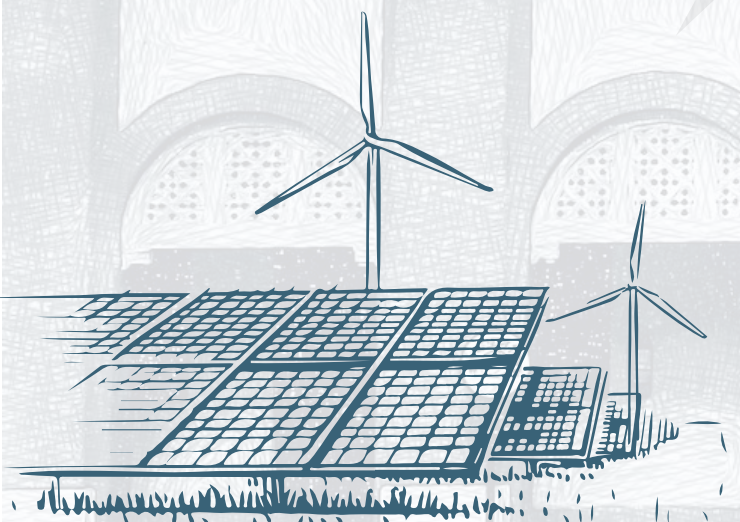




PROGRAM SCHEDULE

14-15th December, 2023



Energy Conference 2023: National and Global Issues (ENCON23)

14-Dec-23	
Inaugural Event, ENCON23 (ECE Seminar Room, Level 8, ECE Building)	
8:30 - 9:30 am	Registration
09:40 am	Guests take their seats
09:45 - 09:55 am	Welcome Address by Conference Secretary Prof. Farseem Mannan Mohammedy, Director, IESD
09:55 - 10:00 am	Address by Chair of Technical Committee, Prof. Mohammad Tamim, PMRE, BUET
10:00 - 10:05 am	Address by Special Guest Prof. Md. Quamrul Ahsan, Former Professor, EEE, BUET
10:05 - 10:10 am	Address by the Patron Prof. Abdul Jabbar Khan, Honorable Pro-Vice Chancellor, BUET
10:10 - 10:20 am	Address by the Chief Guest Dr. Tawfiq-e-Elahi Chowdhury Bir Bikram, Former Honorable Advisor to Prime Minister, Govt. of the People's Republic of Bangladesh
10:20 - 10:25 am	Address by the Chief Patron Prof. Satya Prasad Majumder, Honorable Vice Chancellor, BUET
10:25 - 10:30 am	Address by the Conference Chair Prof. Md. Zahurul Haq, ME, BUET
10:35 - 11:00 am	Tea Break
11:00 - 12:00 pm	<p>Key Note 1: Prof. Prashanta Dutta, Washington State University, USA Topic: Recent Advancements in Green Hydrogen Production Room no: ECE 625 Session Chair: Prof. Dr. M. Anwar Hossain</p>
12:00 - 01:00 pm	<p>Key Note 2: Dr. Rashid Hasan, Texas A&M University, USA Topic: Current Advancements in Multiphase Flow Leak Detection Room no: ECE 625 Session Chair: Prof. Dr. M. Anwar Hossain</p>
01:00 - 02:00 pm	Prayer Break and Lunch
2:00 - 3:30 pm	<p>Technical Session A1 : Sustainable and Renewable Energy Room no: ECE 625 Session Chair: Prof. Dr. Md. Quamrul Islam</p> <p>1. Paper ID: 20 Fahem Montasir (Bangladesh University of Engineering and Technology) "Analysis of Highly Efficient Hybrid Perovskite Solar Cell"</p> <p>2. Paper ID: 26 Dhiman Dey, Himangshu Ranjan Ghosh (University of Dhaka) "Optimal Design Parameters of a Micro Vertical Axis Wind Turbine (VAWT) using Qblade Simulation"</p> <p>3. Paper ID: 59 Mohammad Fazlul Haque; Dipta Akash Roy (Bangladesh University of Engineering & Technology); Syed Shahed (Ahsanullah University of Science and Technology) "An Attempt to Optimize Design Parameters of Hawt Blade"</p>

