhuiya, Bably Das, Mostafizur Rahman and Amir Hamza Limon</i></p> <p>Department of Mechanical Engineering, Chittagong University of Engineering & Technology (CUET), Chittagong 4349, BANGLADESH</p> |
| 10.9 | ICMIEE18-333 | <p>Productivity Enhancement of Single Basin Solar Still using Nanoparticle and Phase Change Material</p> <p><i>K.M. Mine Uddin Emon, and Md. Mehdi Masud Talukder</i></p> <p>Dept. of Mechanical Engineering, Chittagong University of Engineering & Technology, Chittagong, BANGLADESH</p> |
| 10.10 | ICMIEE18-334 | <p>Experimental Investigation of Different Wick Materials to Enhance the Productivity of Single Slope Single Basin Solar Still</p> <p><i>Laxman Chandra Das, and Md. Mehdi Masud Talukder</i></p> <p>Dept. of Mechanical Engineering, Chittagong University of Engineering & Technology, Chittagong, BANGLADESH</p> |

Technical Session XI

Industrial Engineering 2

24th December 2018, Monday, 9:00 AM-11:00AM, (Room No.: ME 310, Mechanical Building)

Chair: Prof. Dr. Md. KutubUddin (KUET, Bangladesh)**Co-chair:** Dr. Kazi Arif-Uz-Zaman (KUET, Bangladesh)

| | | |
|------|--------------|--|
| 11.1 | ICMIEE18-153 | <p>Assessment of Water Saturation using Archie's Formula, Indonesia Equation and Simandoux Model of Shahbazpur Gas Field (SBZ 01) <i>Jebin Fouzia, and Shehab Uddin</i> Graduate, Department of Petroleum and Mining Engineering, Chittagong University of Engineering & Technology, Chittagong, BANGLADESH</p> |
| 11.2 | ICMIEE18-170 | <p>Study on Bio-Fertilizer Extraction and Management of Municipal Solid Waste of Khulna City <i>Debasish Adhikary, and Md. Shahidul Islam</i> Department of Mechanical Engineering, Khulna University of Engineering & Technology, Khulna-9203, BANGLADESH</p> |
| 11.3 | ICMIEE18-244 | <p>Prediction of Weld Quality of Artificial Neural Network Modeling of Parameters of MIG Welding Process <i>Israt Zarin Era, and Nikhil Ranjan dhar</i> Department of Industrial & Production Engineering, Bangladesh University of Engineering & Technology, Dhaka-1000, BANGLADESH</p> |
| 11.4 | ICMIEE18-260 | <p>Application of Lean and Six Sigma Tool to Waste Reduction and Productivity Improvement in Footwear Industry <i>Adhir Chandra Paul, Noor-E-Imam, and Shakhawath Hossain</i> Department of Leather Engineering, Khulna University of Engineering & Technology, Khulna-9203, BANGLADESH</p> |
| 11.5 | ICMIEE18-261 | <p>Studies on Sewing Complication through Pareto Chart and Cause-Effect Diagram Analysis of a Footwear Industry <i>Adhir Chandra Paul, Md. Atikul Islam, and Md. Shohag Hossain</i> Department of Leather Engineering, Khulna University of Engineering & Technology, Khulna-9203, BANGLADESH</p> |
| 11.6 | ICMIEE18-289 | <p>Experimental Study on Wheel Alignment System of Light Vehicles <i>Riton Kumer Das, Md. Abu Mowazzem Hossain and Md. Tazul Isalm</i> Department of Mechanical Engineering, Chittagong University of Engineering and Technology, Chittagong -4349, BANGLADESH</p> |
| 11.7 | ICMIEE18-298 | <p>A Study on Minimization of Injury and Accidental Causes in Cutting, Sewing and Finishing Units of RMG Industries <i>Israt Parveen¹, Mosammot Nelufa akter¹, Shima Shil², Md. Mehedi Hasan³, and Md. Iqbal Mahmud⁴</i> ¹Department of Textile Engineering, MawlanaBhashani Science and Technology University, Santosh, Tangail-1902, BANGLADESH ²Trainee Work Study Officer, Ananta Jeanswear Limited, Ashulia, BANGLADESH ³Assistant Merchandiser, Montex Fabrics Ltd., Mondol Group, Kashimpur, Gazipur, BANGLADESH ⁴Department of Textile Engineering, MawlanaBhashani Science and Technology University, Santosh, Tangail, BANGLADESH</p> |
| 11.8 | ICMIEE18-299 | <p>Forecasting Demand by GMDH Predictor, a Case Study <i>Syed Misbah Uddin, Aminur Rahman, and Emtiaz Uddin Ansari</i> Department of Industrial and Production Engineering, Shahjalal University of Science and Technology, Sylhet 3114, BANGLADESH</p> |
| 11.9 | ICMIEE18-305 | <p>Natural Gas Scenarios in Bangladesh and Its Future <i>Md. Saruar Jahan¹, Md. Abu Raihan¹, Mohammad Iqbal¹, and Farhad Hawlader²</i> ¹Department of Industrial and Production Engineering, Shahjalal University of Science and Technology, Sylhet-3114, BANGLADESH ²Department of petroleum and mining Engineering, Shahjalal University of Science and Technology, Sylhet-3114, BANGLADESH</p> |

