



Detailed Technical Program

19 December 2020, Saturday

Time (BST, GMT+6)	Event
03:00 - 03:30 pm	Inaugural Ceremony Welcome address by Chairman of ICChE 2020 Conference Address by the Special Guest Address by the Chief Guest Address by the Chairman of Steering Committee, ICChE 2020
03:30 - 04:30 pm	Plenary Lecture 1 Chair: Prof. Dr. Iqbal M Mujtaba Co-Chair: Prof. Dr. M.A.A. Shoukat Choudhury
03:30 - 04:30 pm	Title: Shahjalal Fertilizer Company Limited (SFCL): In Retrospect Speaker: Professor (Rtd.) Dr. A. K. M. A Quader, Bangladesh University of Engineering and Technology, Bangladesh

20 December 2020, Sunday

Time (BST, GMT+6)	Event
09:00 - 09:45 am	Plenary Lecture 2 Chair: Prof. Dr. Syeda Sultana Razia Co-Chair: Assoc. Prof. Dr. M. M. Faruque Hasan Title: Towards a Circular Economy Systems Engineering Framework Speaker: Professor Dr. Stratos Pistikopoulos, Texas A&M University, USA

Time (BST, GMT+6)	Event	Details to Join Virtually
09:45 - 10:45 am	Keynote 1 & 3 Chair: Prof. Dr. Md. Zahangir Alam Co-Chair: Prof. Dr. Md. Mominur Rahman	
09:45 - 10:15 am	Title of Keynote 1: Sustainable Design of the 2G Bioethanol Production Process through Process Intensification Keynote 1 Speaker: A. Mauricio Sales Cruz, Universidad Autónoma Metropolitana – Cuajimalpa, Mexico	Choose Keynote 1 & 3 from Zoom  Breakout Rooms
10:15 - 10:45 am	Title of Keynote 3: Synergistic Process Intensification: Frameworks and Applications Keynote 3 Speaker: M. M. Faruque Hasan, Texas A&M University, USA	
09:45 - 10:45 am	Keynote 2 & 4 Chair: Prof. Dr. Abu Yousuf Co-Chair: Assoc. Prof. Dr. Md. Shahinoor Islam	
09:45 - 10:15 am	Title of Keynote 2: Envisioning Innovative Nano-Enabled Water Treatment Technologies in the 2020s Keynote Speaker 2: Nirupam Aich, University at Buffalo, USA	Choose Keynote 2 & 4 from Zoom  Breakout Rooms
10:15 - 10:45 am	Title of Keynote 4: Hydrothermal Carbonization: Opportunities and Challenges Keynote Speaker 4: Toufiq Reza, Florida Institute of Technology, USA	

Time (BST,
GMT+6)

Event

10:45 am
- 01:05 pm

Technical Session 1:
Safety

Chair: Prof. Dr. Syeda Sultana Razia
Co-Chair: Prof. Dr. M.A.A. Shoukat
Choudhury

Choose *Technical Session 1: Safety* from Zoom



Breakout Rooms

Paper ID **Paper Title & Author(s)**

10:45 - 11:05 am	24	Quantitative Risk Assessment (QRA) and Route Optimization for Hazmat Transport using Accident Database Authors: Nishat Tasnim, Mohammed Tahmid, Nusrat Jahan and Syeda Sultana Razia
11:05 - 11:25 am	26	Life Cycle based Risk Assessment of Portable LPG Cylinders Authors: Joyati Biswas Suchi, Samiha Zaman and Syeda Sultana Razia
11:25 - 11:45 am	67	Study of Fire Growth Behavior of a Residential Apartment Using Fire Dynamic Simulator Authors: Fahim Shahriar Sakib, Riazuddin Ahmed and Easir A. Khan
11:45 am - 12:05 pm	81	Safety Performance Assessment of Hazardous Chemical Facilities in Bangladesh Using Indexing Approach Authors: Uddipta Mondal, Nishat Salsabil and Easir A. Khan
12:05 - 12:25 pm	85	Investigation of Ammonia Storage Tank Failure at Di-Ammonium Phosphate Plant in Chittagong, Bangladesh Authors: M.A.A. Shoukat Choudhury and A.K.M.A. Quader
12:25 - 12:45 pm	99	Occupational Risk Assessment in RMG, Textile and Ship Breaking Industries of Bangladesh Authors: Syeda Sultana Razia, Sharmin Jahan Mim, Jannatul Ferdous and Md Mizanur Rahman Jony
12:45 - 01:05 pm	112	Failure Probability of Pressure Safety Valves: Case Study of a Gas Processing Plant Authors: Md. Ahasan Habib Rakib, Tarikul Islam, Mohammed Tahmid, C M Touhid Amin Peng. and Syeda Sultana Razia