2:00 - 3:30 pm

4. Paper ID: 29

Chowdhury Famida Tabassum; Foysal Ahmed; Dewan Hasan Ahmed (Ahsanullah University of Science and Technology)
"Investigation of water wave characteristics and impact behavior on the side wall"

5. Paper ID: 69

Iftekhar Ahmed (Independent University of Bangladesh); Feroz Ahmed (Independent University, Bangladesh)
"Sustainable Energy Management for Island Communities: A Role Model using HOMER Optimization and Priority-Based SCADA Operation"

6. Paper ID: 47

Prateek Joshi (National Renewable Energy Laboratory)
"Identifying Potential Candidates for Renewable Energy Zones (REZ) in Bangladesh"

Technical Session A2: Energy and 4IR

Room no : ECE 627

Session Chair: Prof. Dr. Md. Ehsan

1. Paper ID: 02

Dr. Mohammad Islam Miah (Chittagong University of Engineering & Technology); Dr. Arup Kumar Biswas (Hydrocarbon Unit)
"Predictive Model of Water Saturation by Coupling Geophysical Log Data and Machine Learning Approach"

2. Paper ID: 12

Himadri Shakher Das (Bangladesh University of Engineering and Technology); Md. Ashiqul Islam Shuvo (Chittagong University of Engineering and Technology); Akhbar Al Abedin (Bangladesh University of Engineering and Technology)
"Production Forecast for a North Sea Oil Field using Artificial Intelligence Techniques"

3. Paper ID: 15

AKM Badrul Alam (Military Institute of Science and Technology)
"A Critical Review of CO2 Value Chain and Machine Learning with Bangladesh Perspective"

4. Paper ID: 13

Md. Ashikur R Joarder; Md Shohanur Rahman; Fariha Seraj (Bangladesh University of Engineering and Technology) "Evolutionary Algorithm based Design Framework to Generate Environmentally Sensitive Building Forms Considering Local Codes"

5. Paper ID: 56

Md. Amir Hamza; Md. Sohag Hossain; Md. Hasan H Ali; Ahbab Faiyaj Haque; Omar Faruk Badhon (Khulna University of Engineering & Technology)
"A Low-Cost Arduino-Based LPG Gas Leak Detector and Alarm System for Preventing Fire Accidents in Residential Buildings"

6. Paper ID: 48

Mahbubur Rahman (Bangladesh University of Engineering and Technology)
"Design and Analysis of Transmission Pipeline for Sustainable Gas Supply to Shahjibazar Industrial Area"

Technical Session A3: Energy Efficiency and Conservation of Energy

Room no.: ECE 632

Session Chair: Prof. Dr. Jibon Podder

1. Paper ID: 11

Towhidul Islam (University of Louisiana); Yousuff Chowdhury (Chevron BD Ltd); Mahbub Rahman (Bangladesh University of Engineering and Technology)

"Production Optimization of Natural Gas Field in the Surma Basin"

2. Paper ID: 31

Md. Minhajul Islam (RMG Sustainability Council); Md. Tanvir Siraj (Bangladesh University of Engineering and Technology); Md Mehedi Hasan (Khulna University of Engineering & Technology)

"Scale Formation's Impact on Fire Tube Heat Transfer: Implication for Boiler's Energy Efficiency"

3. Paper ID: 65

Mohammad Irtiza Masroor; Farin Sadaf; Mehnaz Hossain (Ahsanullah University of Science and Technology); Mahmudul Hasan (Northern University Bangladesh); Nahid-Ur-Rahman Chowdhury (Ahsanullah University of Science and Technology)

"A Proposed Optimization Strategy for Energy Savings in Residential Sector"

4. Paper ID: 25

Mainul Hossain Yaad; Md Adnan Quaium; A. B. M. Alim Al Islam (Bangladesh University of Engineering and Technology)

"Energy Scavenging for IoT in Harsh Environments"

5. Paper ID: 36

Maksudur Rahman; Farseem Mannan Mohammedy; Abid Hasnat (Bangladesh University of Engineering and Technology)

