7th International Conference on Electrical Information and Communication Technology (EICT 2025)
(18-20 December 2025, KUET, Khulna, Bangladesh)

Conference Program at A Glance

Day 1: December 18, 2025 (Thursday)				
09:30 AM – 10:00 AM	Registration & Kit Distribution			
10:00 AM – 10:45 AM	Inauguration Ceremony Zoom Link: https://bdren.zoom.us/j/8187691279?pwd=XbadpwgdZ1l2ZS6flhfYuowDV422mF.1&omn=95739533912			
10:45 AM – 11:00 AM	Session for Sponsors			
11:00 AM – 11:15 AM	**Tea Break**			
11:15 AM – 12:00 PM	Keynote Session–I (Physical)			
12:00 PM –12:45 PM	Keynote Session–II (Physical)			
12.45 PM – 02:00 PM	**Prayer & Lunch Break**			
02:00 PM – 03:30 PM	**Parallel Technical Session A**			
	D1A1(P1)	D1A2(P2)	D1A3(P3)	D1A4(P4)	D1A5(V1)
03:30 PM – 03:45 PM	**Prayer & Tea Break**			
03:45 PM – 05:15 PM	**Parallel Technical Session B**			
	D1B1(P5)	D1B2(P6)	D1B3(P7)	D1B4(P8)	D1B5(V2)
08:00 PM – 08:30 PM	Special Keynote Session (Virtual)			
End of Day 1				
Day 2: December 19, 2025 (Friday)				
09:00 AM – 10:30 AM	**Parallel Technical Session A**			
	D2A1(P9)	D2A2(P10)	D2A3(V3)	D2A4(V4)	D2A5(V5)
10:30 AM – 10:45 AM	**Tea Break**			
10:45 AM – 11:30 AM	Keynote Session–III (Physical)			
11:30 AM – 12:15 PM	Keynote Session–IV (Virtual)			
12:15 PM – 01:00 PM	Keynote Session–V (Virtual)			
01:00 PM – 02:30 PM	**Prayer & Lunch Break**			
2:30 PM – 04:00 PM	**Parallel Technical Session B**			
	D2B1(P11)	D2B2(P12)	D2B3(P13)	D2B4(V6)	D2B5(V7)
04:00 PM – 04:15 PM	**Prayer & Tea Break**			
04:15 PM – 05:30 PM	**Parallel Technical Session C**			
	D2C1(V8)	D2C2(V9)	D2C3(V10)	D2C4(V11)	D2C5(V12)
05:30 PM – 06:00 PM	Break			
06:00 PM – 10:00 PM	**Closing Ceremony & Conference Dinner**			
End of Day 2				

Day 3: December 20, 2025 (Saturday)	
08:30 AM – 05:00 PM	Sight-Seeing Tour
End of Day 3	

Keynote Sessions

Keynote Session–I
Date: December 18, 2025
Time: 11:15 AM – 12:00 PM   Venue: **Auditorium**
Title: Digital Health Technology Innovations for Home Care
Speaker: **Prof. Dr. Fong-Chin Su**, National Cheng Kung University, Taiwan

Keynote Session–II
Date: December 18, 2025
Time: 12:00 PM – 12:45 PM   Venue: **Auditorium**
Title: Technical Challenges and Future Prospect of Underwater Optical Wireless Communications
Speaker: **Prof. Dr. Masanori Hanawa**, University of Yamanashi, Japan

Special Keynote Session
Date: December 18, 2025
Time: 08:00 PM – 08:30 PM   Venue: **ECE 203**
Title: Holistic Assessments
Speaker: **Muhammad H Rashid, Fellow IET (UK), Life Fellow IEEE**, Florida Polytechnic University, USA
Zoom Link: https://bdren.zoom.us/j/8187691279?pwd=XbadpwgdZ1l2ZS6flhfYuowDV422mF.1&omn=94696934262

Keynote Session–III
Date: December 19, 2025
Time: 10:45 AM – 11:30 PM   Venue: **ECE 203**
Title: Learning and Explainability over Time-series and Data Stream
Speaker: **Prof. Dr. Engelbert Mephu Nguifo**, University Clermont Auvergne, France

Keynote Session–IV
Date: December 19, 2025
Time: 11:30 AM – 12:15 PM   Venue: **ECE 203**
Title: Heat, Cold, and Power: How Extreme Weather is Shaping Electricity Use in Alberta, Canada and Southwestern Bangladesh
Speaker: **Prof. Dr. Quazi Khalid Hassan**, University of Calgary, Canada
Zoom Link: https://bdren.zoom.us/j/8187691279?pwd=XbadpwgdZ1l2ZS6flhfYuowDV422mF.1&omn=92554194741

Keynote Session–V
Date: December 19, 2025
Time: 12:15 PM – 01:00 PM   Venue: **ECE 203**
Title: Short-Term Wind Speed Forecasting using Temporal Fusion Transformers
Speaker: **Prof. Dr. Jai Govind Singh**, Asian Institute of Technology, Thailand
Zoom Link: https://bdren.zoom.us/j/8187691279?pwd=XbadpwgdZ1l2ZS6flhfYuowDV422mF.1&omn=92554194741