Time (BST, GMT+6)	Event
10:45 am - 01:05 pm	Technical Session 2: Modeling Chair: Dr. Nahid Sanzida Co-Chair: Dr. Nurur Rahman

Choose *Technical Session 2: Modelling* from Zoom



Breakout Rooms

	Paper ID	Paper Title & Author(s)
10:45 - 11:05 am	76	Modeling and Optimizing Parameters of Condensers in Split Type Room Air Conditioners Authors: Rahatul Hasan, Md. Khairul Bahar, Md Noor A Alam, Md Yasin Ali and M.A.A. Shoukat Choudhury
11:05 - 11:25 am	88	Application of Dispersion Modelling to Assess the Pollution Impact from Different Fossil Fuel-driven Power Plants Authors: Sirazam Munira Aishee, Jannatul Ferdous and Shoeb Ahmed
11:25 - 11:45 am	69	Surrogate Modeling & Optimization of a Nonlinear Batch Reactor by Polynomial Chaos Expansion (PCE) Authors: Nishat Tasnim, Mysha Momtaz and Nahid Sanzida
11:45 am - 12:05 pm	31	Application and Performance Evaluation of Model Predictive Controllers on Reactive Distillation Processes Authors: Ashfaq Iftakher, Ahaduzzaman Nahid, Seyed Soheil Mansouri, Rafiqul Gani and M.A.A. Shoukat Choudhury
12:05 - 12:25 pm	118	Heat and Mass Transfer Predictive 3D Model of Mango Kernel During Convection Oven Drying Process Authors: Md. Shafiul Islam, Md. Sumon Ali, Mohammad Nurur Rahman and Pabitra Chandra Das
12:25 - 12:45 pm	119	3D Model of Heat Distribution During Convective Drying of Potato Slice with Different Thickness Authors: Md. Shafiul Islam, Md. Sumon Ali, Mohammad Nurur Rahman and Pabitra Chandra Das

Time (BST,
GMT+6)

Event

10:45 am
- 01:05 pm

Technical Session 3:
Bio-chemical

Chair: Dr. Mohidus Samad Khan
Co-Chair: Dr. Jahid Ferdous

Choose **Technical Session 3: Biochemical** from Zoom



Breakout Rooms





	Paper ID	Paper Title & Author(s)
10:45 - 11:05 am	03	Investigation of Bangladeshi Centella Asiatica, Moringa Oleifera and Azadirachta Indica for Antioxidants Authors: Baishali Barua Pooja, Azratul Bashir Tusi, Nishat Tabassum and Md. Iqbal Hossain
11:05 - 11:25 am	08	A Novel Catalyst from Fruit Peels for Biodiesel Production Authors: Md. Moshir Rahman, Md. Owaleur Rahman, Marufa Khatun, Esmat Ara Eti, Md. Jahangir Alam and K. M. Anis Ul Haque
11:25 - 11:45 am	27	Baker Yeast Production from Sugarcane Molasses Using Orange Peel as Biocatalyst Authors: Md Hasan Shahriar Raby, Fahmina Binte Hossain, Md Anisur Rahman, Mostofa Shoroar Shuvo, Md Shahadat Hossain and Abu Yousuf
11:45 am - 12:05 pm	05	Study of Hibiscus Rosasinensis as a Feedstock for Natural Colorant to Food Authors: Fahim Rashid Choudhury, Azmain Akash and Md. Iqbal Hossain
12:05 - 12:25 pm	54	Biochar Production from Waste Biomass using Modular Pyrolyzer for Soil Amendment Authors: K. M. Nazmus Sakib, S. M. Nafiz Ahmed, Abdullahil Mubdee and Kawnish Kirtania
12:25 - 12:45 pm	106	Study of Growth Kinetics of High Lipid Content Algae in Local Environment Authors: Anika Ferdous, Md. Mursalin Rahman Khandaker, Farid Ahmad, John Liton Munshi and Mohidus Samad Khan


Time (BST, GMT+6)	Event
10:45 am - 01:05 pm	Technical Session 4: Environment Chair: Prof Shakhawat H. Firoz Co-Chair: Dr. Easir Arafat Khan

