



2024 2nd International Conference on Information and Communication Technology (ICICT 2024)

21-22 October 2024, Dhaka, Bangladesh

<https://icict.buet.ac.bd/>

Organised By: IICT, BUET

Technical Program at a Glance

Day 1: <i>Monday</i> 21 October 2024	Academic Council Bhaban, Main Campus, BUET	8:45 AM - 9:45 AM	Registration and Kit Distribution
		9:45 AM - 10:00 AM	Guests Take Their Seats
		10:00 AM - 10:30 AM	Inauguration Ceremony
		10:30 AM - 11:00 AM	Tea Break
		11:00 AM - 11:30 AM	Invited Talk
		11:30 AM - 12:30 PM	Tutorial on Cybersecurity
	Free Space (West Side) 7th floor, ECE Bhaban	12:30 PM - 2:00 PM	Lunch Break
	Room 705, IICT, ECE Bhaban	2:00 PM - 2:45 PM	Keynote Speech (Hybrid)
	Room 709/705, ECE Bhaban	2:45 PM - 4:30 PM	Technical Sessions 1, 2
	Free Space (West Side) 7th floor, ECE Bhaban	4:30 PM - 4:45 PM	Tea Break
Room 709/705, ECE Bhaban	4:45 PM - 6:15 PM	Technical Sessions 3, 4	
Room 705, ECE Bhaban	6:15 PM - 7:00 PM	Invited Talk (Hybrid)	
Day 2: <i>Tuesday</i> 22 October 2024	Free Space (West Side) 7th floor, ECE Bhaban	8:30 AM - 9:00 AM	Registration
	Room 705, IICT, ECE Bhaban	9:00 AM - 10:00 AM	Keynote Speech (Hybrid)
	Room 705, IICT, ECE Bhaban	10:00 AM - 10:45 AM	Keynote Speech (Hybrid)
	Free Space (West Side) 7th floor, ECE Bhaban	10:45 AM - 11:00 AM	Tea Break
	Room 709/705, ECE Bhaban, BUET	11:00 AM - 12:45 PM	Technical Sessions 5,6
	Free Space (West Side) 7th floor, ECE Bhaban, BUET	12:45 PM - 2:00 PM	Lunch Break
	Room 705, IICT, ECE Bhaban	2:00 PM - 3:00 PM	Keynote Speech (Hybrid)
	Room 709/705, ECE Bhaban	3:00 PM - 4:30 PM	Technical Sessions 7,8
	Free Space (West Side) 7th floor, ECE Bhaban	4:30 PM - 4:45 PM	Tea Break
	Room 709/705, ECE Bhaban	4:45 PM - 6:15 PM	Technical Sessions 9,10
	Gala Dinner, The Aristocrat Lounge, Dhanmondi	6:30 PM - 9:30 PM	Closing Ceremony & Awards

Technical Program Details

Day 1: Monday 21 October 2024

Inauguration

Academic Council Bhaban, BUET (Main Campus)

Time	Event
8:45 AM – 9:45 AM	Registration and Kit Collection
9:45 AM – 10:00 AM	Guests take their seats
10:00 AM – 10:30 AM	Inauguration Ceremony
10:30 AM – 11:00 AM	Tea Break

Invited Talk

11:00 AM – 11:30 AM 21 October 2024 Monday <i>Academic Council Bhaban, BUET (Main Campus)</i>	<p>Title: Navigating the Challenges of Machine Learning in Genomic Data Analysis</p> <p>Speaker: Dr. Abu Asaduzzaman, Professor, Department of ECE, Wichita State University, Kansas, USA</p> <p>Session Chair: Dr. Md. Liakot Ali, Professor, IICT, BUET</p>
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Tutorial

11:30 AM – 12:30 PM 21 October 2024 Monday <i>Academic Council Bhaban, BUET (Main Campus)</i>	<p>Title: AI based Cyber Security Research: From Data Preparation to Model Building</p> <p>Speaker: Dr. Md Mahbubur Rahman, Professor, Department of CSE, MIST, Dhaka</p> <p>Session Chair: Dr. Md. Saiful Islam, Professor, IICT, BUET</p>
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12:30 PM – 2:00 PM

