

ICEEICT 2024 Programs

ICEEICT 2024 Programs

Day – 1: 02 May 2024 Thursday

Time (Hrs)	Program						Venue
0700 – 0820	Conference Kit Collection						Parking Area, Tower-3
0830 – 0840	Arrival of Guests						MIST Auditorium
0840 – 0900	ICEEICT Highlights						
0900 – 0940	Inaugural Ceremony						
0940 – 1000	Tea Break						VIP Tea Bar, Tower – 3 Central Tea Room, L – 2, Tower – 1
1005 – 1030	Industrial Digital Display						MIST Hall of Fame
1100 – 1140	Keynote – 1 Prof Dr Saifur Rahman Virginia Tech, USA						KN-1: MIST Auditorium
1145 – 1225	Keynote – 2 Prof Dr Jih – Sheng (Jason) Lai Virginia Tech, USA			Keynote – 3 Prof Dr Rajkumar Buyya University of Melbourne, Australia			KN-2: MIST Auditorium KN-3: Int. Computing Lab, L-3, Tower – 3 (Online)
1230 – 1310	Keynote – 4 Prof Dr Mohamed Nurullah Kingston University, London, UK						KN-4: MIST Auditorium
1310 – 1410	Prayer and Lunch						Central Masjid, MIST & Central Tea Room L – 2, Tower – 1
1415 – 1615	Technical Session: Poster – I			IEEE SB Co-located Event-I 3 Minute Thesis Competition			Cafeteria, L – 1, Tower – 4
1620– 1640	Tea & Snacks						Central Tea Room L – 2, Tower – 1
1645 – 1815	Technical Session: Oral – 11A	Technical Session: Oral – 11B	Technical Session: Oral – 11C	Technical Session: Oral – 11D	Technical Session: Oral – 11E	Technical Session: Oral – 11F	Tower 3 A: R-701 D: R-801 B: R-703 E: R-802 C: R-704 F: R-803
1815	End of Day 01 Events						

Day – 2: 03 May 2024 Friday

Time (Hrs)	Program						Venue
0800 – 0840	Keynote – 5 Prof Dr Ming C Lin University of Maryland, USA		Keynote – 6 Prof Dr José del R Millán University of Texas at Austin, USA		Keynote – 7 Prof Dr Frede Blaabjerg Aalborg University, Denmark		Zoom ID: TBA KN-5: R-801, Tower – 3 KN-6: R-802, Tower – 3 KN-7: R-803, Tower – 3
0845 – 1015	Technical Session: Oral – 21A	Technical Session: Oral – 21B	Technical Session: Oral – 21C	Technical Session: Oral – 21D	Technical Session: Oral – 21E	Technical Session: Oral – 21F	Tower 3 A: R-701 D: R-801 B: R-703 E: R-802 C: R-704 F: R-803
1015 – 1030	Tea Break						Central Tea Room L – 2, Tower – 1
1030 – 1110	Keynote – 8 Prof Dr B M Azizur Rahman City, University of London, UK			Keynote – 9 Prof Dr Muhammad Ali Imran University of Glasgow, UK			KN-8: MPH, L – 10, Tower – 1 KN-9: Int. Computing Lab, L-3, Tower – 3 (Online)
1115 – 1245	Technical Session: Poster – II			IEEE SB Co-located Event-II Innovation Contest for Smart Bangladesh			Cafeteria, L – 1, Tower – 4
1245 – 1425	Prayer and Lunch Break						Central Tea Room, L – 2, Tower – 1
1430– 1510	WIE Session Prof Dr Celia Shahnaz 2023-2024 IEEE WIE Committee Chair						R-902, Tower – 3
1515 – 1645	Technical Session: Oral – 22A	Technical Session: Oral – 22B	Technical Session: Oral – 22C	Technical Session: Oral – 22D	Technical Session: Oral – 22E	Technical Session: Oral – 22F	Tower 3 A: R-701 D: R-801 B: R-703 E: R-802 C: R-704 F: R-803
1645 – 1715	Tea & Snacks						Central Tea Room, L – 2, Tower – 1
1715 – 1830	Technical Session: Oral – 23A	Technical Session: Oral – 23B	Technical Session: Oral – 23C	Technical Session: Oral – 23D	Technical Session: Oral – 23E	Technical Session: Oral – 23F	Tower 3 A: R-701 D: R-801 B: R-703 E: R-802 C: R-704 F: R-803
1830	End of Day 02 Events						

Day – 3: 04 May 2024 Saturday

Time (Hrs)	Program			Venue
0900 – 1040	A: Technical Session: Poster – III	B: Workshop on Cloud Computing	C: Industry Academia Session Panel Discussion	A: Cafeteria, L – 1 Tower – 4 B: Int. Computing Lab, L-3, Tower – 3 C: MPH, L – 10, Tower – 1
1040 – 1100	Tea Break			Central Tea Room, L – 2, Tower – 1
1100 – 1310	Best Paper Competition			A: R-902, Tower – 3 B: R-903, Tower – 3
	A: Top-3 Best and Top-10 Student Paper Presentation	B: Top-3 Poster Presentation		
1310 – 1400	Prayer and Lunch Break			Central Tea Room, L – 2, Tower – 1
1930 – 2245	Closing Ceremony & Gala Dinner			MIST Auditorium VIP Tea Bar, Tower – 4 Cafeteria, L – 1, Tower – 4