Choose **Technical Session 4: Environment** from Zoom



	Paper ID	Paper Title & Author(s)
10:45 - 11:05 am	74	Assessment of Pollution Loads from Major Process Industries in Bangladesh Using Industrial Pollution Projection System Authors: Mahmudul Hasan, Anindya Karmaker and Shoeb Ahmed
11:05 - 11:25 am	80	Application of Novel Graphite-Starch Electrodes for Power Generation and Heavy Metal Remediation in Single-Chamber Microbial Fuel Cells Authors: Nishat Tabassum, Al Ibtida Sultana and Shoeb Ahmed
11:25 - 11:45 am	84	Fabrication of B/Sn-doped ZnO Nanoparticles for the Photocatalytic Remediation of Toxic Textile Dye under Solar Irradiation Authors: Abrar Zadeed Ahmed, Shah Md. Masum, Mohammed Monjur Ul Islam, Rafiqul Islam and Md. Ashraful Islam Molla
11:45 am - 12:05 pm	90	Characterization of Textile ETP Sludge (TES) and Experimental Analysis of Sludge Management Options Authors: Farah Haque, Shafkat Sharif, Rathin Chakraborty, Mohammed Abed Hossain and Mohidus Samad Khan
12:05 - 12:25 pm	98	Pollution Load Assessment and Water Footprint Calculation of Leather Industry in Bangladesh Authors: Sumaya Humayra, Laila Hossain, Selim Reza Hasan and Mohidus Samad Khan
12:25 - 12:45 pm	75	Performance Analysis of Different Anode Materials of a Double Chambered Microbial Fuel Cell Authors: Abdullah Al Moinee and Nahid Sanzida

Time (BST, GMT+6)	Event		
01:05 - 2:00 pm	<i>Lunch and Prayer Break</i>		
Time (BST, GMT+6)	Event		Details to Join Virtually
02:00 - 03:00 pm	Keynote 5 & 7	Chair: Prof. Dr. M.A.A. Shoukat Choudhury Co-Chair: Assoc. Prof. Dr. Md. Tanvir Sowgath	
02:00 - 02:30pm	Title of Keynote 5: Application of Reverse Osmosis in Water Desalination and Wastewater Treatment Keynote 5 Speaker: Professor Iqbal M Mujtaba, University of Bradford, UK		Choose Keynote 5 & 7 from  Breakout Rooms
02:30 - 3:00 pm	Title of Keynote 7: Bioprocess Development for Gluconic Acid Production using Free and Immobilized Cells of Recombinant <i>Aspergillus Niger</i> Speaker: Prof. Hesham Ali El Enshasy, University Technology Malaysia, MY		 Breakout Rooms
02:00 - 03:00 pm	Keynote 6 & 8	Chair: Prof. Dr. Md. Zahangir Alam Co-Chair: Assoc. Prof. Dr. Md. Iqbal Hossain	
02:00 - 02:30pm	Title of Keynote 6: Utilization of Chemical Engineering Principles for Clinical and Nutraceuticals Innovations: A Bangladesh Perspective Speaker: Shoeb Ahmed, Bangladesh University of Engineering and Technology, Bangladesh		Choose Keynote 6 & 8 from  Breakout Rooms
02:30 - 3:00 pm	Title of Keynote 8: Role of Alkali during Catalytic Gasification of Biomass: A Morphological Approach Speaker: Kawnish Kirtania, Bangladesh University of Engineering and Technology, Bangladesh		 Breakout Rooms

Time (BST, GMT+6)	Event	
03:00 - 05:05 pm	Technical Session 5: Materials	Chair: Prof. Dr. Akther Hossain Co-Chair: Dr. Nafisa Islam
	Choose <i>Technical Session 5: Materials</i> from Zoom  Breakout Rooms	
	Paper ID	Paper Title & Author(s)
03:00 - 03:20 pm	06	Investigation of the Electronic Properties of Spinel Type Magnetite: An Ab- Initio approach Authors: Roksana Parvin and Akther Hossain
03:20 - 03:40 pm	113	New and Novel Natural Products into Evidence Based Clinical Practice Authors: Shamsun Nahar Khan
03:40 - 04:00 pm	33	Assessment of Biodegradable Polymer from Potato-based Starch Authors: Md. Mahmud, Md. Shamim Hasan, Md. Riajul Islam Sardar and Bapi Mondal
04:00 - 04:05 pm		Prayer Break
04:05 - 04:25 pm	68	Structure and Swelling of Crosslinked Nanocellulose Foam Authors: Laila Hossain, Joanne Tanner and Gil Garnier
04:25 - 04:45 pm	78	Electrodeposition of Cd-Te Alloys from Choline Chloride based Room Temperature Ionic Liquid Author: Md. Moynul Islam

Time (BST,
GMT+6)

Event

03:00
- 05:05 pm

Technical Session 6: Environment **Chair: Ms. Nahid Sharmin**
Co-Chair: Dr. Chanchal K. Roy