EICT 2025 Conference Program in Details

Day 1: Parallel Technical Session A (D1A1) Physical - 1
December 18, 2025

Venue: ECE 203	Time: 02:00 PM - 03:30 PM

Session Title: Optoelectronic Devices, Materials and Nanotechnology

PID-800	AI-Assisted Performance Prediction and Design of Eco-Friendly Perovskite Solar Cells Using SCAPS *Author: Md. Arifur Rahman, Samiul Hoque Kashfi, Ayesha Akter, Tarekul Islam, Bayazid Hossain, Md. Jahangir Alam*
PID-841	Sustainable Choline-Based Ionic Liquids as Electrolytes for High-Voltage Supercapacitors: A Molecular Dynamics Study *Author: Robin Sarker, Md. Rafiqul Islam*
PID-853	Design and Analysis of Lead-Free Double Perovskite Solar Cells Based on Cs2PtI6, Cs2TiBr6, and Cs2AgBiBr6 *Author: Tawseef Salim Rafi, Jawadul Alam Shabab, Dr. Md. Sherajul Islam*
PID-880	Performance Analysis of GaAs Substrate-Based ISFET for pH Sensing Application *Author: Niloy Kundu, Sunjidah Hossain, Iffat Mahmud, Dr. Md. Faruk Hossain*
PID-995	Strain-engineered Modulation of the Electrical and Optical Properties of Ba_3PCl_3 Perovskite: A DFT-based Investigation *Author: Debjyoti Banik, K.M. Mehedi Hassan, Md. Jahirul Islam*
PID-1020	Pressure Effects on the Physical, Electronic and Optical Properties of BaAgCl3: A First-Principles Investigation *Author: Md Ebrahim Khalil, Mohammad Rasel, Akash Biswas*

Day 1: Parallel Technical Session A (D1A2) Physical - 2
December 18, 2025

Venue: ECE 219	Time: 2:00 PM – 3:30 PM

Session Title: Multi-Disciplinary 1

PID-178	Design and Analysis of a 15-Level Cascaded H Bridge Inverter Using Unipolar Sinusoidal PWM for Enhanced Harmonic Suppression *Author: Md. Shariful Islam, Md. Eakub Ali, Safia Aktar Dipa*
PID-448	Weighted Cross-Entropy Loss Based Respiratory Diseases Classification *Author: Karnis Fatema, Mohammad Ashfak Habib*
PID-541	CycleX: IoT-Integrated Smart Bicycle Sharing System for Campus Environments *Author: Md Arefin Molla, Amit Kairy, Md. Repon Islam*
PID-863	Finite Element Modeling and Analysis of Lightning Electromagnetic Effects on a Radio Broadcasting Installation *Author: Md. Kamal Hossain, Md. Faruque Hossain*

PID-911	Self-Billing Shopping Trolley With POS Software *Author: Rakibul Hassan, Md. Mutassim Fuad, Saikat Kirtania, Muaz Muhammad Tamim, Sajal Somodder Rony*
PID-961	Feasibility of East-West and South-Facing Rooftop PV Orientations for Carbon Reduction and Grid Support in Bangladesh. *Author: Taseen Rahman, Zannatul Musta, Nadman Ahmed Chowdhury*

Day 1: Parallel Technical Session A (D1A3) Physical - 3
December 18, 2025

Venue: CSE 201	Time: 02:00 PM – 3:30PM

Session Title: Sensors, Robotics, Electric Vehicle, and Power Electronics

PID-463	Primary-Side Estimation of Mutual Inductance in Wireless Power Transfer Under Misalignment of Ferrite Magnetic Couplers *Author: Md Rahman, Pritam Bol, Saidul Chowdhury*
PID-580	Voltage Stability and Power Quality Enhancement of a Grid-Connected Three-Phase Inverter Using PI Controller in dq Frame *Author: M A Mannan Akonda Emon, Md. Shahin Alam, Hasibul Hossain, Tanvir Ahmed, Nafisa Khanom, Zahid Hassan*
PID-764	Design of a Robust Sliding Mode Strategy Based on a Modified Reaching Law for High-Performance PMSM Speed Regulation *Author: Pritom Aich, Simanto Saha, Md. Mostafizur Rhaman, Ovishak Roy, Anis Ahmed (Anis Ahmed)*
PID-769	Design and Multi Objective Optimization of a Dual Stator Single Rotor Permanent Magnet Synchronous Generator for Wind Energy Conversion *Author: Fahmida Akter Jesis Shithi, Md. Arafat Rahman; Saadman Saqueeb*
PID-869	Advanced Control Strategies for SEPIC Converters: Performance Evaluation of LQG and MPC under Varying Conditions *Author: Sadikur Rahman, Ariful Islam Riad, Fahim Shaharia, Md. Faisal Rahman Badal, Md Zunaid Hossen*
PID-1190	Molybdenum Double Gated AlP Channel based JL-VTFET for Ammonia Gas Detection *Author: Pranto Mallik, Abrar Ahmed Fahim, Md. Rafiqul Islam, Md. Sajjad Hossain*

Day 1: Parallel Technical Session A (D1A4) Physical - 4
December 18, 2025

Venue: CSE 305	Time: 02:00 PM – 03:30 PM

Session Title: Wireless and Optical Communication

PID-61	Analysis of Dual Band Antenna Parameters on Jeans Substrate Under Bent Condition for Wearable Application *Author: Md. Ziadul Karim, S. M. Ashik Al Mashrafi, Dr. Ajay Krishno Sarkar*
PID-69	Physical-sensorless Framework for Wide-area Real-time Salinity Estimation based on Duplex Underwater Acoustic Wireless Communication *Author: Md Ashiqur Rahman, Masanori Hanawa*

PID-109	Orthogonal Differentially Fed Reconfigurable Penta-Polarized Planar Array Antenna Enabled by Diode-Controlled Delay Lines *Author: Debprosad Das, Md. Motahar Hossain, Mohammad Asad Rahman, Md Aminul Islam, Md. Azad Hossain*
PID-209	A Compact High Gain Dual Band Square Slotted Octagonal Patch Antenna for X, Ku and Upper 5G Bands *Author: Shah Md Toufik Ahmed, Sayed Shifat Ahmed, Md Arafath Hossain Rafi, Md. Mehedi Hassan; Md. Saffat Hossain; Sadia Tabassum*
PID-262	Autoencoder-inspired SPM-Tolerant Concentric- Ring Constellations with Rotated Decision Boundaries and Pattern-Aware LUTs for Low-DSP Coherent Links *Author: Masanori Hanawa*