Technical Program

Day-1: 02 May 2024 (Thursday)

Keynote – 1 Day-1, Thursday, 02 May 2024 Time: 1100 - 1140	
Venue: MIST Auditorium Session Chair: Dr Nawshad Amin, EEE, AIUB	
Keynote Speaker	Keynote Topic
Prof Dr Saifur Rahman Virginia Tech, USA	Role of ICT in Optimal Management of Smart Buildings, Smart Cities, and Smart Grids

Keynote – 2 Day-1, Thursday, 02 May 2024 Time: 1145 - 1225	
Venue: MIST Auditorium Session Chair: Dr Abdul Hasib Chowdhury, EEE, BUET	
Keynote Speaker	Keynote Topic
Prof Dr Jih – Sheng (Jason) Lai Virginia Tech, USA	Electrification with High-Efficiency Power Conversion Technologies for Net Zero Emission

Keynote – 3 Day-1, Thursday, 02 May 2024 Time: 1145 - 1225	
Venue: Int. Computing Lab, L-3, Tower – 3 Zoom ID: 222 944 0185 Session Chair: Dr Md Aminul Islam, EECE, MIST	
Keynote Speaker	Keynote Topic
Prof Dr Rajkumar Buyya University of Melbourne, Australia	Neoteric Frontiers in Cloud, Edge, and Quantum Computing

Keynote – 4 Day-1, Thursday, 02 May 2024 Time: 1230 – 1310	
Venue: MIST Auditorium Session Chair: Dr Maruf Hasan, BME, MIST	
Keynote Speaker	Keynote Topic
Prof Dr Mohamed Nurullah Kingston University, London, UK	The Impact of Artificial Intelligence (AI) on Economy and Society

Technical Session: Poster – I

Day-1, Thursday, 02 May 2024

Time: 1415-1615

Venue: Cafeteria, L – 1, Tower – 4

Session Chairs:

1. Dr. Md Nazrul Islam Mondal, CSE, RUET
2. Dr Md Rubaiyat Hossain Mondal, ICT, BUET
3. Dr Mohammad Abdur Rouf, CSE, DUET
4. Dr Fazlul Hasan Siddiqui, CSE, DUET
5. Dr Abu Layek, CSE, JnU
6. Dr Sawkat Ali, CSE, EWU
7. Dr Md Asadur Rahman, BME, MIST

SL	PID	SL	PID	SL	PID	SL	PID
1	7	11	123	21	327	31	635
2	23	12	127	22	329	32	190
3	83	13	129	23	390	33	322
4	93	14	150	24	422	34	558
5	96	15	170	25	440		
6	107	16	171	26	474		
7	111	17	231	27	586		
8	117	18	256	28	588		
9	118	19	259	29	593		
10	122	20	326	30	597		

IEEE SB Co-located Event – I

Day-1, Thursday, 02 May 2024

Time: 1415-1615

Session Title: 3 Minute Thesis Competition

Venue: Cafeteria, L – 1, Tower – 4

Session Chairs:

1. Dr Md Zunaid Baten, EEE, BUET
2. Dr Nafees Mansoor, EEE, ULAB

Technical Session - 11A

Day-1, Thursday, 02 May 2024

Time: 1645 – 1815

Session Title: Artificial Intelligence-1

Venue: R-701, Tower – 3

Session Chair: Dr Salekul Islam, CSE, UIU

Dr Muhammad Nazrul Islam, CSE, MIST

SL	PID	Title of the paper
1	21	Transforming Precision: A Comparative Analysis of Vision Transformers, CNNs, and Traditional ML for Knee Osteoarthritis Severity Diagnosis
2	24	DeepRegYLab: A Dilated Convolution and Network Design Space Based Image Segmentation Model to Segment Healthy GI Tract of Cancer Patients to Automate Radiotherapy

3	26	A Cutting-Edge Ensemble of Vision Transformer and ResNet101v2 Based Transfer Learning for the Precise Classification of Leukemia Sub-types from Peripheral Blood Smear Images
4	82	An Enhanced Feature-Based Hybrid Approach for Adversarial PDF Malware Detection
5	358	Advanced Natural Language Processing Techniques for Efficient Sentiment Analysis of US Airline Twitter Data: A High-Performance Framework for Extracting Insights from Tweets

Technical Session - 11B		
Day-1, Thursday, 02 May 2024		
Time: 1645 – 1815		
Session Title: Artificial Intelligence-2		
Venue: R-703, Tower – 3		
Session Chair: Dr Obaidur Rahman, CSE, DUET Dr Mohammad Ariful Haque, EEE, BUET		
SL	PID	Title of the paper
1	147	Enhancing CNN Model by Incorporating Upscaling and Downscaling Techniques for Image Classification
2	148	A Study of Contrastive Learning Methods for Bengali Social Analysis
3	152	Predicting Depressive Behavior with Monitoring Activity Data Using Machine Learning and Feature Selection Approaches
4	161	Advancing Ophthalmology through Transfer Learning and Channel-wise Attention for Retinal Disease Classification
5	194	Bangla Sign Language Classification with Deep Learning
6	199	Towards Developing an Automatic Punctuation Prediction Model for Bangla Language: A Pre-Trained Mono-Lingual Transformer-Based Approach