Choose **Technical Session 6: Environment** from Zoom



Paper ID **Paper Title & Author(s)**

03:00 - 03:20
pm

13 Heavy Metal Contamination and Ecological Risk Assessment in The Soil of Tannery Industry at Savar
Authors: Sabiha Momtaz Tisha, Tasnia Rahman Chowdhury and Md. Delwar Hossain

03:20 - 03:40
pm

109 Assessment of Physicochemical Parameters of Surface Waters of Karnafully river at Potenga-Anwara Area, Chittagong, Bangladesh
Authors: A.N.M. Al-Razee, Halima Binte Harub and Ahsan Habib

03:40 - 04:00
pm

116 Effect of Microparticle in the Thermoplastic Starch (TPS) Polymer Plasticized with Glycerol
Authors: Md. Muhaiminul Islam Sohan, Md. Ripon Biswas and Mohammad Nurur Rahman

04:00 - 04:05
pm

Prayer Break

04:05 - 04:25
pm

63 A Process for Waste Water Treatment using Electro Coagulation Reactor (ECR)
Authors: Nahid Jahan, Farhana Ahmed, Nahid Sharmin and Md. Badrul Abedin

04:25 - 04:45
pm

32 Design and Development of a Pilot Plant for Steam Distillation for Essential Oil Production
Authors: Nahid Jahan, Farhana N Ahmed, Md. Robiul Alam, Rajata Suvra Chakrovorty and Md. Forhad Hossain

Time (BST, GMT+6)	Event	
03:00 - 05:05 pm	Technical Session 7: General Chemical Engineering	Chair: Assoc. Prof. Dr. Md. Shahinoor Islam Co-Chair: Dr. Md. Easir Arafat Khan
	Choose Technical Session 7: General Chemical Engineering from	 Breakout Rooms
	Paper ID	Paper Title & Author(s)
03:00 - 03:20 pm	77	Pelletized Compost for Ease of Transportation and Effective Nutrient Release Authors: Tulie Chakma, Zarin Shaima Nidhi and Md. Mominur Rahman
03:20 - 03:40 pm	83	Evaluation of Crops Residues as Pulping Raw Materials: Eggplant, Cassava, Okra and Mulberry Plants Authors: Taslima Ferdous, M. Abdul Quaiyyum and Md Sarwar Jahan
03:40 - 04:00 pm	107	Doping of Zn in PbS Thin Film through CBD Method to Modify of Photo-Electric Properties Authors: Dilip Kumar Sarkar, A. K Mahmud Hasan, Md Shahinuzzaman, Md. Khan Sobyel Bin Rafiq and Md Akhtaruzzaman
04:00 - 04:05 pm		Prayer Break
04:05 - 04:25 pm	108	A Model-Data based Chemical Analysis System Authors: Syeda Sultana Razia, Md Easir Arafat Khan, Anjan K Tula, Lei Zhang and Rafiqul Gani

Time (BST,
GMT+6)

Event

03:00
- 05:05 pm

Technical Session 8: Chair: Prof. Dr. Syeda Sultana Razia
Air Pollution Co-Chair: Prof. Dr. Biplob Kumar Biswas

Choose **Technical Session 8: Air Pollution** from



Breakout Rooms

Paper ID Paper Title & Author(s)

03:00 - 03:20
pm

97 Study of Air Quality in Bangladesh – A Historical Analysis
Authors: S.M. Tanveer Mahtab, Ahaduzzaman Nahid, Ashfaq Iftakher, Mohammad A. Motalib and M. A. A. Shoukat Choudhury

03:20 - 03:40
pm

30 Correlation between Traffic Emission & Traffic Volume, A Case Study of GEC Intersection, Chittagong
Authors: M.A. Tajik, M.S.U. Jaman, M.A.A. Noman, M.T.H. Tuhin and M.S. Rana

03:40 - 04:00
pm

39 Analyzing the Relation between Air Quality Index and Transportation Mode: A Contextual Investigation of Chittagong City Corporation
Authors: Juhaer Akhtab, Asif Mahmud Tanvir and Abdullah Al Noman Prince

04:00 - 04:05
pm

Prayer Break

04:05 - 04:25
pm

58 A critical comparison on the air quality difference between a congested city and a green city and the reasons behind this and how to resolve the problem: A case study on Dhaka & Rajshahi
Authors: Md. Shakhawat Hossain, Mahfuzur Rahman Sakib and Tanzim Ahmed