Day 1: Parallel Technical Session A (D1A5) Virtual - 1
December 18, 2025

Venue: VR 1 (Zoom Platform)   **Time: 02:00 PM – 03:30 PM**
https://bdren.zoom.us/j/8187691279?pwd=XbadpwgdZ1l2ZS6flhfYuowDV422mF.1&omn=94746004998

Session Title: Wireless and Optical Communication

PID-62	Experimental Characterization of Low-Cost Fabricated H-Plane Horn Antennas for X-Band Using Two-Antenna Method *Author: Mohammad Rahman, Mehedi Hassan, Md. Kabir, Mahbuba Ferdous*
PID-65	FGT: Feature-aware Graph Transformer for Link Prediction *Author: Md Golam Morshed, Md. Murad Kabir Nipun, Md. Jahedul Islam, Md. Abul Bashar, Raton Kumar Nondi*
PID-205	Reconfigurable Dual-Ring Patch Antenna with Varactor-Diode Based Frequency Tuning *Author: Anupam Roy, Solayman Sikder*
PID-211	Security in Multicasting with SC Diversity and Opportunistic Relaying over Uncorrelated Generalized Gamma Fading Channels. *Author: Md. Milon Mahmud*
PID-213	100 Gbaud QPSK Signal Transmission Using Waveband-Shift-Free Optical Phase Conjugator *Author: Yasuhiro Okamura*
PID-269	Double-Clad Nested Hollow-Core Antiresonant Fiber for Low-Loss Terahertz Guiding *Author: Samia Fairuz, Dr. Md. Rabiul Hasan*
PID-441	A Study on a Rectangular Waveguide Using ANSYS High Frequency Structure Simulator (HFSS) *Author: Muhiminul Alvi*

Day 1: Parallel Technical Session B (D1B1) Physical - 5
December 18, 2025

Venue: ECE 203   **Time: 03:45 PM – 05:15 PM**
Session Title: Artificial Intelligence, Computer Networks and Security

PID-94	Vishing Shield: A Conceptual Framework and Detection Model to Mitigate Vishing Attacks in Mobile Financial Services (MFS) *Author: Atish Sarker, Md. Wahiduzzaman Chy, Shatubdi Roy Tithi, Sagor Roy, Md. Abir Hossain, Muhammad Shahin Uddin, Md. Anowar Kabir*
PID-273	Query-Conditioned Temporal Instrument Removal from Audio Using Deep Learning *Author: Md. Mubtashim Abrar Nihal, Ehsanul Karim*
PID-709	Sensor-based Bangla Sign Language Recognition: Comparative Analysis of Data Augmentation Methods *Author: Abdullah Al Rafi, Faria Tisha, Md. Rakibul Islam, Tasnim Binte Shawkat, Hafsa Binte Kibria*
PID-799	Recognition of Fabric Construction Types with CNNs and Transformers: Analysis of Knit, Woven, and Non-Woven Fabrics *Author: Shohag Babu, Meherun Nesa, Md. Selim, Hrithik Majumdar Shibu*
PID-888	Emotion-Aided Hate Speech Detection in Bangla Social Media Text *Author: Md. Masudur Rahman, K. M. Azharul Hasan*
PID-964	Enhancing the Efficiency of Multiclass DDoS Detection with Hybrid Feature Selection *Author: Shimul Bala, Sk. Md. Masudul Ahsan*

Day 1: Parallel Technical Session B (D1B2) Physical - 6
December 18, 2025

Venue: ECE 219	Time: 03:45 PM - 05:15 PM
Session Title: Wireless and Optical Communication	

PID-618	Hybrid Pathloss Modelling for Multi-Unit Intelligent Reflecting Surface with Frequency Dependent Reflection *Author: Pritha Basu, Shrabony Biswas, Mostafa Zaman Chowdhury*
PID-650	Design of a Tunable Hexa-Band Metamaterial Absorber With Integrated Resistors and Varactor Diodes for S-, C-, X-, and Ku-Band Applications *Author: Rahul Chowdhury, Muhammad Asad Rahman, Mohammed Saifuddin Munna, Asif Mohammed Siddiqee*
PID-675	Performance Evaluation of Phased Array Radar for Adaptive Search and Multiple Object Tracking *Author: Md. Farhan Shahriar, Dr Md Selim Hossain, Sheikh Shafaet Islam, Md Mominul Hasan Shawon*
PID-742	Design and Optimization of Hollow-Core Photonic Crystal Fiber for Multi-Alcohol Sensing Applications in the Terahertz Regime *Author: Md. Motiur Rahman Tareq, Kalyan Kumar Halder*
PID-759	VANET based Real-time Accident Prevention and Traffic Management System for Dhaka-Chattagram Highway *Author: Mohammad Sayem, Md. Nahidul Alam, Md. Zahid Hasan Buiyan, Syed Rakib Hasan*
PID-779	Enhancing Security in Rayleigh Fading Channel with Best Reconfigurable Intelligent Surface *Author: Md. Fahmid Afzal, Md. Zahurul Islam Sarkar, Abid Hasan*