Technical Session- 11C		
Day-1, Thursday, 02 May 2024		
Time: 1645 – 1815		
Session Title: Artificial Intelligence-3		
Venue: R-704, Tower – 3		
Session Chair: Dr S M Mahbubur Rahman, EEE, BUET Dr Shahriar Rahman, CSE, UIU		
SL	PID	Title of the paper
1	221	BengaliHateCB: A Hybrid Deep Learning model to Identify Bengali Hate Speech Detection from Online Platform
2	243	Disha: A Bilingual Humanoid Virtual Assistant
3	250	A Multi-cancer Detection and Localization System Utilizing X-AI and Ensemble Technique using CNN
4	251	Pruning-Based Ensemble Tree for Multi-Class Classification
5	252	DDoS-Net: Classifying DDoS Attacks in Wireless Sensor Networks with Hybrid Deep Learning
6	319	Enhancing the Ability to Recognise Facial Expressions in Young Children: A method using Few-Shot Learning and Cross-Dataset Validation

Technical Session- 11D

Day-1, Thursday, 02 May 2024

Time: 1645 – 1815

Session Title: Semiconductor Devices and Circuits - 1

Venue: R-801, Tower – 3

Session Chair: Dr Ashraful Ghani Bhuiyan, EEE, KUET

Dr Mohammad Nasir Uddin, EEE, AIUB

SL	PID	Title of the paper
1	80	First-Principle Study on Structural and Crystal Orientation-dependent Electronic Properties of Cs ₂ InAg (Cl _{1-x} Br _x) ₆ Mixed Halide
2	87	Design and Analysis of a Novel Triangular Nano-plasmonic Coupler with an Enhanced Coupling Efficiency
3	138	Trefoil Shaped Hollow Core SPR Voltage Sensor Infiltrated with Liquid Crystal
4	160	Gas Detection Utilizing Soliton Effect Pulse Compression in a Hollow Core Photonic Crystal Fiber
5	216	A 2.319 uW, 37.34 MHz Transmission Gate Based 4-Bit ALU for Contemporary Low-Powered, High Speed Microprocessors
6	276	A Comprehensive Investigation of GaSb/GaAs _{0.5} Sb _{0.5} /GaAs based Double Gate Source-Pocket Engineered Heterogeneous Gate Dielectric Vertical TFET for Optimized Low-Power Applications
7	399	Elevating Efficiency in Silicon Thin-Film Solar Cells: Exploring the Influence of Monomer and Dimer Plasmonic Nanoparticles

Technical Session - 11E

Day-1, Thursday, 02 May 2024

Time: 1645 – 1815

Session Title: Computer Network and Security

Venue: R-802, Tower – 3

Session Chair: Dr Md Saiful Islam, IICT, BUET

Dr Saiful Azad, CSE, Green University

SL	PID	Title of the paper
1	257	A Blockchain and Machine Learning-Based Integrated Framework for Dynamic Customs Security Enhancement with a Focus on Smuggling
2	290	Intelligent Route Planning for Post-Earthquake Rescues using IoT
3	463	Enhanced DDoS Detection in Software Defined Networking Using Ensemble-Based Machine Learning
4	608	A Real-Time IoT Cryptograph Communication of Chaotic-ADPCM Coding Method for IoT Applications
5	213	BSER: A Learning Framework for Bangla Speech Emotion Recognition
6	386	Enhancing Deep Convolutional Neural Networks to Detect Pedestrians Effectively in Various Urban Environments

Technical Session - 11F

Day-1, Thursday, 02 May 2024

Time: 1645 – 1815

Session Title: Biomedical Engineering

Venue: R-803, Tower – 3

Session Chair: Dr Raqibul Mostafa, EEE, UIU

Dr Muhammad Tarik Arafat, BME, BUET

SL	PID	Title of the paper
1	20	Numerical Analysis on PCF-based SPR Sensors' Air-hole Attributed Performance to Blood Cancer Detection
2	31	Blood Hemoglobin and Urine Glucose Level Detection Using Copper-Graphene Based SPR Biosensor
3	596	Enhancing Hyperspectral Image Compression through Stacked Autoencoder Approach
4	174	A Transfer Learning Approach for Neurodegenerative Disease Classification from Brain MRI Images: Distinguishing Alzheimer's, Parkinson's, and Control Cases
5	184	A Comparative Analysis of Different Preprocessing Pipelines for EEG-based Mental Stress Detection
6	632	Hybrid model-based Brain Tumor Detection and Classification using Deep CNN-SVM

Day-2: 03 May 2024 (Friday)

<p>Keynote – 5 Day-2, Friday, May 03, 2024 Time: 0800-0840</p>	
<p>Venue: R-801, Tower – 3 Zoom ID: 222 944 0185 Session Chair: Dr Syed Akhter Hossain, CSE, DIU</p>	
Keynote Speaker	Keynote Topic
<p>Prof Dr Ming C Lin University of Maryland, USA</p>	<p>Reconstructing Reality: Creating Digital Twins for the Metaverse</p>