04:25 - 04:45
pm

86 Impact of Trans-Boundary Pollution (PM-2.5) on the Air Quality of Dhaka City in Bangladesh
Authors: Musfekur Rahman Dihan, S. M. Abu Nayeem and M.A.A. Shoukat Choudhury

Time (BST, GMT+6)	Event	
05:30 - 07:00 pm	Poster Session	Chair: Dr. Md. Tanvir Sowgath Co-Chair: Dr. Nafisa Islam
	<i>Virtual Poster Session</i>	
	Poster ID	Poster Title & Author(s)
	12	Extraction and Evaluation of Antimicrobial Activity of Chitosan from Fungal Species <i>A. niger</i> and <i>S. cerevisiae</i> Authors: Nafisa Islam, Mizanul Hoque, Sayeed Sazzad, Shaafique Chowdhury, Parisa Farzeen and Md. Masirul Afroz
	15	Municipal Solid Waste Management by Extracting Bio-Fertilizer Authors: Farzad Hossain, Arafat A. Bhuiyan, Afshana Morshed and Ahmed Kadhim Hussein
	34	Prospects of Bio Fuel Generation for Transport from Food Waste in Bangladesh Authors: Tashfiqul Islam and Farian Mehjabin
05:30 – 07:00 pm	36	An Analysis on the Morbidity of Slum Dwellers: A Case Study of Rajshahi City Authors: Shahriar Ahmed, Ashiqur Rahman, Alif Al-Maruf, Antar Banik, Abdul Momin, Nazia Hossain and Md. S Zubayer
	41	An efficient LCSoft Tool for Life Cycle Assessment of Chemical Process case studies Authors: Orakotch Padungwatanaroj, Arisa Robin, Nichakorn Kuprasertwong, Rafiqul Gani and Kornkanok Udomwong
	42	Computer-Aided Tool for Fast, Efficient and Sustainable Process Flowsheet Design Authors: Arisa Robin, Orakotch Padungwatanaroj, Nichakorn Kuprasertwong, Anjan Tula and Rafiqul Gani

- 43 Fast, Efficient & Reliable Chemical Properties Estimation through a New Class of Software Tools
Authors: Nichakorn Kuprasertwong, Orakotch Padungwatanaroj, Arisa Robin, Surat Areerat, Anjan Tula, Lei Zhang and Rafiqul Gani
- 44 Computer Aided Tool for Chemical Product Design: New Features and Applications
Authors: Orakotch Padungwatanaroj, Arisa Robin, Nichakorn Kuprasertwong, Anjan Kumar Tula, Lei Zhang and Rafiqul Gani
- 45 Effect of Single and Mixed Inoculum on Biogas Yield during Dry Anaerobic Digestion of Organic Municipal Solid Waste
Authors: Abu Yousuf, Md. Shahadat Hossain, Md. Anisur Rahman, Tahmid Ul Karim and Mahade H. Onik
- 46 Energy Recovery from Alcohol Distillery Spent Wash of Carew and Co.
Authors: Md Hasan Shahariar Raby, Mostofa Shoroar Shuvo, Md Shahadat Hossain and Abu Yousuf
- 05:30 –
07:00 pm
- 57 A Parametric Study on Co-feeding of Municipal Solid Waste and Coal in an IGCC Power Plant with Pre-combustion Carbon Capture
Authors: Md. Shahriar Hossain, Suprio Kamal, Mahbub Chowdhury, Md. Tariful Islam and Kawnish Kirtania
- 66 LPG Storage Safety and Risk Assessment
Authors: Ifat Sharmin and Easir A. Khan
- 70 A Highly Sensitive Poly-arginine based MIP Sensor for Selective Detection of Important Drugs
Authors: Md. Zaved Khan, Md. Morshed Alam, Md. Sadek Bacchu and Md. Romjan Ali
- 73 In Vivo Study of Antidiabetic Effect of Methanolic Natural Extract in Alloxan Induced Diabetic Mice
Authors: Mahbub Chowdhury, Md. Tariful Islam, S.M. Riajul Wahab, A.K.M. Zakir Hossain and Shoeb Ahmed