Day 1: Parallel Technical Session B (D1B3) Physical - 7
December 18, 2025

Venue: CSE 201	Time: 03:45 PM - 5:15 PM

Session Title: Biomedical Engineering

PID-620	A Biomechanical Study of Hip Joint Mechanics: Effects of Modified Footwear Torsional Stiffness in Sidestep Running Cuts *Author: Md Samsul Arefin, Fong-Chin Su*
PID-645	Exploring Common Molecular Interactions across Multiple Cancer to Identify Potential Therapeutic Targets and Drug Candidates *Author: Sourav Basak Shuvo, Sraboni Hossain, Shaira Afra Redhila, Urmi Bose*
PID-809	Performance Evaluation of Ensemble Machine Learning Algorithms for Left and Right Bundle Branch Block Classification from ECG Signals *Author: Md. Ashaduzzaman Chowdhury, Torikul Islam, Md. Mohibul Islam, Nayem Zaman, Asif Abdullah*
PID-868	Phytochemical Screening of Neem Plant (Azadirachta indica) against Androgen Receptor Protein for the Treatment of Prostate Cancer through Pharmacoinformatics and Molecular Dynamics Simulation *Author: Tofayel Ahmed Emran, Asif Abdullah, Mohaimenul Islam Tareq, M.A. Rafi, Nayem Zaman, Md. Nazmul Hasan*
PID-963	Enhancing Rural Healthcare in Community Clinics using LoRa Technology *Author: Shadman Shakib Prodhan Sayor, Fairooz Rahman*

Day 1: Parallel Technical Session B (D1B4) Physical - 8
December 18, 2025

Venue: CSE 305	Time: 03:45 PM - 05:15 PM

Session Title: Optoelectronic Devices, Materials and Nanotechnology

PID-250	Comprehensive First-Principles Investigation of the Structural, Electronic, Phonon, and Optical Properties of Lead-Free Halide Double Perovskites Cs2GeX6 (X = F, Cl, Br, I) *Author: Anoy Chakraborty, Sudip Dey Dipta, Tanwi Chakraborty, Md. Rasidul Islam*
PID-468	Graphene-Based Cross-Shaped Four-Fold Symmetric Metasurface with Localized Surface Plasmon for Tunable Terahertz Absorption and Sensing Applications *Author: Farhan Labib, Nusrat Jahan Ohee, Md. Shariful Islam*
PID-658	Numerical Investigation and Performance Optimization of Bulk Heterojunction Organic Solar Cells Using Different Hole Transport Layers *Author: Kaushik Mazumder, Sakib Hossen, Md. Faruk Hossain*
PID-680	Fabrication of MoS2-Graphene Heterojunction-Based Schottky Diode for GHz Range *Author:* Sanjeev Thapa
PID-716	Highly Efficient Forward and Inverse Design of Metasurface-Based Colors Using LSTM Networks

	Author: Sakib Sadman, Abdul Khaleque, Kumary Sumi Rani Shaha, Rabiul Islam
PID-1179	High-Performance PTFE Based IDE-F-TENG: A Green Solution in Self Powered Microelectronics *Author: Md. Tarek Hosen, Ashraful Ghani Bhuiyan*

Day 1: Parallel Technical Session B (D1B5) Virtual - 2
December 18, 2025

Venue: VR 2 (Zoom Platform)	**Time: 03:45 PM – 05:15 PM**

https://bdren.zoom.us/j/8187691279?pwd=XbadpwgdZ1l2ZS6flhfYuowDV422mF.1&omn=97281423422

Session Title: Wireless and Optical Communication

PID-459	Design and Performance Analysis of a Wideband Phased Array Antenna for GNSS Applications *Author: Hafiz Asad, Dr. Md Hossam-E- Haider*
PID-484	A Deep Hybrid Learning Approach for Estimating Energy Consumption in NB-IoT Devices *Author: Kazi Md Abir Hassan, Kazi Md Abrar Yeaser*
PID-602	Design of a Highly Impedance-Matched Patch Antenna with Superstrate cover for the Wi-Fi 6 Applications *Author: Md Mizanur Rahman, Md. Shah Alam*
PID-686	Performance Analysis of Dielectric Material of a Coaxial Cable using Ansys HFSS *Author: Md. Ahoshan- Rafi*
PID-692	Secrecy Capacity of Power Beacon Assisted Short Packet Wireless Networks in the Presence of Multiple Eavesdroppers *Author: Abdullah Noman, Dr. Md. Zahurul Islam Sarkar, Abid Hasan*
PID-839	Deep Learning PAPR Reduction Framework For 5G NR Uplink OFDM *Author: Francesco De Florence, Abu Saleh Molla, M. Khairul Islam, M. Humayun Kabir*
PID-887	Material Property-Based Efficiency Optimization of Perovskite Solar Cells via Machine Learning *Author: Ihtesham Ibn Malek, Borhan Ahmad*

Day 2: Parallel Technical Session A (D2A1) Physical - 9
December 19, 2025

Venue: ECE 203	**Time: 09:00 AM – 10:30 AM**

Session Title: Wireless and Optical Communication

PID-60	Performance Enhancement of QPSK Modulated FSO System Employing Deep Residual Convolution Neural Network *Author: Al Imran, Md. Shahriar Kabir, Mostafa Zaman Chowdhury*

PID-514	Repurposed PET Bottle Acoustic Collimator for Multipath Mitigation of Underwater Acoustic Wireless Communication in Shallow Water Environments *Author: Masanori Hanawa, MD Ashiqur Rahman*
PID-538	A Diode-Shaped mmWave Patch Antenna with Defected Ground for Dual-Band High Frequency Applications *Author: Anik Paul, Farhin Sultana, Md. Azad Hossain*
PID-594	QoS-Aware Beamforming for RIS-Enhanced mmWave Systems: A QoS-Constrained Sum-Rate Maximization Approach *Author: Monzur Morshed, Mostafa Zaman Chowdhury*