<p>Keynote – 6 Day-2, Friday, May 03, 2024 Time: 0800-0840</p>	
<p>Venue: 802, Tower – 3 Zoom ID: 754 210 9887 Session Chair: Dr Kaushik Deb, CSE, CUET</p>	
Keynote Speaker	Keynote Topic
<p>Prof Dr José del R Millán University of Texas at Austin, USA</p>	<p>Brain-Robot Interaction</p>

<p>Keynote – 7 Day-2, Friday, May 03, 2024 Time: 0800-0840</p>	
<p>Venue: 803, Tower – 3 Zoom ID: 886 204 8862 Session Chair: Dr M Mofazzal Hossain, Pro-VC, Southeast University</p>	
Keynote Speaker	Keynote Topic
<p>Prof Dr Frede Blaabjerg Aalborg University, Denmark</p>	<p>Power electronics — the key technology for grid integration</p>

<p>Technical Session - 21A Day-2, Friday, May 03, 2024 Time: 0845 – 1015</p>		
Session Title: Artificial Intelligence-4		
<p>Venue: R-701, Tower – 3 Session Chair: Dr Nusrat Sharmin, CSE, MIST Dr Abul Barkat Mollah Sayeed Ud Doulah, EEE, ULAB</p>		
SL	PID	Title of the paper
1	321	An Effective Identification of Tuberculosis in Chest X-rays Using Convolutional Neural Network Model
2	330	Deep Learning for Detection of Mango Leaf Disease: A Comparative Study Using Convolutional Neural Networks Models
3	347	PyroVision: A Deep Learning Based Model for Wildfire Detection in Satellite Imagery
4	348	Revolutionizing Intensive Care: A Machine Learning Based Approach for ICU Patients' In-Hospital Mortality Prediction

5	353	Vehicle Number Plate Detection and Encryption in Digital Images Using YOLOv8 and Chaotic-Based Encryption Scheme
6	359	MSSC: Multi-Class Skin Cancer Classification and Interpretable Deep Learning Systems

Technical Session - 21B		
Day-2, Friday, May 03, 2024		
Time: 0845 – 1015		
Session Title: Artificial Intelligence -5		
Venue: R-703, Tower – 3		
Session Chair: Dr Md Forhad Rabbi, CSE, SUST Dr Dewan Md Farid, CSE, UIU		
SL	PID	Title of the paper
1	364	A Federated Learning-based Model for the Detection of Lung Cancer from CT Scan Images
2	367	Enhancing Bangladeshi Plants Classification Using Transfer Learning and CNN-Based Architecture
3	375	Fracture Classification in Musculoskeletal Radiographs Using Custom CNN and Ensemble Learning
4	379	Interpretability of Machine Learning Algorithms for News Category Classification Using XAI
5	383	Analyzing Sentiment and Unveiling Geopolitical Perspectives: A Comprehensive Study of Reddit Comments on the Contemporary Israel-Palestine Conflict
6	384	Enhancing Pneumonia Detection: CNN Interpretability with LIME and SHAP
7	552	A Comprehensive Analysis of Multi-Modal Deep Transfer Learning for Rice Leaf Disease Detection

Technical Session - 21C		
Day-2, Friday, May 03, 2024		
Time: 0845 – 1015		
Session Title: Power, Energy, and Climate Nexus		
Venue: R-704, Tower – 3		
Session Chair: Dr Nur Mohammad, EEE, CUET Dr Md Raju Ahmed, EEE, DUET		
SL	PID	Title of the paper
1	233	Microcontroller Based Pack to Cell Active Cell Balancing for Battery Management System (BMS) using Dc-Dc Fly-Back Converter
2	275	Performance Analysis of Hexagonal Shaped PCF Based Surface Plasmon Resonance Voltage Sensor
3	491	Highway of The Future: Floating Solar Charging Station Design for Chittagong's Kaptai Highway
4	153	Enhancing Solar System Efficiency Based on Precise Real-Time Energy Data Analysis and Sun Position Tracking
5	249	A Comparative Study of Economic Load Dispatch Problem Using Computer Simulation Tool, Conventional and Evolutionary Algorithms
6	294	Drop Control Strategy in Decentralized DC/AC Inverter-based Smartgrid for Power Balance
7	427	A High-Efficiency Dye-Sensitized Solar Cell Using PCDTBT:PCBM as Solid Electrolyte and Graphene Oxide as Hole Transport Layer