Technical Session XII

Power Plant & Energy Engineering

24th December 2018, Monday, 9:00 AM-11:00 AM, (Room No.: ME 312, Mechanical Building)

Chair: Prof. Dr. Mihir Ranjan Halder (KUET, Bangladesh) **Co-chair:** Dr. Md. Hasan Ali (KUET, Bangladesh)

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|------|--------------|---|
| 12.1 | ICMIEE18-107 | <p>Design, Simulation, and Economic Analysis of an Optimal Mini-grid Solar-Fuel Cell Hybrid Power Generation System for a Remote Island of Bangladesh</p> <p><i>Sk. Suzauddin Yusuf^d, Md. Mahmudul Alam², Md. Hasan Ali³, and Nirendra Nath Mustafi⁴</i></p> <p>¹Department of Mechanical Engineering, Bangladesh Army University of Science and Technology, Saidpur -5311, BANGLADESH ² Department of Industrial and Production Engineering, Bangladesh Army University of Science and Technology, Saidpur -5311, BANGLADESH ³Department of Mechanical Engineering, Rajshahi University of Engineering and Technology, Rajshahi-6204, BANGLADESH</p> |
| 12.2 | ICMIEE18-151 | <p>Feasibility of Integrated Pico Hydro System at Choto Komoldoho, Mirsharai</p> <p><i>Tamal Chowdhury¹, Hemal Chowdhury², Piyal Chowdhury³, Abul Hasnat¹, and Birol Barua¹</i></p> <p>¹Department of Electrical & Electronic Engineering, Chittagong University of Engineering & Technology, Chittagong-4349, BANGLADESH ²Department of Mechanical Engineering, Chittagong University of Engineering & Technology, ³Chittagong Collegiate School & College, Chittagong</p> |
| 12.3 | ICMIEE18-176 | <p>Feasibility Study of Pico Hydro Power Plant in Shongrapunji Waterfall for Clean Environment</p> <p><i>Syed Tahmid Hussan¹, and Pranta Barua²</i></p> <p>¹Department of Petroleum and Mining Engineering, Chittagong University of Engineering & Technology, Chittagong-4349, BANGLADESH ²Department of Electrical & Electronic Engineering, Chittagong University of Engineering & Technology, Chittagong-4349, BANGLADESH</p> |
| 12.4 | ICMIEE18-190 | <p>Feasibility Study of Hybrid Renewable Energy System for Electrification of Kutubdia</p> <p><i>Tamal Chowdhury¹, Hemal Chowdhury², Piyal Chowdhury³, and Monirul Islam Miskat¹</i></p> <p>¹Department of Electrical & Electronic Engineering, Chittagong University of Engineering & Technology, Chittagong-4349, BANGLADESH ²Department of Mechanical Engineering, Chittagong University of Engineering & Technology, ³Chittagong Collegiate School & College, Chittagong</p> |
| 12.5 | ICMIEE18-194 | <p>Economic Viability of Biomass Power plant in Bangladesh</p> <p><i>Tamal Chowdhury^a, Hemal Chowdhury^b, Piyal Chowdhury^c, Pranta Barua^a, and Monirul Islam Miskat^a</i></p> <p>¹Department of Electrical & Electronic Engineering, Chittagong University of Engineering & Technology, Chittagong-4349, BANGLADESH ²Department of Mechanical Engineering, Chittagong University of Engineering & Technology, ³Chittagong Collegiate School & College, Chittagong</p> |
| 12.6 | ICMIEE18-218 | <p>Thermal Hydraulics Simulation of Fuel Sub-Assembly for 1200 MWe Nuclear Power Reactor</p> <p><i>Taosif Alam, and M. A. R. Sarkar</i></p> <p>Department of Mechanical Engineering, Bangladesh University of Engineering & Technology, Dhaka-1000, BANGLADESH</p> |
| 12.7 | ICMIEE18-241 | <p>Environmental Impact of Nuclear Power Plant (Rooppur Nuclear Power Plant) on Third World Country like Bangladesh</p> <p><i>Md. Nesar Ali¹, Md. Ridwan Ullah¹, and Shuva Sarkar²</i></p> <p>¹Department of Mechanical Engineering, Chittagong University of Engineering & Technology, Chittagong-4349, BANGLADESH ²Department of Electrical & Electronics Engineering, Khulna University of Engineering & Technology, BANGLADESH</p> |
| 12.8 | ICMIEE18-285 | <p>Harnessing the Ocean's Wave Power for Bangladesh's Dynamic Coastal Areas</p> <p><i>Md. Mahub Hasan, Md. Ashfaqul Islam, Sheikh Ahmad Imtiyaz, Md. Akramul Alim, Md. Momtazur Rahman, and Md. Mahmudul Hasan</i></p> <p>Department of Electrical & Electronic Engineering, Bangladesh Army University of Engineering & Technology, Natore-6431, BANGLADESH</p> |
| 12.9 | ICMIEE18-311 | <p>Evaluating the Impact of Coal Fired Thermal Power Plant on water: A Case Study of Barapukuria Dinajpur, Bangladesh</p> <p><i>Md. Mustafizur Rahman, Md. Arif Hossain, and M. Farhad Howladar</i></p> <p>Shahjalal University of Science and Technology, Sylhet-3114, BANGLADESH</p> |