Day 2: Parallel Technical Session A (D2A2) Physical - 10
December 19, 2025

Venue: ECE 219	Time: 09:00 AM - 10:30 AM

Session Title: Optoelectronic Devices, Materials and Nanotechnology

PID-1035	Effects of Strain Engineering on the Structural, Electronic, and Mechanical Properties of KPbBr3 : A DFT Study *Author: Md. Ashiqur Rahman, Akash Biswas, Sazzad Ibn Mohsin*
PID-1036	Strain Effects on the Structural, Mechanical, and Electronic Properties of CsSnCl3: A DFT Analysis *Author: Sazzad Ibn Mohsin, Akash Biswas, Md. Ashiqur Rahman*
PID- 1043	Label-Free, Ultra-Sensitive SPR Refractive Index Sensor Using Si3N4/Ag/BP Heterostructure *Author: Arnab Saha,Biswajit Dey, Md. Tawabur Rahman*
PID-1114	Catalytic Gate-Engineered Double-Gate Junction-less Vertical TFET for Sensing Hydrogen Gas: A Comparative Study *Author: Darpon Chakma, Md. Sajjad Hossain, Abdullah Al Soykot,Md. Nur Kutubul Alam*
PID- 1119	A DFT Study of Boron-Doped MoS2 for Enhanced CO Gas Sensing *Author: Mehrin Morshed, Ashraful Ghani Bhuiyan*

Day 2: Parallel Technical Session A (D2A3) Virtual - 3
December 19, 2025

Venue: VR 3 (Zoom Platform)	Time: 09:00 AM – 10:30 AM
https://bdren.zoom.us/j/8187691279?pwd=XbadpwgdZ1l2ZS6flhfYuowDV422mF.1&omn=96894529270	

Session Title: Signal Processing, Multimedia, and Embedded Systems

PID-75	SoilSense: An IoT-Based Soil Health Monitoring System for Smallholder Farmers in Bangladesh to Support Sustainable Agriculture *Author: Saumyadip Das, Nur-E Sarjina Khan, Md. Ahasan Habib Alif, Raiyan Bin Alam; Mahima Afroz, Niloy Paul, Md. Sajid Hossain*
PID-177	Design and Implementation of a Low-Cost Impact Testing System for PVC Pipes Compliant with International Standards *Author: Sandip Sarker; Arpon Bose, Sumaya Tabassum, Khalid Hasan*
PID-180	Automated Multi-Class Fault Diagnosis of Photovoltaic Panels Using Lightweight Convolutional Neural Networks

	Author: MD. Tanvirul Haque
PID-366	EEG-Based Hybrid Deep Learning Framework for Binary and Multi-Level Mental Stress Classification *Author: Md. Zahid Hasan; Purba Biswas; Md. Fazlul Karim Khondakar, Trishita Ghosh Troyee; Mehdi Hasan Chowdhury*
PID-442	High-Performance Dual-Band Metamaterial Absorber for EMI Shielding in Millimeter-Wave 5G Communication *Author: Md. Murad Nipun, Md. Jahedul Islam*
PID-444	Simulation Framework for Image Processing Operations Using MATLAB and Verilog *Author: Bala Sindhuri Kandula, Subha Telkar, Koteswari S, Krishna Chaitanya Pidugu, Aravind Kumar M, Siddanthapu Jyothi*

Day 2: Parallel Technical Session A (D2A4) Virtual - 4
December 19, 2025

Venue: VR 4 (Zoom Platform)   **Time: 09:00 AM – 10:30 AM**
https://bdren.zoom.us/j/93815629249?pwd=uYGSWcMmdPWVtKBlA8SvBvKaGNLXV4.1

Session Title: Sensors, Robotics, Electric Vehicle, and Power Electronics

PID-286	A Novel Auxiliary-Assisted Reduced Component Switched-Capacitor Seven Level Inverter for Standalone Applications *Author: Md. Ahsanul Alam, Md. Tariqul Islam, Md. Fayzur Rahman*
PID-458	Design and Image Analysis of an APS-Derived CMOS Neuromorphic Model Mimicking Retinal Rod and Cone Pathways *Author: Abdey Munaf, Md Turiqul Islam, Alaaddin Al-Shidaifat, Zeki KUS, Musa AYDIN, Sung Kwon Kim, Hanjung Song*
PID-513	Edge-Optimized Firefighting Robot: Autonomous Navigation via PID Control and Fire Detection with FOMO Vision *Author: Kazi Abrar Mahmud, Fahim Ahmed, Rayhan Siddiq, Shadman Sobhan*
PID-688	Temperature-Based Current Estimation for Water-Cooled Chillers *Author: Md Golam Sadeque, Md.Anisur Rahman, Diponkar Kundu, Md. Galib Hasan, A.H.M. Iftekharul Ferdous, Md Tanjil Sarkar*
PID-909	Design of a Negative Refractive Index THz Metamaterial Biosensor For Cancer Cell Detection *Author: Md. Abdul Kader Nayon, Md. Raisul Islam Rifat, Nipa Dhar*
PID-919	Numerical Investigation of ZrN-ITO Coated Photonic Crystal Fiber Based Plasmonic Refractive Index Sensor *Author: Fardous Mahmud, Samiul Hasan, Hemal Sharma, Shahriar Haque Kanon, Emranul Haque, Feroz Ahmed*

Day 2: Parallel Technical Session A (D2A5) Virtual - 5
December 19, 2025

Venue: VR 5 (Zoom Platform)   **Time: 09:00 AM – 10:30 AM**
https://bdren.zoom.us/j/7580461587?pwd=fbBoxe6F09HlDYcWJkuOE1tnuOaZFa.1&omn=94129714300