Technical Session - 21D		
Day-2, Friday, May 03, 2024 Time: 0845 – 1015		
Session Title: Multimedia and Signal Processing		
Venue: R-801, Tower – 3		
Session Chair: Dr A K M Nazrul Islam, EEE, UAP Dr A B M Aowlad Hossain, EEE, KUET		
SL	PID	Title of the paper
1	2	Segmentation of Bangla Compound Characters: Underlying Simple Character Detection from Handwritten Compound Characters using YOLOv8
2	88	Spectral-Spatial Feature Extraction for Multi-Change Detection in Bi-temporal Hyperspectral Images
3	110	Non-linear Statistical Filter Fusions for Optimal Intensity Fitting in Active Contour-Based Image Segmentation
4	144	A Deep Learning-Based Bengali Visual Question Answering System Using Contrastive Loss
5	177	Optical Mark Recognition with Object Detection and Clustering
6	292	EmotionNet: Pioneering Deep Learning Fusion for Real-Time Speech Emotion Recognition with Convolutional Neural Networks
7	338	A Gaussian-Extremum Image Pre-fitted Active Contour for Accurate and Faster Image Segmentation

Technical Session - 21E		
Day-2, Friday, May 03, 2024 Time: 0845 – 1015		
Session Title: Communication Technology-1		
Venue: R-802, Tower – 3		
Session Chair: Dr A K M Baki, EEE, AUST Dr Toyobur Rahman, EECE, MIST		
SL	PID	Title of the paper
1	54	An Intelligent Approach to Spectrum Sharing Process for Coexistence between Cellular and Wi-Fi Technologies
2	69	TA-TDP: A Topology Aware Total Dominant Pruning Broadcast Protocol to Reduce Forwarding Stations in Wireless Ad-hoc Networks
3	97	Performance Analysis of RIS- aided Wireless Networks in the Presence of Multiple Eavesdroppers
4	368	Efficient Multiple Moving Object Detection and Tracking by Uniform Rectangular Array-based Radar System for Surveillance
5	408	Soliton Properties in Coupled Nonlinear System with Dispersive Reflectivity: Finite Element Analysis
6	501	Enhancing Security in Multicasting Employing Generalized Receiver with SC Diversity and Opportunistic Relaying
7	622	Enhanced Humidity Sensing with Nafion-based Chipless RFID Resonators

Technical Session - 21F		
Day-2, Friday, May 03, 2024		
Time: 0845 – 1015		
Session Title: Biomedical Signal Processing		
Venue: R-803, Tower – 3		
Session Chair: Dr Enamul Hoque, BME, MIST Dr Md Shamim Anower, EEE RUET		
SL	PID	Title of the paper
1	283	Optimizing Skin Lesion Segmentation with UNet and Attention-Guidance Utilizing Test Time Augmentation
2	466	EEG-based Mouse Cursor Control using Motor Imagery Brain-Computer Interface
3	526	From Pixels to Diagnosis: Convolutional Neural Networks in Tuberculosis Screening
4	567	SwinMedNet: Leveraging Swin Transformer for Robust Diabetic Retinopathy Classification from the Retina MNIST2D Dataset
5	628	Classification of Gallbladder Cancer using Average Ensemble Learning
6	344	Towards Superior EEG-Based Emotion Recognition: Integrating CNN Outputs with Machine Learning Classifiers for Enhanced Performance
7	554	Bloodstain Classification in Forensic Analysis Using Optimized 3D CNN

Keynote – 8	
Day-2, Friday, 03 May 2024	
Time: 1030 - 1110	
Venue: MPH, L – 10, Tower – 1	
Session Chair: Dr Mustafa Habib Chowdhury, EEE, IUB	
Keynote Speaker	Keynote Topic
Prof Dr B M Azizur Rahman City, University of London, UK	Photonics, A Key Enabling Technology and Its Role to Achieve the UN Sustainable Development Goals

Keynote – 9	
Day-2, Friday, 03 May 2024	
Time: 1030 – 1110	
Venue: Int. Computing Lab, L-3, Tower – 3	
Zoom ID: 754 210 9887	
Session Chair: Dr M Abdus Samad, EECE, MIST	
Keynote Speaker	Keynote Topic
Prof Dr Muhammad Ali Imran University of Glasgow, UK	Role of Communications in remote healthcare and overcoming digital divide

Technical Session: Poster - II	
Day-2, Friday, 03 May 2024	
Time: 1115 – 1245	
Venue: Cafeteria, L – 1, Tower – 4	
Session Chairs:	
1. Dr Md Muhibul Haque Bhuyan, EEE, AIUB	
2. Dr Md Jahirul Islam, EEE, KUET	

3. Dr Muhammad Golam Kibria, CSE, ULAB
4. Dr Foez Ahmed, ICE, RU
5. Dr Md Jarez Mia, IICT, BUET
6. Dr Shameem Ahmad, EEE, AIUB
7. Dr Shekh Md Mahmudul Islam, EEE, DU

SL	PID	SL	PID	SL	PID	SL	PID
1	57	11	260	21	405	31	610
2	95	12	267	22	412	32	430
3	100	13	271	23	441	33	468
4	105	14	278	24	448	34	583
5	139	15	280	25	498		
6	165	16	356	26	519		
7	203	17	374	27	527		
8	215	18	389	28	546		
9	217	19	393	29	571		
10	253	20	396	30	589		

IEEE SB Co-located Event - II

Day-2, Friday, 03 May 2024

Time: 1115 – 1245

Session Title: Innovation Contest for Smart Bangladesh

Venue: Cafeteria, L – 1, Tower – 4

Session Chairs:

1. Dr Mohammad Abdul Matin, ECE, NSU
2. Dr Sajid Muhaimin Choudhury, EEE, BUET

IEEE BDS Session

Day-2, Friday, 03 May 2024

Time: 1115 – 1245

Venue: Cafeteria, L – 1, Tower – 4

Guest: Dr M Moshuiul Hoque, CSE, CUET

Dr Shahrir Khan, IEEE BDS Vice-Chair

IEEE Bangladesh Section's accomplishments: Past, Present and Future

WIE Session

Day-2, Friday, 03 May 2024

Time: 1430 – 1510

Venue: R-902, L-9, Tower – 3

Session Chair: Dr Shahriar Khan, EEE, IUB

Speaker	Topic
Prof Dr Celia Shahnaz 2023-2024 IEEE WIE Committee Chair	Diversity and Inclusion for Women Empowerment and Advancement
Dr. Mousiki Kar , Heritage Institute of Technology, Kolkata	Engineering the Future by Championing Change

Technical Session - 22A		
Day-2, Friday, May 03, 2024		
Time: 1515 – 1645		
Session Title: Artificial Intelligence - 6		
Venue: R-701, Tower – 3		
Session Chair: Dr Alim Al Islam, CSE, BUET Dr Fernaz Narin Nur, CSE, MIST		
SL	PID	Title of the paper
1	394	A Proposed Multilayer CNN Architecture for detecting Bangla Traffic Sign
2	395	A Multi-Model Approach for Classifying Sleep Disorders Utilizing Machine Learning and Deep Learning Techniques
3	397	Deep Transfer Learning Based Approaches for Classification of Chest CT Scans: Normal, COVID-19, and Pneumonia
4	413	Advancements in Breast Cancer Diagnosis: Integrating Classifier Algorithms, Neural Network and Ensemble Learning with PCA, VIF for Feature Selection and Dimensionality Reduction
5	423	Machine Learning Approaches to Estimate Requirements for Target Productivity of Garment Employees
6	428	Performance Analysis of Heart Disease Detection using Different Machine Learning Approaches

Technical Session - 22B		
Day-2, Friday, May 03, 2024		
Time: 1515 – 1645		
Session Title: Artificial Intelligence - 7		
Venue: R-703, Tower – 3		
Session Chair: Dr Khawza Iftekhar Uddin Ahmed, Pro-VC, GUB Dr Kamruddin Md Nur, CSE, AIUB		
SL	PID	Title of the paper
1	445	BERT-Based Personalized Course Recommendation System from Online Learning Platform
2	447	Leveraging the Robust Capability of Modified Multi-Layer Gated Recurrent Units for Fake News Detection
3	456	A Comprehensive Evaluation of Sampling Techniques in Addressing Class Imbalance Across Diverse Datasets
4	462	Unveiling Predictive Factors in Apple Quality: Leveraging LIME, SHAP, and the Synergy of Machine Learning Models and Artificial Neural Networks
5	314	A Semi-Supervised Approach for Identifying Cyberbullying Text in Bangla Language
6	480	IoT-based AI-integrated device for farmers: A recommendation system for crop cultivation
7	481	AI Data Analytics for Air Quality Modeling

Technical Session - 22C		
Day-2, Friday, May 03, 2024		
Time: 1515 – 1645		
Session Title: Artificial Intelligence - 8		
Venue: R-704, Tower – 3		
Session Chair: Dr Mohammed Imamul Hassan Bhuiyan, EEE, BUET Dr Hafiz Imtiaz, EEE, BUET		

SL	PID	Title of the paper
1	382	HybStock: A Hybrid Deep Learning-Based Model to Predict Stock Market on Dhaka Stock Exchange
2	483	KULemma: Towards a Comprehensive Bangla Lemmatizer
3	495	CochleaTion : Speech Emotion Recognition through Cochleagram with CNN-GRU and Attention Mechanism
4	516	Parasitology Unveiled: Revolutionizing Microorganism Classification Through Deep Learning
5	530	An Effective Way to Detect Phishing Websites Using Machine Learning
6	539	Humor Detection using Machine Learning Approach
7	548	A Novel Transformer Based Deep Learning Approach of Sentiment Analysis for Movie Reviews

Technical Session - 22D Day-2, Friday, May 03, 2024 Time: 1515 – 1645		
Session Title: Machines and Power Electronics		
Venue: R-801, Tower – 3 Session Chair: Dr Md Fayzur Rahman, EEE, GUB Dr Tareq Aziz, EEE, AUST		
SL	PID	Title of the paper
1	442	Design, analysis, and economic study of solar rooftop PV system on metro rail stations of Bangladesh
2	461	Performance Analysis of Machine Learning-Based Traditional and Ensemble Techniques for Smart Grid Stability Prediction
3	561	Navigating Solar Peaks: Simulation Study of Fuzzy Logic and Improved Perturb & Observe MPPT Techniques for Standalone PV Systems
4	566	Techno-economic Analysis of Solar PV-FC Hybrid Energy Systems: An Exploratory Perspective
5	625	Driving Sustainable Transportation and Energy Transition: Techno-economic Analysis of Fuel Cell Electric Vehicles and Residential Electrification for a Greener Bangladesh
6	626	An Improved Switching Control Technique of a Three-Phase Neutral Point Clamped Multilevel Converter in Reducing the Neutral Point Potential Swing
7	627	Investigating Techno-Economic Benefits of Integrating a Microgrid in IEEE 14 Bus Test Power System using Lagrangian Method