"Estimating Per Capita Energy Consumption for Bangladesh Transportation Sector"

6. Paper ID: 53

Md. Sabid Khan; Rahat Redwan (Ahsanullah University of Science and Technology); Mahmudul Hasan (Northern University Bangladesh); Nahid-Ur-Rahman Chowdhury (Ahsanullah University of Science and Technology)

"Developing an Electric Vehicle Charging Strategy for Commercial Areas in Dhaka Metropolis"

2:00 -3:30 pm

3:30 - 3:45 pm

Tea and Prayer Break

Technical Session B1: Energy Storage

Room no : ECE 625

Session Chair: Prof. Dr. M. Rezwan Khan

1. Paper ID: 14

Md. Khairul Islam (Rajshahi University of Engineering and Technology)

"Fabrication of Calcium Strontium Copper Titanate Electroceramic for Energy Storage Application"

2. Paper ID: 22

Md. Abid Al Morshed (Bangladesh University of Engineering and Technology); Md Alif Mahmud (Sonargaon University); Mir Atiqur (Technovative Solution); Md. Zahurul Haq (Bangladesh University of Engineering and Technology)

"Advanced Adiabatic Compressed Air Energy Storage System with Phase Changing Materials as Thermal Energy Storage"

3. Paper ID: 40

Sazif Noor Rabi; Tousif Jamee; Abrar Amin Khan; Md. Ashiqur Rahman (Bangladesh University of Engineering and Technology)

"Impact of Wettability on the Energy Storage Performance of Crumpled Graphene Supercapacitor"

4. Paper ID: 54

Himadry Barua; Basel Ahmad Shabab (Bangladesh University of Engineering & Technology); Fahim Afrad (Chittagong University of Engineering & Technology); Md. Mehedi Hasan; Maruf Ahmed (Bangladesh University of Engineering and Technology)

"Advancements in Underground Hydrogen Storage: A Comprehensive Review of Technologies and Challenges"

5. Paper ID: 63

Fatema Tuz Zohura; Md. Shakhawat H. Firoz (Bangladesh University of Engineering and Technology)

"Manipulating Molecular Level Interaction of Acidic and Basic Aqueous Electrolytes Using Choline chloride-based Deep Eutectic Solvent for Supercapacitor Application"

Technical Session B2: Energy and Power

Room no: ECE 627

Session Chair: Prof. Dr. Shahidul Islam Khan

1. Paper ID: 07

Roshlan Rahman Dipto; Safius S Shuddho; Aqueeb A Sunny; A.S Mollah (Military Institute of Science and Technology)

"Analysis of Neutronics Parameters of Different Annular Fuel using Monte Carlo Code OpenMC Utilizing JEFF-3.3 and ENDF/B-VIII.0 Nuclear Data Libraries"

2. Paper ID: 46

Dipta Akash Roy (Bangladesh University of Engineering and Technology); Md Ahsan Ullah; Subrata Dash Shuvo (University of Dhaka)

"An Attempt to Improve the Efficiency of CZTSSe Solar Cell Using a P+ type Al-Ga-Sb as a Bi-layer Material"

3. Paper ID: 51

Zarin Anjum Ananna; Khadiza Talukder (Ahsanullah University of Science and Technology); Mahmudul Hasan (Northern University Bangladesh); Nahid-Ur-Rahman Chowdhury (Ahsanullah University of Science and Technology)

"A Comprehensive Survey on Hybrid Microgrid Energy Management"

4. Paper ID: 35

Omor Faruk Safwan (Shahjalal University of Science and Technology)

"An evaluation of the environmental impacts and economic performance and the recycling of automobile batteries: Bangladesh perspective"