Session Title: Power System and Renewable Energy	
PID-115	Comparative Cost Analysis of Frequency Support Technologies under Rising PV Penetration *Author: Md. Hasib Ur Rashid, Tasnimun Razin, Shahadot Hossain, Nowshin Lubaba, Abdul Jabber Antor, Asikur Rahman Jowel, Md. Fatin Ishraq Faruqui*
PID-152	Cost and CO_2 Emissions Co-optimization for Hourly Green Hydrogen Production *Author: Halima Sadia, Tasmia Tanha, Dr. Yasir Arafat*
PID-161	Hybrid PTC–Wind System for Green Hydrogen Production Using Cu-Cl Thermochemical Cycle and Alkaline Electrolyzer *Author: Israt Jahan Munn, Yasir Arafat*
PID-436	Feasibility analysis of off-grid Solar-Wind Hybrid Renewable Energy Systems in a Coastal Area of Bangladesh *Author: Muhammad Jobayed Ibna Bashar, Salman Rashid, Md. Anawar Ibrahim, Shihab -Al-Rashid, Md. Zahid Hasan, A.B.M. Noushad Bhuiyan*
PID-455	Estimate of Economical Benefits for 450 kW On grid Agrivoltaics System A Case Study Jessore Bangladesh *Author: Md Mehedi Hasan, Md Ahsanul Alam, Ms Meherun Nesa, Ahamed Shazid*
PID-501	Techno-Economic analysis of Solar and Biogas-based Hybrid Mini Grid Power System of rural area in Barishal *Author: Abdullah Al Mamun, Md. Ragib Mahatab, A. B. M. Noushad Bhuiyan, Md. Mustafizur Rahman, Md. Yeasin*

Day 2: Parallel Technical Session B (D2B1) Physical - 11
December 19, 2025

Venue: ECE 203	Time: 02:30 PM – 04:00 PM
Session Title: Multi-Disciplinary 2	
PID-89	Design and Performance Analysis of a Common Source Cascode LNA using 90nm Technology *Author: Konica Akter, MD Rumman Al Shahriar, Afiqur Rahman Chowdhury Afik, Adnan Sami Sarker, Anik Chowdhury*
PID-257	Prediction and Analyses of Women's Malnutrition with Real-Time Data and Explainable Machine Learning Techniques *Author: Susmita Sejuti Saha, Dola Das, Sanjida Akter Mou*
PID-935	Building a Bangla Corpus for Enabling Reliable Benchmarking in Tense Error Detection *Author: Pavel Ferdous, K. M. Azharul Hasan*
PID-1101	Device Simulation and Optimization of Non-toxic Highly Efficient CsSnI3-based Perovskite Solar Cell *Author: Joyanto Biswas*
PID-1178	Pressure modulated bandgap reduction of InSnX3 (X= Cl, Br, I) for optoelectronic applications *Author: Md. Abdullah Al-Rifat*

Day 2: Parallel Technical Session B (D2B2) Physical - 12
December 19, 2025

Venue: ECE 219	Time: 02:30 PM – 04:00 PM

Session Title: Biomedical Engineering

PID-181	Machine Learning and Bioinformatics-Driven Discovery of Biomarkers and Therapeutics for Melanoma and Non-Melanoma Skin Cancers *Author: Somaya Jannat, Sagor Roy, Swapnil Saha, Nusrat Jahan Bindu, Md. Abul Basar, Md. Anowar Kabir*
PID-224	Unveiling Common Biomarkers and Therapeutic Targets in T2DM, AMI, and Alzheimer's Disease Using XAI and Bioinformatics Approaches *Author: Swapnil Saha, Md. Lutfor Rahaman, Sagor Roy, Somaya Jannat, Md. Abul Basar, Md. Anowar Kabir*
PID-253	Discovery of Biomarkers and Drug Targets in different Kidney Diseases by Explainable AI and Functional Genomics *Author: Nusrat Jahan Bindu, Md. Lutfor Rahaman, Jebin Akter Tithi, Muhammad Shahin Uddin, Md. Abul Basar, Md. Anowar Kabir*
PID-293	Deep-SchizoNet: A Lightweight Region-Wise Approach to Detect Schizophrenia Using 1D CNN BiLSTM Hybrid Model *Author: Madan Mohan Saha Momit, Nafis-Ul Momin, Hridoy Kundu*
PID-299	Noninvasive Glucose Monitoring Device for Diabetes Mellitus Detection *Author: Md. Altab Hossain, Sheikh Md. Rabiul Islam*
PID-482	EEG Channel Reduction via Autoencoder for Deep Learning-based Seizure Forecasting *Author: Rayhan Rabbi, Muhammad Mojumdar, Ainul Khan*

Day 2: Parallel Technical Session B (D2B3) Physical - 13
December 19, 2025

Venue: CSE 201	Time: 02:30 PM – 04:00 PM

Session Title: Wireless and Optical Communication

PID-840	Soliton-Enhanced Highly Sensitive Multi-Gas Detection using Hollow-Core Photonic Crystal Fiber *Author: Taimur Rahman Dip, Md. Jahirul Islam, Sunanda Das*
PID-936	Janus SnSTe Monolayer for High-Performance Detection of Hazardous Gases: A DFT Study *Author: Md. Solayman Islam, Raiyan Al Nahean, and Md. Rafiqul Islam*
PID-971	Velocity Aware Predictive Geometry Based Handover Management in LEO Satellite NTNs *Author: Lamia Enam, Mostafa Zaman Chowdhury*
PID-984	Shared Bandwidth Allocation Algorithm for SDN-based Multi-Tenancy and Multi-OLT Hybrid EPON *Author: Khandaker Al Arafat, Monir Hossen*
PID-1019	Transformer-Based Deep Learning Architecture to Enhance Performance of CSS in CRN *Author: Laila Arjumand Zannat, Nawaz Talukder Sanglap, Sk. Shariful Alam*

Day 2: Parallel Technical Session B (D2B4) Virtual - 6
December 19, 2025

Venue: VR 6 (Zoom Platform)   **Time: 02:30 PM – 04:00 PM**
https://bdren.zoom.us/j/8187691279?pwd=XbadpwgdZ1l2ZS6flhfYuowDV422mF.1&omn=98975649981