- 89 Phytoremediation for Chromium Removal from Tannery Waste Contaminated Area
Authors: Ashiqur Rahman, Tanjina Tarannum, Razia Sultana and Syeda Sultana Razia
- 91 Technical and Economic Aspects of Reusing Textile Effluent as Process Water: A Case Study of Denim Dyeing Factory
Authors: Mesbah Ahmad, Majed Alam Abir and Mohidus Samad Khan
- 110 Optimal Site Selection of Solar Power Plants in Bangladesh Using Fuzzy Logic
Authors: Md. Hasan Ali, Md. Abubakar Siddique and Tanveer Mahmud Silva
- 111 Hot Air Drying of Banana (*Musa paradisiaca* L.) Peel: Kinetics and Mathematical Modelling
Authors: Maisa Rahman, Taiaba Binte Hossain, Sadia Sattar, Md. Sajjad Hossain and Pabitra Chandra Das
- 05:30 –
07:00 pm 120 Improvement of mechanical properties of nanocomposite hydrogel using metal ion binding
Authors: Hridoy Roy, Sumaia Afroz, Amzad Hossain, Chanchal K.Roy and Shakhawat H.Firoz
- 121 Investigation of Electrical Double Layer Capacitance (EDLC) Behavior of Activated Carbon Derived from Waste Tire
Authors: Mysha Momtaz, Akther H. Reaz, Yeasin A. Tarek, Nusrat Jahan, Hridoy Roy, Ayesha Sharmin, Chanchal Roy and Shakhawat Firoz
- 124 Production and Evaluation of Biodiesel from Pithraj (*Aphanamixis polystachya*) Seeds Available in Bangladesh
Authors: Hd. Razu Ahmmed, Md. Ikramul Hasan, Mohammad Ismail and Md. Golam Mortuza
- 125 Nano Fillers to Reduce Water Absorption of Natural Fibre Reinforced Polyester Matrix Composite
Authors: M.A. Islam and M.S. Haque

- 127 Endosome Membrane Coated Nanogel: An Advanced Treatment for Cervical Cancer
Authors: Arjan Saha, Kashfia Nehrin, Mahazabin Mim and Sourav Sutradhar
- 130 Treatment of Tannery Wastewater through Calcium Carbonate from Mollusca (Snail Shell)
Authors: Adhir Chandra Paul, Readul Alam Shuvo and Md. Moshir Rahman Tushar
- 131 Temperature Dependence of Magnetic Hysteresis Loop of V₂O₅ added Ni-Co-Zn Ferrites
Authors: Muhammad Samir Ullah, Md. Firoz Uddin, Rowshon Satara and Sm Rubayatul Islam
- 05:30 – 07:00 pm 132 Variations of Foot Measurement of Primary School Going Students through Binary Logistic Regression Analysis-A Case Study in Khulna Region
Authors: Adhir Chandra Paul, Md. Nafis Sadik and Md. Shahedur Rahman Rony
- 133 Effect of Leather Trimming and Neem Fiber on the Mechanical and Thermal Property of Cement Based Materials
Authors: Adhir Chandra Paul, Syed Ishmam Rakin and A.S.M. Ragib Ahasan Munna
- 135 Investigation of the structure and activity of class Id ribonucleotide reductase relevant to vital therapeutic interventions
Authors: Aditi Dey Tithi, Yeadd Jewel, Shoeb Ahmed and Jahid Ferdous

21 December 2020, Monday

Time (BST, GMT+6)	Event
08:40 - 10:00 am	Technical Session 9: Petroleum Chair: Assoc. Prof. Dr. Md. Aziz Rahman Co-Chair: Dr. Md. Easir Arafat Khan

Choose **Technical Session 9: Petroleum** from



Breakout Rooms

	Paper ID	Paper Title & Author(s)
08:40 - 09:00 am	55	Data-driven Connectionist Model for Reservoir Quality Index Prediction Authors: Mohammad Islam Miah and Salim Ahmed
09:00 - 09:20 am	40	The Effects of Drilling Fluid Swelling from Gas Dissolution on Gas Kick Detection+ Authors: Kaushik Manikonda, Abu Rashid Hasan, Nazmul Rahmani and Mohammad Azizur Rahman
09:20 - 09:40 am	09	Quantification of Inherent Energy Resilience of Process Systems: Gas Sweetening Unit Authors: Dr Sirshendu Guha and Souvik Guha

Time (BST,
 GMT+6)

Event

08:40 - 10:00
 am

Technical Session 10: Energy Chair: Dr. Abu S. Jamaluddin
 Co-Chair: Dr. Kawnish Kirtania

Choose *Technical Session 10: Energy* from


 Breakout Rooms

Paper ID **Paper Title & Author(s)**

08:40 - 09:00
 am

115 Future Clean Energy Pathways: Carbon Capture,
 Renewables, Batteries, or Fossil Fuels – What Should We
 Invest on?

Authors: Manali Zantye, Akhil Arora and M.M. Faruque
 Hasan

09:00 - 09:20
 am

37 Development, Testing and Demonstration of a Fuel-Flexible
 Burner for Fired Heaters

Authors: Abu Jamaluddin, Charles Benson, Roberto
 Pelizzari, Seth Marty, Thomas Young, Rex Isaacs and Joseph
 Renk