Lunch & Prayer Break

Keynote Speech

2:00 PM – 2:45 PM
21 October 2024
Monday

*Room 705, IICT, ECE
Bhaban, BUET*

(Hybrid)

Title: Current Trends and Future Prospects of Electric Vehicle Communication System

Speaker: Dr. Ishak Aris, Professor, Faculty of Engineering, Universiti Putra Malaysia, Serdang, Malaysia

Session Chair: Dr. M. Moshikul Hoque, Professor, Department of CSE, CUET

Technical Session – 1: Artificial Intelligence – 01

Session Chair: *Dr. M. Imamul Hassan Bhuiyan, Professor, Department of EEE, BUET & Dr. Md. Sheikh Sadi, Professor, Department of CSE, Khulna University of Engineering and Technology*

	Paper ID	Paper Title and Author Details
2:45 PM – 4:30 PM 21 October 2024 Monday <i>Room 709, ECE Bhaban, BUET</i>	14	Evaluating the Text Summarization Efficiency of Large Language Models <i>Mondol Mridul Provakar (Rajshahi University of Engineering & Technology)*</i>
	18	Integrating Feature Selection and Extraction with Tuned Multilayer Perceptrons for Predicting Student Dropout Risk in Higher Education <i>Md. Rakibul Haque (Rajshahi University of Engineering and Technology); Zannatul Ferdousee (Rajshahi University of Engineering & Technology)*</i>
	19	Brain Stroke Prediction using Explainable Machine Learning and Time Series Feature Engineering <i>Safiul Haque Chowdhury (Bangladesh University)*; Mohammad Mamun (Bangladesh University); Mohammed Ibrahim Hussain (Bangladesh University); Md. Sadiq Iqbal (Bangladesh University)</i>
	32	Early-Stage Diabetes Risk Prediction utilizing Machine Learning with Explainable AI from Polynomial and Binning Feature Generation <i>Mohammad Mamun (Bangladesh University)*; Safiul Haque Chowdhury (Bangladesh University); Mohammed Ibrahim Hussain (Bangladesh University); Md. Sadiq Iqbal (Bangladesh University)</i>
	42	Unveiling Fake News with an Attention-Based CNN Model Using Hybrid Features

		<i>Francis Rudra D Cruze (Daffodil International University); Md. Faruk Hosen (Mawlana Bhashani Science and Technology University)*; Md. Suhag Ali (Daffodil International University); Md. Sarwar Mollah (Daffodil International University); Professor Dr Muhammad Shahin Uddin (Mawlana Bhashani Science and Technology University(MBSTU), Tangail-1902); Monir Morshed (Mawlana Bhashani Science and Technology University)</i>
	45	Classification of Ovarian Cancer by Machine Learning models and its Analysis by Explainable Artificial Intelligence <i>Sadia Alam Tumpa (North South University); Mohammad N Murshed (University of Tennessee)*</i>
	49	Multi-Class Segmentation of Liver & Tumor From CT Images Using 2D U-Net With ResNet152 as Backbone <i>Samiha Sumaia Joyeeta (Rajshahi University of Engineering & Technology (RUET))*; Md. Robiul Islam (Rajshahi University of Engineering & Technology (RUET))</i>

Technical Session – 2: Computer Applications & Security – 01

Session Chair: *Dr. Md Mahbubur Rahman, Professor, Department of CSE, MIST, Dhaka & Dr. M. Moshikul Hoque, Professor, Department of CSE, CUET*