Technical Session - 22E Day-2, Friday, May 03, 2024 Time: 1515 – 1645		
Session Title: Semiconductor Devices and Circuits - 2		
Venue: R-802, Tower – 3 Session Chair: Dr Quazi Deen Mohd Khosru, EEE, BUET Dr Mahbub Alam, EEE, BUET		
SL	PID	Title of the paper
1	414	Performance Analysis of Low Young's Modulus Material-based Optical Fiber Pressure Sensor
2	424	A Comprehensive Analysis of a Low Noise Amplifier with -20.02 dB Return Loss and

		58.34 dB Open-Loop Gain
3	528	An Area Efficient Low Current Mismatch Charge Pump with loop filter for PLL Application
4	620	Integration of a Novel Folded Cascode Amplifier with Class AB Output Stage Featuring Enhanced Performance in 0.18 μm CMOS
5	630	An 87.25 dB Open-Loop Gain, 2.09 GHz Unity Gain Bandwidth 3-Stage Operational Amplifier Implemented Using 45nm Technology
6	595	Enhancing DAC Precision with INL and DNL Reduction via Memristor-Integrated Designs

Technical Session - 22F		
Day-2, Friday, May 03, 2024		
Time: 1515 – 1645		
Session Title: Communication Technology - 2		
Venue: R-803, Tower – 3		
Session Chair: Dr Pran Kanai Saha, EEE, BUET Dr Md Monir Hossen, ECE, KUET		
SL	PID	Title of the paper
1	61	Energy Efficient Bandwidth Aware Virtualized BBU Pool for 5G C-RAN
2	421	Design and Analysis of a mm Wave ‘W’ Shaped Patch Antenna with Dual-Band Characteristics
3	432	OTFS-Aided Waveform Design for MU-MIMO Joint Sensing and Communication Systems
4	464	A Perforated Dielectric Metasurface using 3-D Printing for Aperture Antenna Performance Improvement
5	496	Wavelet-Aided OTFS for Optical Wireless Communication
6	500	Secure Wireless Multicasting Using Generalized Receiver with MRC Diversity Technique
7	549	Grover's Quantum Search for the Signal Detection of OFDMA Downlink and SC-FDMA Uplink

Technical Session - 23A		
Day-2, Friday, May 03, 2024		
Time: 1715 – 1830		
Session Title: Artificial Intelligence - 9		
Venue: R-701, Tower – 3		
Session Chair: Dr Md Afzal Hossain, AET, BSMRAAU Dr AKM Muzahidul Islam, CSE, UIU		
SL	PID	Title of the paper
1	555	Garbage Classification Using a Transfer Learning with Parameter Tuning
2	560	Cataract Classification by Applying Mobile NetV2 on Different Edge Detection Filters
3	570	Hybrid Feature Extraction Approach for Robust Brain Tumor Classification: HOG, GLCM, and Artificial Neural Network
4	573	Bangladeshi Crop Disease Detection Using Convolutional Neural Network
5	576	SETLONDEMAND: Towards an On Demand ETL Approach for Semantic Data Warehouses
6	598	Attention Gated Multi- Axial Fusion Network for Brain MRI Lesion Segmentation

Technical Session - 23B		
Day-2, Friday, May 03, 2024		
Time: 1715 – 1830		
Session Title: Artificial Intelligence - 10		
Venue: R-703, Tower – 3		
Session Chair: Dr Md Hasanul Kabir, CSE, IUT Dr Md Motaharul Islam, CSE, UIU		
SL	PID	Title of the paper
1	17	Gastrointestinal Insights Redefined: An Integrated Hybrid Model Fusing Vision Transformer and Transfer Learning
2	214	A Comprehensive Respiratory Evaluation: Incorporating Lung Sound and Disease Classification Along with Spirometry Assessment
3	307	QuantoTrace: Quantum Error Correction as a Service for Robust Quantum Computing
4	331	BrailleSense: Deep Learning for Braille Character Classification
5	415	Multilingual Cyberbullying Classification for Social Platforms
6	436	Prediction of the Intensity of Physical Movement of Aged People
7	460	Enhancing DoS Detection in SmartGrid: Leveraging ML using PCA and Explainable AI

Technical Session - 23C		
Day-2, Friday, May 03, 2024		
Time: 1715 – 1830		
Session Title: Artificial Intelligence - 11		
Venue: R-704, Tower – 3		
Session Chair: Dr Md Golam Rashed, ICE, RU Dr T M Shahriar Sazzad, CSE, MIST		
SL	PID	Title of the paper
1	45	Assessing Mental Acuity Using Bioelectrical Impedance Spectroscopy Based Biomarkers
2	515	Error Detection in P300 Speller Device Applying Differential Entropy Features and Machine Learning Approaches
3	524	Machine Learning-driven Analysis of Suicidal Language on Social Media: A Dive into Natural Language Processing (NLP) Techniques
4	562	A Study To Classify Virus Genome Through Analyzing DNA Sequences Using Transformer Model
5	609	Heart Disease Prediction Using an Ensemble Solutions and Exploring the Effect of Target Engineering with Pearson Correlation based Feature Selection
6	599	Forecasting Electricity Consumption in Five Regions of Dhaka City: A Comparative Assessment among various ML-Boosting Models