Technical Session XIII

Robotic and Mechatronics

24th December 2018, Monday, 11:30 AM-01:00 PM (Seminar Room, ME 201, Mechanical Building)

Chair: Dr. M. Habib Rahman (University of Wisconsin, USA) Co-chair: Dr.Md. Helal-An-Nahiyen (KUET, Bangladesh)

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| 13.1 | ICMIEE18-234 | Difficulties to Develop a Four Legged Robot <i>Mohammad Harun-Or-Rashid, Mostafijur Rahman, and Sabrina Rashid</i> Department of Mechanical and Production Engineering, Ahsanullah University of Science and Technology, Dhaka-1208, BANGLADESH |
| 13.2 | ICMIEE18-266 | Self-Balancing Autonomous Unicycle using Raspberry Pi <i>Pulok Tarafder¹, Moyukh Amin¹, Syed Samiul Alam Mehrab², and Abdullah Al Maruf¹</i> ¹ Department of Electrical and Electronic Engineering, BRAC University,66 Mohakhali, Dhaka 1212, BANGLADESH ² Department of Computer Science Engineering, BRAC University,66 Mohakhali, Dhaka 1212, BANGLADESH |
| 13.3 | ICMIEE18-306 | Fabrication of a Long Distance Controlled Pan-Tilt Mechanism for Camera <i>Soma Sarker, Asif Ahmed Shishir, and Shilpi Rani Saha</i> Department of Mechanical Engineering, Rajshahi University of Engineering &Technology, Rajshahi-6204, BANGLADESH |
| 13.4 | ICMIEE18-307 | Design & Fabrication of Low Cost GSM Based Wireless Controlled Robot <i>Asif Ahmed Shishir, Soma Sarker, and Md. Sefatullah</i> Department of Mechanical Engineering, Rajshahi University of Engineering &Technology, Rajshahi-6204, BANGLADESH |
| 13.5 | ICMIEE18-312 | Design and Fabrication of an Unmanned Underwater Vehicle <i>Mohammad Harun-Or-Rashid, and Diprajit Biswas</i> Department of Mechanical and Production Engineering, Ahsanullah University of Science and Technology, Dhaka, BANGLADESH |
| 13.6 | ICMIEE18-313 | Study the Attitude of a Seesaw to Develop Flying Robots <i>Mohammad Harun-Or-Rashid, and Md. Nadim Bin Wahid</i> Department of Mechanical and Production Engineering, Ahsanullah University of Science and Technology, Dhaka-1208, BANGLADESH |
| 13.7 | ICMIEE18-315 | Designing Approach of Blimp for a Hybrid VTOL Aerial Robot <i>Md.Tasnim Rana, and Md. Shahidul Islam</i> Department of Mechanical Engineering, Khulna University of Engineering & Technology, Khulna-9203,BANGLADESH |