	Paper ID	Paper Title and Author Details
2:45 PM – 4:30 PM 21 October 2024 Monday Room 705, ECE Bhaban, BUET	9	English offensive text detection using CNN based Bi-GRU model <i>Tonmoy Roy (Utah State University); Md. Robiul Islam (Uttara University)*; Asif Ahammad Miazee (Maharishi International University); Anika Antara (Brac University); Al Amin (American International University Bangladesh); Md Sunjim Hossain (Northern University)</i>
	55	Enhancing Transparency in DDoS Detection on SDN Using Explainable ML Models <i>Md. Zobair Raihan (Bangladesh University of Engineering and Technology)*; Dr. Md. Saiful Islam (BUET)</i>
	59	Statistical similarity measure for interpreting important features in machine learning <i>Abdul Halim Bhuiyan (Bangladesh University of Engineering and Technology (BUET))*; Tayaba Khondoker Tinny (Bangladesh University of Engineering and Technology (BUET)); Mohammed Forhad Uddin (Bangladesh University of Engineering and Technology (BUET))</i>

	60	<p>A Collection of Exploratory Data Analysis Techniques for Process Fault Detection in the Tennessee Eastman Dataset <i>Anika Tasnim (Bangladesh University of Engineering and Technology)*; Sadman Nasif (Bangladesh University of Engineering and Technology); Nahid Sanzida (Bangladesh University of Engineering and Technology)</i></p>
	81	<p>Streamlining Global Visa Processing and Document Verification: A Self-Sovereign Identity System for Secure and Efficient Visa Processing using Hyperledger Indy. <i>MD Saifur Rahman Chowdhury (Sylhet Engineering College)*; Nahiyah Habib Khan (Sylhet Engineering College); Dip Singha (Sylhet Engineering College); Tufael Ahmed (Sylhet Engineering College); Farhatul Hassan Chowdhury (Sylhet Engineering College); Monirul Islam Sarkar (University of Liberal Arts Bangladesh)</i></p>
	85	<p>Secured Text Based CAPTCHA using Customized CNN with Style Transfer and GAN based Approach <i>T. M. Amir - Ul - Haque H Bhuiyan (Bangladesh University of Engineering and Technology)*; Md. Anwar Hussen Wadud (Mawlana Bhashani Science and Technology University); Hossen A Mustafa (BUET)</i></p>
	138	<p>Enhancing the Capability of Single Error Correction and Double Error Detection Method <i>Dr. Md. Sheikh Sadi (KUET)*; MD. Peyal Molla (KUET); Amanullah Asraf (KUET); Professor Dr. Md. Liakot Ali (Bangladesh University of Engineering and Technology)</i></p>

4:30 PM – 4:45 PM

Tea Break

Technical Session – 3: Artificial Intelligence – 02

Session Chair: *Dr. Muhammad Nazrul Islam, Associate Professor, Department of CSE, MIST & Dr. Md. Sheikh Sadi, Professor, Department of CSE, Khulna University of Engineering and Technology*

	Paper ID	Paper Title and Author Details
4:45 PM – 6:15 PM 21 October 2024 Monday Room 709, ECE Bhaban, BUET	64	Advanced Machine Learning Techniques for Accurate Diagnosis of Respiratory Diseases Using Vocal Biomarkers <i>Mehadi Hasan Bijoy (Chittagong University of Engineering and Technology)*; Proloy Kumar Mondal (Khulna University); Mohtasin Fuad (CUET); Diba Das (Chittagong University of Engineering and Technology)</i>
	69	Enhanced CNN Approaches for Multi-Image Embedding in Image Steganography <i>Md. Irtiza Hossain (Brac University)*; Sheikh Kadir (Brac University); Farhan Ishraq Fagun (Brac University); Ishtiaq Samiul (BRAC University); Rafi Zaman Saukhin (BRAC University); Muhammad Iqbal Hossain (BRAC University)</i>
	78	Advancing Monkeypox Diagnosis: A Novel Approach Using a Custom Neural Networks <i>Md. Sayem Kabir (American International University - Bangladesh); Md Sadi Al Huda (Artificial Intelligence Research & Innovation Lab (AIRIL)); Kazi Tanvir (Vellore Institute of Technology); Fariha Tahseen Karim (Artificial Intelligence Research & Innovation Lab (AIRIL)); Md Musfikur Rahman Parvej (Artificial Intelligence Research & Innovation Lab (AIRIL)); SHAIF AHAMED TAMIM (Artificial Intelligence Research & Innovation Lab (AIRIL)); Md. Asraf Ali (American International University-Bangladesh)*</i>
	83	Regional Heatwave Prediction Using Deep Learning Models In Bangladesh <i>Sumaiya Siddiqua Mumu (Ahsanullah University of Science and Technology); Syeda Samia Sultana (Ahsanullah University of Science and Technology)*; Rafid Reezwan Fahim (Ahsanullah University of Science and Technology); Noshin Nawar Neha (Ahsanullah University of Science and Technology); Md. Shahriar Mahbub (Ahsanullah University of Science and Technology)</i>
	84	Biologically Inspired Network Design to Train Only Through Forward Pass <i>Md. Shahriar Hossain (BRAC University)*; Md Tasneemul Hassan (BRAC University); Md. Safaiat Hossain (Bangladesh Army University of Engineering and Technology)</i>