3:45 - 5:00 pm

3:45 - 5:00 pm	<p>Technical Session B3: Energy Policy and Economics Room no.: ECE 632 Session Chair: Prof. Dr. M. Nurul Islam</p> <p>1. Paper ID: 03 Mashfiq Ahasan Hridoy (Centre for Policy Dialogue) "Renewable Energy Policy (Draft) 2022: A Comprehensive Assessment"</p> <p>2. Paper ID: 19 Musfekur Rahman Dihan; Troyee Naha; Kawnish Kirtania (Bangladesh University of Engineering and Technology) "A Sustainable Waste-to-Energy and Nutrient Reclamation Strategy: A Case Study on Dhaka City"</p> <p>3. Paper ID: 27 Sheikh Md. Sujan (Bangladesh University of Engineering and Technology); K. M. Kayes Ibne Zakir (Islamic University of Technology); Prof. Dr. Md. Shafiqul Islam (Bangladesh University of Engineering and Technology); Mohammed Fahadul Islam (Chittagong University of Engineering and Technology) "Prospect of Solar Thermal Power Plant in Bangladesh"</p> <p>4. Paper ID: 44 Ummay Salma; Kawnish Kirtania; Kazi Bayzid Kabir (Bangladesh University of Engineering and Technology) "Hydrothermal Carbonization of Municipal Solid Waste in Bangladesh: A Pilot Study"</p> <p>5. Paper ID: 66 Mir Jubaier Hassan; Tasnimun Razin; Md. Ziaur Rahman Khan (Bangladesh University of Engineering and Technology) "Residential Solar PV System: Challenges and Policy Recommendation in Bangladesh"</p>
5:00 - 6:30 pm	Networking and Traditional Pitha Utshob
15-Dec-23	
9:00 – 9:30 am	<p>Invited Lecture 1: Prof. Dr. Mikhail Slipchenko, Purdue University, USA. Topic: Advances in Laser Sources for Femtosecond, Picosecond, and Nanosecond High-speed Laser Diagnostics Room no: ECE 625 Session Chair: Prof. Dr. M. Fazli Ilahi</p>
9:30 - 10:00 am	<p>Invited Lecture 2: Dr. Venkat Athmanatan, Purdue University, USA. Topic: Sustainable Combustion: Revolutionizing Power Generation with hydrogen fueled Rotating Detonations Engines Room no: ECE 625 Session Chair: Prof. Dr. M. Fazli Ilahi</p>
10:00 - 10:30 am	<p>Invited Lecture 3: Dr. M. Rafiqul Awal., MB Enterprise International Topic: Crossroads of Industrial Revolution: Defining Sustainable Cleaner Energy Technology Pathway. Room no: ECE 625 Session Chair: Prof. Dr. M. Fazli Ilahi</p>
10:30 – 11:00 am	Tea Break
11:00 - 12:00 pm	<p>Key note 3: Dr. Syed Islam, Federation University, Australia. Topic: Journey Toward Net Zero by 2050 : Lessons Learnt from Australian Experience Room no: ECE 625 Session Chair: Prof. Dr. Md. Quamrul Ahsan</p>
12:00 - 12:30 pm	<p>Invited Lecture 4: Dr Ismail bin Mohd Saaid, Universiti Teknologi PETRONAS, Malaysia. Topic: Improving Hydrocarbon Recovery in The Presence of Stringent Environmental Requirements Through Novel Reservoir Conformance Control Room no: ECE 625 Session Chair: Prof. Dr. Md. Quamrul Ahsan</p>

12:30 - 2:30 pm

Prayer Break and Lunch

Technical Session C1: Biofuels

Room no : ECE 625

Session Chair: Prof. Dr. Mohammad Arif Hasan Mamun

1. Paper ID: 06

Md. Atik Fayshal; Md Khalekuzzaman (Khulna University of Engineering and Technology)

"Optimizing biocrude production and quality through co-hydrothermal liquefaction of fecal sludge and organic solid waste"

2. Paper ID: 43

Dr. Kawnish Kirtania; Rakesh Bhowmick (Bangladesh University of Engineering and Technology)

"Bio-crude Oil Production Through Co-hydrothermal Liquefaction of Sawdust and Cow Manure"

3. Paper ID: 72

Mohammad Ismail (University of Dhaka)

"Carbon Capture and Hydrogen Sulfide Removal from Biogas by Adsorption Process"

Technical Session C2: Energy and Environment

Room no: ECE 627

Session Chair: Prof. Dr. M. Feroze Ahmed

1. Paper ID: 08

Lutfur Rahman (GreenTech Foundation Bangladesh)

"Towards a Green Revolution: Climate Change Mitigation through Decarbonization."