09:20 - 09:40
 am

16 Non-biodegradable Solid Waste Management by
 Extracting Pyrolytic Fuel

Authors: Farzad Hossain, Arafat A. Bhuiyan, Afshana
 Morshed and Ahmed Kadhim Hussein

09:40 - 10:00
 am

17 Assessment of Thin Cement-Sand Mortar Sheet
 Performance as Proton Exchange Membrane, A Study in
 Bioelectrochemical System

Authors: M.S. Shajol, M.T.H. Tuhin and R. Hasan

Time (BST, GMT+6)	Event	
08:40 - 10:00 am	Technical Session 11: Materials	Chair: Prof. Dr. Al-Nakib Chowdhury Co-Chair: Assoc. Prof. Dr. Nahid Sanzida
	Choose <i>Technical Session 11: Materials</i> from	 Breakout Rooms
	Paper ID	Paper Title & Author(s)
08:40 - 09:00 am	02	Effect of Types of Natural Fibers on Tensile Properties of Epoxy based Polymer Composite Authors: Salman Haque and Aminul Islam
09:00 - 09:20 am	95	Color Deviation of Copper under Different Environments Authors: Samiul Kaiser and Mohammad Salim Kaiser
09:20 - 09:40 am	123	Hard Particle-like Behavior Observed in a Real Liquid Hydrocarbon System Authors: Rizwanur Rahman, Thomas F. Headen and Michael P. Hoepfner

Time (BST, GMT+6)	Event
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08:40 - 10:00 am	Technical Session 12: Environment Chair: Prof. Dr. Md. Abdul Matin Co-Chair: Prof. Dr. Tanvir Ahmed
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Choose **Technical Session 12: Environment** from



Paper ID	Paper Title & Author(s)
08:40 - 09:00 am	18 Evaluation of a Single Pass Filtration System Using Textile Wastewater Authors: M.T.H. Tuhin, M.A. Tajik, I. Shawkat and S.H. Shahrin
09:00 - 09:20 am	21 Implementation of Rain Water in Preparatory Processes as well as Dyeing of Knitted Cotton Fabric and Compare the Effects with Ground Water Authors: Md Samiul Alom, Farjana Badhon, Shampa Rani Haldar and Tonmoy Saha
09:20 - 09:40 am	29 Innovated Equation Indicates the Scientific Design of Green Jute Plant Utilities in Paper, Jute and Textile Sectors Authors: Muhammad Rabiul Alam

Time (BST, GMT+6)	Event
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10:00 am - 12:00 pm	Session for Memorial Lectures Chair: Prof. Dr. Syeda Sultana Razia For Late Prof. Dr. SAM Mannan and Prof. Dr. Nazmul Karim Co-Chair: Assoc. Prof. Dr. M.M. Faruque Hasan
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Time (BST, GMT+6)	Event		
12:00 - 01:00 pm	Keynote 9 & 11	Chair: Prof. Dr. Hesham Ali El-Enshasy Co-Chair: Prof. Dr. Md. Shakhawat H. Firoz	Details to Join Virtually
12:00 - 12:30 pm	Title of Keynote 9: Achieving Zero Waste Towards a Sustainable Society Speaker: Md. Zahangir Alam, International Islamic University Malaysia, MY		Choose Keynote 9 & 11 from 
12:30 - 01:00 pm	Title of Keynote 11: Bioactive Papers: A Futuristic Tool for Health, Food, and Environmental Applications Speaker: Mohidus Samad Khan, Bangladesh University of Engineering and Technology, Bangladesh		 Breakout Rooms
12:00 - 01:00 pm	Keynote 10 & 12	Chair: Prof. Dr. Raman Singh Co-Chair: Dr. Kazi Bayzid Kabir	Details to Join Virtually
12:00 - 12:30 pm	Title of Keynote 10: Textile Wastewater Treatment Challenges and Prospects of Electrochemical Oxidation Processes Speaker: Md. Shahinoor Islam, Bangladesh University of Engineering and Technology, Bangladesh		Choose Keynote 10 & 12 from 
12:30 - 01:00 pm	Title of Keynote 12: Electroporation in Biofuel Processing Speaker: Abu Yousuf, Shahjalal University of Science and Technology, BD		 Breakout Rooms
Time (BST, GMT+6)	Break		
01:00 - 2:00 pm	<i>Lunch and Prayer Break</i>		

Time (BST,
 GMT+6)

Event

02:00 – 03:20
 pm

Technical Session 13:
Energy

Chair: Prof. Dr. Md. Mominur Rahman
Co-Chair: Assoc. Prof. Dr. Md. Tanvir
Sowgath