Technical Session XIV

Leather and Chemical Engineering

24th December 2018, Monday, 11:30 AM-01:00 PM (Room No.: ME 308, Mechanical Building)

Chair: Dr. Md. Abul Hashem (KUET, Bangladesh) Co-chair: Dr. Md. Elias Uddin (KUET, Bangladesh)

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| 14.1 | ICMIEE18-248 | Comprehensive Hazard Identification and Safety Evaluation for Shahjalal Fertilizer Industry Limited <i>Shanzida Sultana Ema, Anamika Roy, and Md Tanvir Sowgath</i> Department of Chemical Engineering, Bangladesh University of Engineering and Technology, Dhaka-1000, BANGLADESH |
| 14.2 | ICMIEE18-274 | Application of Extracted and Modified Gelatin from the Leather Solid Waste in Commercial Finishing Agents <i>Priyanka Saha Gita, and Zia Uddin Md. Chowdhury</i> Department of Leather Engineering, Khulna University of Engineering & Technology, Khulna-9203, BANGLADESH |
| 14.3 | ICMIEE18-287 | Efficiency of Tamarindusindica Seed Charcoal for Chromium Removal from Tannery Wastewater <i>Md. Abul Hashem, Kallol Paul, Mst. Nazmin Zaman Khan, and Mehedi Hasan</i> Department of Leather Engineering, Khulna University of Engineering & Technology, Khulna-9203, BANGLADESH |
| 14.4 | ICMIEE18-288 | Evaluation of Sewing Performance of Leather, Denim & PVC Coated Fabric Based on Seam Puckering, Seam Strength & Seam Efficiency <i>Muhammad Naimul Hasan, Md.Imrul Kayes Limon, Md. Jasidul Haque, Nabilul Hasan, and Athher Shadab</i> Department of Leather Engineering, Khulna University of Engineering & Technology, Khulna-9203, BANGLADESH |
| 14.5 | ICMIEE18-294 | Amino Acids Extraction from Hair Dissolving Liming Waste to Reduce Pollution in Tannery <i>Sadia Mim, Anika Tabassum, and Md. Abul Hashem</i> Department of Leather Engineering, Khulna University of Engineering & Technology, Khulna-9203, BANGLADESH |
| 14.6 | ICMIEE18-317 | Efficacy of Watermelon (Citrullus Lanatus) Rind Charcoal for Chromium Removal from Tannery Wastewater <i>Nabila Nowrin, Tasnim Alam, Sofia Payel, Md. Shahruk Nur-A-Tomal, and Md. Abul Hashem</i> Department of Leather Engineering, Khulna University of Engineering & Technology, Khulna-9203, BANGLADESH |

| Technical Session XV Materials and Composites 24th December 2018, Monday, 11:30 AM-01:00 PM, (Room No.: ME 310, Mechanical Building) Chair: Dr. Md. Shahidul Islam (KUET, Bangladesh) Co-chair: Dr. Md. Shariful Islam (KUET, Bangladesh) | | |
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| 15.1 | ICMIEE18-206 | Numerical Investigation of Low Velocity Impact on Polystyrene Foam Core Based Sandwich Composites <i>Md. Ahatashamul Haque Khan Shuvo, and Md. Arifuzzaman</i> Department of Mechanical Engineering, Khulna University of Engineering & Technology, Khulna-9203, BANGLADESH |
| 15.2 | ICMIEE18-216 | Investigation of Mechanical Properties of Jute-Betelnut Husk Fiber (BHF) Reinforced Epoxy Composite <i>Tanvirul Islam, Md. Shakhwat Hossain, and Md. Mahmudul Hasan</i> Department of Textile Engineering, Khulna University of Engineering & Technology, Khulna-9203, BANGLADESH |
| 15.3 | ICMIEE18-268 | Available and Cost Reductive Materials in Bangladesh Having an Eye to Bone Treatment <i>Talukdar Raian Ferdous</i> Department of Biomedical Engineering, Khulna University of Engineering & Technology, Khulna -9203, BANGLADESH. |
| 15.4 | ICMIEE18-278 | Investigation of Different Mechanical Properties on Various Hybrid Natural Fiber Based Polymer Composites <i>Rahul Sarker, and Md. Shahidul Islam</i> Dept. of Mechanical Engineering, Khulna University of Engineering & Technology, Khulna-9203, BANGLADESH |
| 15.5 | ICMIEE18-284 | An Experimental and Simulation Study of Larger Volume Micro Discharge for the Realization of Microplasma Based Reactor Applicable to Fuel Reforming and Material Processing <i>R. K. Das¹, and Dr. A.Z.A Saifullah²</i> ¹ Department of Mechanical Engineering, Chittagong University of Engineering & Technology, Chittagong-4349, BANGLADESH ² Department of Mechanical Engineering, International University of Business Agriculture & Technology, BANGLADESH |
| 15.6 | ICMIEE18-308 | The Variation of Concrete Strength using Waste Tyre Rubber as Coarse Aggregate <i>Md. Ashiqul Islam, Tuhin Hasan Shagar, and MD. Raihan Bhuiyan</i> Department of Civil Engineering, Khulna University of Engineering & Technology, Khulna-9203, BANGLADESH |
| 15.7 | ICMIEE18-330 | Influence of Interlayer Thickness on the Singular Stress Field in 3D Three-Layered Bonded Joints using FEM <i>Md. Jahangir Hossain, and Md. Shahidul Islam</i> Dept. of Mechanical Engineering, Khulna University of Engineering & Technology, Khulna-9203, BANGLADESH |