Session Title: Signal Processing, Multimedia, and Embedded Systems

PID	Title / Author
PID-464	Grad-CAM in Rice Leaf Disease Detection Using an Improved CNN Model: Transitioning from Black Box to Explainable AI *Author: Shahariar Sarkar*
PID-469	Deep Learning Approaches for Mango Leaf Disease Classification: A Comparative Study Featuring MLDNet *Author: Shadhin Ahmed; Somaia Sarmin Shouma, Sadiqul Haque Sadib, Md. Rubel Miah, Md. Ariful Islam, Ragib Raiyan*
PID-551	Performance Evaluation of Approximate Computing Architectures for Image Multiplication *Author: Gottupalli Manasa*
PID-710	Portable Network-Connected Monitoring Device for EV Induction Motors Using ESP32 and Raspberry Pi with Multi-Sensor Data *Author: Rifat Ahmed, Julfiker Ibn Haider, Mehedi Hasan, Anik Kumar Debnath, Wakil Ahmed, Shihab Uddin*
PID-754	Bi-Entropy Curve Equalization for Enhancement of Images *Author: Hafijur Rahman*
PID-952	DSCBAM-Net: A Lightweight Neural Network with Grouped Depthwise-Separable CBAM for Automated Brain Tumor Classification *Author: Abdullah Shafi, Sumaiya Rahim, Sk. Md. Masudul Ahsan*

Day 2: Parallel Technical Session B (D2B5) Virtual - 7
December 19, 2025

Venue: VR 7 (Zoom Platform)   **Time: 2:30 PM – 4:00 PM**
https://bdren.zoom.us/j/91837065771?pwd=jyRaeVda7aB7GcxDU1HgmtuacvFj9H.1

Session Title: Artificial Intelligence, Computer Networks and Security

PID	Title / Author
PID-25	MSRA-Net: An Efficient Deep Learning Architecture with Spatial Attention for Diabetic Retinopathy Classification from Retinal Images *Author: Meherose Hossain Tasnia, Mrithika Dutta, Fahim Sahriar, Farhana Rahman, Adiba Masud, Kazi Rifat Ahmed*
PID-54	Enhanced Skin Disease Classification: Evaluating Deep Learning Models on a Customized Dataset and a Hybrid Model Approach *Author: Md Rezaul Karim Reza, Shoaib Rufsun, Md. Shahinur Rahman Chowdhury, Mehjabeen Nokshi, Marzuka Ahmed Jumana*
PID-258	IMulti-Level Ensemble Learning for Fine-Grained Classification of Traditional Bangladeshi Dress Using Deep Transfer Models *Author: Md. Musfiqur Rahman, Sudipa Biswas, S.N.M. Rayhan, Md Shohan Mia, Md Mahbubur Rahman Tusher*
PID-633	Lightweight Visual Question Answering (VQA) Model for Skin Disease Detection

	Author: Abtahi Noor, Ridwan Noor Tasin, Raiyan Habib Mahe, Md Fahim Ul Islam, Azwad Aziz, Rafeed Rahman, Amitabha Chakrabarty
PID-747	Electricity Demand Forecasting of Bangladesh Based on Darts Temporal Fusion Transformer (DTFT) *Author: Nripendro Biswas, Iftekhar Hossain, Mohammed Faysal Jaman, Md.Mehedi Hassan, Munaem Ahmed Mahdi*
PID-829	DUETR-ViT: A Novel Dual-Scale Patch Embedding UNETR with Vision Transformers for 3D Medical Image Segmentation *Author: Saimum Islam Jeem, Tarsheed Zaman Radif, Zia Md Galib Ul Alim*
PID-1055	ConCF: A Hybrid Deep Learning Model for Semantic-Aware Collaborative Filtering in Recommender Systems *Author: Alamgir Hossain; Aslam Sikder; Panayiotis Andreou*

Day 2: Parallel Technical Session C (D2C1) Virtual - 8
December 19, 2025

Venue: VR 8 (Zoom Platform)   **Time: 4:15 PM - 5:30 PM**
https://bdren.zoom.us/j/8187691279?pwd=XbadpwgdZ1l2ZS6flhfYuowDV422mF.1&omn=91753848176

Session Title: Power System and Renewable Energy

PID-420	Multi-core Fiber Featuring Air-hole-assisted Trench for Efficient OAM Mode Transmission *Author: Rosni Sayed, Abdul Khaleque, Kumary Sumi Rani Shaha*
PID-515	Optimized Soft-Switching DC-DC Converter with Intelligent MPPT for Solar Power Systems *Author: Prince Ghosh*
PID-570	IOT-Integrated Biogas-fueled Power Generation, Gas Filtration and Monitoring System *Author: Taseen Rahman, MD. Mushfiqur Rahman, Nadman Ahmed Chowdhury, Md Absar Siddiqui*
PID-621	Study of a Solar-Powered Hybrid Microgrid for Tea Estates in Bangladesh: A Homer Pro Simulation *Author: Md. Khalid Mahmud, Eazaz Ahamad, Mohammad Rejwan Uddin, Khosru Mohammad Salim*
PID-823	Smart Farm: Integrating Solar Energy, Automated Irrigation and Livestock Feed System *Author: S M Mahadi Hasan, Anzum Mohammad Jauad, Abu Saleh Nasrullah, Simanta Datta Ronobir, Shahriar Tamim, Rabeya Akter*

Day 2: Parallel Technical Session C (D2C2) Virtual - 9
December 19, 2025

Venue: VR 9 (Zoom Platform)   **Time: 4:15 PM - 5:30 PM**
https://bdren.zoom.us/j/92376504792?pwd=3SF9QsoA3ohgbqvhdF4bcUTMv0qjym.1