Choose **Technical Session 13: Energy** from



Paper
ID

Paper Title & Author(s)

02:20 - 02:40
 pm

103

Dry and Wet Torrefaction of Biomass: A Comparative Study

Authors: Mst. Farzana Asad, Naimul Arefin, Md Tahseen
 Islam, Anas Hossain Makki and Kazi Bayzid Kabir

02:40 - 03:00
 pm

102

Life-Cycle Impact Assessment of Fossil Power Plants with
 and without CO₂ Capture Evaluating the Possibility of CO₂
 Utilization

Authors: Nafisa Tarannum, Banhee Shikha Roy Brishti, Sadia
 Dima and Kawnish Kirtania

03:00 - 03:20
 pm

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Environmental Sustainability of Cooking Fuels in
 Bangladesh: a Life-Cycle Assessment of Fuels in Use and
 their Potential Alternatives

Authors: Sk. Yasir Arafat Siddiki, M.G. Toufik Ahmed,
 Kawnish Kirtania and Kazi Bayzid Kabir

Time (BST, GMT+6)	Event
02:00 – 03:20 pm	Technical Session 14: General Chem Engg Chair: Prof. Dr. Biplob Kumar Biswas Co-Chair: Dr. Nurur Rahman
	Choose Technical Session 14: General Chem Engg from  Breakout Rooms
	Paper ID Paper Title & Author(s)
02:00 - 02:20 pm	71 Performance Improvement Opportunities of Compressed Air System: Roadmap and Simulation Authors: Mahmudul Hasan, Anindya Karmaker and Ahaduzzaman Nahid
02:20 - 02:40 pm	50 Preparation of Activated Carbon Fiber from Cotton Waste: Evaluation of Performance for Basic Textile Dye Methylene Blue Adsorption Authors: Moontaha Farin, Sumaiya Jasmine and Easir A. Khan
02:40 – 03:00 pm	96 Hydrogen Production from Dry Reforming of Natural Gas: A Thermodynamic and Kinetic Study Authors: M.G. Toufik Ahmed, Sk. Yasir Arafat Siddiki, Kawnish Kirtania and Kazi Bayzid Kabir
03:00 – 03:20 pm	105 Application of Fluorescence EEM for the Detection of Adulterants in Honey Authors: Abdullah Iqbal and Mizuki Tsuta

Time (BST, GMT+6)	Event
03:25 – 05:00 pm	Plenary Lecture 3 & 4 Chair: Prof. Dr. Iqbal M Mujtaba Co-Chair: Prof. Dr. M.A.A. Shoukat Choudhury
03:25 - 04:10 pm	Title of Plenary Lecture 3: Nature-Inspired Chemical Engineering, a NICE Approach to Sustainability and Innovation Speaker: Marc-Olivier COPPENS, University College London, UK
04:10 - 04:15 pm	Prayer Break
04:15 - 05:00 pm	Title of Plenary Lecture 4: From Molecules to a Circular Chemical Industry Speaker: Andre Bardow, ETH Zurich, Switzerland

Time (BST, GMT+6)	Event
05:30 - 07:00 pm	Poster Session Chair: Dr. Md. Tanvir Sowgath Co-Chair: Dr. Nafisa Islam <i>Virtual Poster Session</i>
	Poster ID Poster Title & Author(s)
05:30 - 07:00 pm	<i>Same as 20 December</i> <i>Same as 20 December</i>

22 December 2020, Tuesday

Time (BST, GMT+6)	Event
09:00 – 11:30 am	Plenary 5, Keynote 13 & 14, and Closing Ceremony Chair: Prof. Dr. Ijaz Hossain Co-Chair: Prof. Dr. Syeda Sultana Razia
09:00 - 09:45 am	Title of Plenary Lecture 5: Artificial Intelligence in Chemical Engineering: Past, Present, and Future Speaker: Venkat Venkatasubramania, Columbia University, USA
09:45 - 10:15 am	Title of Keynote Lecture 13: Creating Multifunctional Hybrid Cellulose-Metal Aerogels with Hierarchical Structures Speaker: Saad A Khan, North Carolina State University, USA
10:15 - 10:45 am	Title of Keynote Lecture 14: Graphene Coatings: A Disruptive Approach to Durable Corrosion Resistance of Metals and Alloys Speaker: Raman Singh, Monash University, Australia
10:45 - 11:00 am	Concluding Remarks and Vote of Thanks Prof. Dr. Rafiqul Gani and Prof. Dr. Syeda Sultana Razia