| Technical Session XVI Related Topics 24th December 2018, Monday, 11:30 AM-01:00 PM (Room No.: ME 312, Mechanical Building) Chair: Prof. Dr. Sobahan Mia(KUET, Bangladesh) Co-chair: Dr. Azizur Rahman (KUET, Bangladesh) | | |
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| 16.1 | ICMIEE18-205 | Air Pollutants Emission from Coal Fired Kiln and Its Variation for Use of Different Fuel Types <i>Md. Riad-Ul-Hasan, and Kazi ABM Mohiuddin</i> Department of Civil Engineering, Khulna University of Engineering & Technology, Khulna-9203, BANGLADESH |
| 16.2 | ICMIEE18-212 | Biomaterials Serving the Purpose of Drug Delivery in Human Body <i>Talukdar Raian Ferdous, and Tahsin Solaiman</i> Department of Biomedical Engineering, Khulna University of Engineering and Technology, Khulna, BANGLADESH |
| 16.3 | ICMIEE18-301 | Implications of Bangladesh's Present Energy Transition on Energy Trilemma <i>Shafiqul Alam¹, and Md. Golam Kader²</i> ¹ International Climate Protection Fellow, Ecologic Institute, Pfalzburger Strasse, Berlin 10717, Alexander von Humboldt Foundation, GERMANY ² Department of Mechanical Engineering, Khulna University of Engineering & Technology, Khulna-9203, BANGLADESH |
| 16.4 | ICMIEE18-323 | Performance Analysis of Hydroxy Gas Generator by Varying Conditions of Electrolyte Concentration, Temperature and Time <i>Joy Datta, Md. Abu Mowazzem Hossain, and Radif Uddin Ahmed</i> Department of Mechanical Engineering, Chittagong University of Engineering & Technology, Roazan, Chittagong-4349, BANGLADESH |
| 16.5 | ICMIEE18-324 | Techniques to Improve the Parallel Finite Element Method to Solve Large Scale Problems <i>Abul Mukid Mohammad Mukaddes¹, Masao Ogin², and Ryuji Shioya³</i> ¹ Department of Industrial and Production Engineering, Shahjalal University of Science and Technology, BANGLADESH ² Information Technology Centre, Nagoya University, Nagoya, JAPAN ³ Faculty of Information Sciences and Arts, Toyo University, Tokyo, JAPAN |
| 16.6 | ICMIEE18-328 | Wear behavior of Different Impeller Materials for Pumping Various Slurry <i>Sandip Karmokar, Sohaban Mia, and Md. Abdul Hasib</i> Department of Mechanical Engineering, Khulna University of Engineering & Technology, Khulna-9203, BANGLADESH |
| 16.7 | ICMIEE18-332 | Life Cycle Analysis of Lead Acid Battery used in Electric Vehicles (3 Wheeler) in Bangladesh <i>Md. Raquibul Hasan¹, and Nirendra Nath Mustafi²</i> ¹ Department of Civil Engineering, Pabna University of Science & Technology, PUST-6600, BANGLADESH ² Dept. of Mechanical Engineering, Rajshahi University of Engineering & Technology, RUET-6204, BANGLADESH |