2. Paper ID: 33

Sazid Hasan; Tasviul Ibn Kamal; Dr. A N Mustafizul Karim (Ahsanullah University of Science and Technology)

"Assessing Carbon Emission Of A Local Food Industry: A Quantitative Analysis."

3. Paper ID: 04

Md. Zahirul Ahsan; Md. Rakib Molla; Zunayed Zakir Arnab; Md. Noor A Alam (Elite Hitech Industries Ltd.)

"AI-Enhanced Energy-Efficient Air Conditioning for Sustainable Comfort"

2:30 - 3:15 pm

Technical Session C3: Energy Modelling

Room no: ECE 632

Session Chair: Prof. Dr. Maglub Al Nur

1. Paper ID: 10

Md. Sayed Hasan Rifat; Mohammad Jahangir Alam (Bangladesh University of Engineering and Technology)

"Device Modeling and Optimization of Lead-Free Perovskite/Kesterite Tandem solar cell using SCAPS-1D simulation"

2. Paper ID: 62

Foysal Ahmed Neerob (Bangladesh University of Engineering and Technology); Ugur Pasaogullari (University of Connecticut); Md Aman Uddin (Bangladesh University of Engineering and Technology)

"Computational Modeling of Thermal Management of Proton Exchange Membrane Water Electrolyzer"

3. Paper ID: 67

Asif Hassan; Mostafizar R. Rony; Sadia Mortuza; Nirendra Nath Mustafi (Rajshahi University of Engineering and Technology)

"CFD Modeling, Parametric Analysis, and Comparative Study of Earth-to-Air Heat Exchanger Designs for an Office Room"

3:15 - 3:30 pm	Tea and Prayer Break
3:30 - 5:15 pm	<p>Panel Discussion I: Energy Policy Panelist: 1. Siddique Zobair, Addl. Secretary (Retd) 2. Ratan Kumar Ghosh, Member SHREDA 3. Md. Monowar Hasan Khan, Joint Secretary, Power Division</p> <p>Panel Discussion II: Energy Technology Panelist: 1. Nirod Chandra Mondal, Joint Secretary, Power Division. 2. Dr. Md. Moniruzzaman, Member, BEPRC 3. Md. Shameem Khan, Director General, Hydrocarbon Unit</p> <p>Panel Discussion III: Energy Business and Finance Panelist: 1. Mamun Rashid, PwC 2. Mohammad Alauddin, Rector, Bangladesh Power Management Institute 3. S. M. Monirul Islam, Deputy CEO & CFO, IDCOL Room no : ECE Seminar Room Moderator: Mollah M. Amzad Hossain, Editor - Energy and Power</p>
5:15 - 5:30 pm	Prayer Break
5:30 - 6:30 pm	<p>Key note 4: Dr. Mohammad Tamim, Bangladesh University of Engineering and Technology Topic: Meeting the Paris Accord and SDG7 Objectives of Bangladesh Room no: ECE 625 Session chair: Prof. Dr. M. M. Shahidul Hassan</p>
	Closing Ceremony, ENCON23
6:30 – 6:40 pm	Platinum Session by Saif Powertec Ltd.
6:40 – 6:50 pm	Platinum Session by Summit Group
6:50 - 6:55 pm	Address by Patron Prof. Abdul Jabbar Khan, Honorable Pro-Vice Chancellor, BUET
6:55 - 7:00 pm	Address by the Special Guest Maj. Gen. (Retd.) Moin Uddin, MD, EGCB
7:00 - 7:10 pm	Student Project Award
7:10 - 7:20 pm	Best Paper Award
7:20 - 7:30 pm	Address by the Chief Guest Prof. M. Anwar Hossain, former Vice Chancellor, IUT and AUST
7:30 - 7:35 pm	Address by the Chief patron Prof. Satya Prasad Majumder, Honorable Vice Chancellor, BUET
7:35 - 7:40 pm	Concluding remarks by Conference Chair, Prof. Md. Zahurul Haq, ME, BUET
7:40 - 09:00 pm	Vice Chancellor's Banquette