Technical Session - 23D		
Day-2, Friday, May 03, 2024		
Time: 1715 – 1830		
Session Title: Special Session - 1		
Venue: R-801, Tower – 3		
Session Chair: Dr Kazi Abu Taher, ICT, BUP Dr Mostafa Zaman Chowdhury, EEE, KUET		
SL	PID	Title of the paper

1	9	Enhancing E-Learning : EEG Signal Classification to Evaluate Students' Understanding of Online Lectures
2	279	Space-Based Investigation of the Topside Ionosphere over Bangladesh including IRI Predictions
3	289	Brain Tumor Detection by Image Segmentation Using Customized UNet Deep Learning Based Model
4	406	Enhanced Isolated Bidirectional Resonant DC-DC Converter with Artificial Neural Network Control for Electric Vehicle Onboard Chargers
5	489	Balancing Security, Scalability and Decentralization of Blockchain using SHBF-Based Consensus
6	494	Indoor Positioning System for Smart Spaces
7	509	Management of EVs for Mitigating Unbalance in a LV Distribution Grid

Technical Session - 23E		
Day-2, Friday, May 03, 2024		
Time: 1715 – 1830		
Session Title: Special Session - 2		
Venue: R-802, Tower – 3		
Zoom Id: 886 204 8862		
Session Chair: Dr Hussain Md Abu Nyeem, EECE, MIST Dr Tahsina Farah Sanam, IAT, BUET		
SL	PID	Title of the paper
1	86	Profiling Fake News Spreader on Twitter Using Stochastic Gradient Descent
2	284	Integrating BERT Embeddings with SVM for Prostate Cancer Prediction
3	612	Enhanced Lexicon based Hybrid Method for Slang and Punctuation Scoring for Aspect Based Sentiment Analysis
4	254	Machine Learning Based Prediction of Anti-dengue Drugs Using Structure-activity Relationship Study
5	475	A Comparative Analysis of Statistical Machine Learning and Deep Learning for Identifying Cyber Trolls on Twitter Data
6	493	Enhancing Efficiency and Stability of CdTe-Based Solar Cells: A Simulation-Based Approach for Sustainable Energy Generation
7	409	Design & Performance Analysis of Graphene Based Tera Hertz Patch Antenna for 6G Applications

Technical Session – 23F		
Day-2, Friday, May 03, 2024		
Time: 1715 – 1830		
Session Title: Special Session - 3		
Venue: R-803, Tower – 3		
Zoom ID: 222 944 0185		
Session Chair: Dr Md Aminul Islam, EECE, MIST		
SL	PID	Title of the paper
1	98	Generating Photorealistic Images from Human-Generated Sketches: A GAN-based Synthesis Approach for Enhanced Visual Realism
2	99	Multilingual Sentiment Analysis on Social Media: Harnessing Deep Learning for Enhanced Insights and Decision Support for Foreign Travelers

Day-3: 04 May 2024 (Saturday)

Technical Session: Poster - III

Day-3, Saturday, 04 May 2024

Time: 0900 – 1040

Venue: Cafeteria, L – 1, Tower – 4

Session Chairs

1. Dr Md Maniruzzaman, ECE, KU
2. Dr Pintu Chandra Shill, CSE, KUET
3. Dr Khondokar Habibul Kabir, EEE, IUT
4. Dr Swakkhar Shatabda, CSE, UIU
5. Dr Kafiul Islam, EEE, IUB
6. Dr Molla Shahadat Hossain Lipu, EEE, GUB
7. Dr ASM Shihavuddin, EEE, GUB
8. Dr Mahdy Rahman Chowdhury, ECE, NSU

SL	PID	SL	PID	SL	PID	SL	PID
1	32	11	186	21	478	31	533
2	89	12	187	22	503	32	381
3	132	13	246	23	517	33	343
4	141	14	304	24	575	34	454
5	155	15	312	25	579	35	600
6	159	16	318	26	585		
7	167	17	400	27	594		
8	172	18	407	28	629		
9	180	19	453	29	305		
10	181	20	471	30	633		

Industry-Academia Session

Day-3, Saturday, 04 May 2024

Time: 0900 – 1040

Panel Discussion

MPH, L – 10, Tower – 1

Workshop on Cloud Computing

Day-3, Saturday, 04 May 2024

Time: 0900 – 1040

Speaker: Md Kaisar Ahmed Khan, Relisource Inc

Venue: Int. Computing Lab, 3rd Floor, Tower – 3

Best Paper Competition

Day-3, Saturday, 04 May 2024

Time: 1100 – 1310

A: Top-3 Best and Top-10 Student Paper

Venue: R-902, Tower – 3

B: Top-3 Poster Presentation

Venue: R-903, Tower – 3