Session Tile: Multi-Disciplinary 3

PID-958	Material and Geometry Optimization of a SAW Gas Sensor for Precise Low-Concentration CO_2 Detection Under Varying Environmental Conditions *Author: Anik Chowdhury, Abrar Adib, Aditta Chowdhury, Md. Istiaque Reja*
PID-986	Stabilizing Load Power in Two-Transmitter Inductive Power Transfer Systems with Asynchronous Power Sources *Author: Quang-Thang Duong, Quoc-Trinh Vo, Van-Dien Nguyen, Vy-Rin Nguyen*
PID-1000	Texture Enhanced 3D UNet with Deep Shortcut for Brain Tumor Segmentation *Author: Md Mahir Abrar Khan, Sk. Md. Masudul Ahsan*
PID-1017	Automatic Image Captioning in Bengali using Transformer Architecture *Author: Sheikh Nibir; Sk. Md. Masudul Ahsan*
PID-1025	Efficient 3D Point Cloud Generation using Feature Fusion and Point Cloud Decoding *Author: Sumiya Islam Barsha, Sk. Md. Masudul Ahsan*

Day 2: Parallel Technical Session C (D2C3) Virtual - 10
December 19, 2025

Venue: VR 10 (Zoom Platform)   **Time: 4:15 PM - 5:30 PM**

https://bdren.zoom.us/j/7580461587?pwd=fbBoxe6F09HlDYcWJkuOE1tnuOaZFa.1&omn=935082 63780

Session Title: Multi-Disciplinary 4

PID-457	Design of a Polarization-Insensitive Triple-Band High-Q Microwave Metamaterial Absorber *Author: Asif Siddiqee, Muhammad Asad Rahman, Rahul Chowdhury, Somen Dutta*
PID-490	A Novel Approach for Dynamic Spectrum Sharing Between LTE and NR in Heterogeneous Networks *Author: Rony Saha*
PID-525	Bengali Shallow Parsing with XLM-RoBERTa: A Rule-Guided Multitask Approach *Author: Radha Paul, Julia Rahman*
PID-822	Cattle Infectious Disease Prediction Using Machine Learning Model and Explainable AI *Author: Mahfuzulhoq Chowdhury, Nasrul Karib, Debarati Dhar*
PID-871	Bangla Syntax Annotation: A Data-Driven Approach to Bangla Dependency Parsing with a Treebank *Author: Shaikh Prothomaa Minhaz, KM Azharul Hasan*
PID-1117	Learning-Augmented RIS-Aided Hybrid Beamforming for Secure and Low-Latency Transmission *Author: Maksudur Rahman Maksud, Dibakar Roy, Md.Monuwar Hussen, Moloy Kumar Ghosh, Md. Faysal Ahamed*

Day 2: Parallel Technical Session C (D2C4) Virtual - 11
December 19, 2025

Venue: VR 11 (Zoom Platform)	Time: 4:15 PM - 5:30 PM
https://bdren.zoom.us/j/8937515784?pwd=LXQRVdj4aMmAzOnifsysmAoaabNa5O.1&omn=96503837805	

Session Title: Multi-Disciplinary 5	
PID-281	Molybdenum Diselenide Functionalized SPR Biosensor for Ultra Sensitivite Carcinoembryonic Antigen Detection *Author: Md. Al Amin Islam Utshob, Maymona Binte Juwel; Khandakar Mohammad Ishtiak*
PID-532	Novel monolayer SrAlGaSe2Te2: A 2D Material with Promising Electronic, Optical, and Piezoelectric Properties *Author: Swmic Majumder, Auditee Majumder Momo, Md. Kawsar Ala*m
PID-578	Voltage-Controlled Bandgap Engineering in Zigzag WSe2 Nanoribbons: A First-Principles Study *Author: Toahera Abdullah; Mahbub Alam*
PID-727	Comparison of Machine Learning Models for Accurate Prediction of Power Conversion Efficiency in Perovskite Solar Cell *Author: Munaem Ahmed Mahdi; Nripendro Biswas; Mohona Das Gupta*
PID-1177	Prototypical Networks for Few-Shot Intrusion Detection in the Internet of Medical Things *Author: MD. Sakibul Islam; F.M. Jahid Uzzaman, Tanvir Ahmed Siddiqui, Md Mahbub Murshid, Ashraf Sharif Mahmoud, Sadia Salma*

Day 2: Parallel Technical Session C (D2C5) Virtual - 12
December 19, 2025

Venue: VR 12 (Zoom Platform)	Time: 04:15 PM – 05:30 PM
https://bdren.zoom.us/j/7343838562?pwd=6EPdm56o4r3S10Q4FLl3jE35y5FLYs.1&omn=96624962147	

Session Title: Multi-Disciplinary 6	
PID-369	Assessment of the Features of Radiofrequency Radiation Absorption by Lung Tissue and an Improved Method Using Graphene *Author: Nawshad Ahmed, Ajay Krishno Sarkar, Nawaj Sharif, Sk Niyaz Romiz*
PID-430	A Deep Learning-Aided Framework for Severity-Based Classification of Diabetic Retinopathy in Smartphone-Based Fundus Imaging *Author: Shahneela Shailee*
PID-789	Feature-Driven PCG Signal Analysis for Valvular Heart Disease Detection *Author: Sharfuddin Al Pasha Chowdhury, Arifa Tanzim, Pritam Banik*
PID-944	Data-Driven SOC Estimation with Uncertainty Quantification for EV Batteries *Author: Rifat Islam Rony, Mursalin Biswas Emon, Mehedi Hassan*
PID-992	Enhancing Ergodic Secrecy Capacity of $\kappa-\mu$ Shadowed Fading Channels with Reconfigurable Intelligent Surface *Author: Abid Hasan, Md. Zahurul Islam Sarkar*
PID-1103	Integration of Piezoelectric Sensors with Energy Storage for Sustainable Power Generation and Power Delivery *Author: Taseen Rahman, Zannatul Musta, Nadman Ahmed Chowdhury*