	95	Assisting the Visually Impaired with Situation Awareness: A New Perspective <i>Sheezanul Hassan (IICT, BUET)*; Professor Dr. Md. Liakot Ali (Bangladesh University of Engineering and Technology); Dr. Muhammad Sheikh Sadi (Bangladesh University of Engineering and Technology)</i>
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Technical Session – 4: Signal Processing & Robotics – 01

Session Chair: *Dr. Shafiul Alam, Professor, Department of EEE, Dhaka University & Mohammad Ariful Haque, Professor, EEE, BUET*

4:45 PM – 6:15 PM 21 October 2024 Monday		
Paper ID	Paper Title and Author Details	
30	Exploring the Efficacy of Modified Transfer Learning in Identifying Parkinson’s Disease Through Drawn Image Patterns <i>Nabil Daiyan (Rajshahi University of Engineering and Technology)*; Md. Rakibul Haque (Rajshahi University of Engineering and Technology)</i>	
33	A Compact Wideband Patch Antenna for Ka-band and 5G mm-wavelength Applications <i>Md. Shajib Hossain (Hajee Mohammad Danesh Science and Technology University); MD. Fazle Hasan Mihad (Hajee Mohammad Danesh Science and Technology University); Mahabuba Khatun (Hajee Mohammad Danesh Science and Technology University); Jannatun Ferdous (Hajee Mohammad Danesh Science and Technology University); Mahfujur Rahman (Hajee Mohammad Danesh Science and Technology University)*</i>	
50	Exploring Protein-Protein Interactions Network, Prediction of Drugs and Association of Genes with Diseases among Anxiety, Insomnia and Depression: A Computational Biology Approach <i>Urmi Bose (Department of Information and Communication Technology, Mawlana Bhashani Science and Technology University(MBSTU)); Mahadi Hasan Rومان (Mawlana Bhashani Science and Technology University); Md. Rakibul Hasan (Department of Software Engineering (SWE), Daffodil International University (DIU)); Denesh Das (Lamar University); Bikash Kumar Paul (Department of Information and Communication Technology, Mawlana Bhashani Science and Technology University)*</i>	
53	A Deep Learning Based Approach for the Categorization of Actions in Cricket Videos	

		<i>Tanjum Motin Mitul (Chittagong University of Engineering & Technology); Musfequa Rahman (Chittagong University of Engineering & Technology); Kaushik Deb (Chittagong University of Engineering & Technology)*</i>
	61	Deep Learning Approach for Multi-label Detection of Abusive Bangla Social Media Comments <i>Saieef Sarower Sunny (University of Liberal Arts Bangladesh)*; Dewan Rezwan Ahmed (none); Ahashan Habib (University of Liberal Arts Bangladesh); Sajida Kabir (University of Liberal Arts Bangladesh); Abdulla Masud (University of Liberal Arts Bangladesh); Dr. Nafees Mansoor (ULAB)</i>
	75	Integrated Bioinformatics and Machine Learning Analysis Reveals Shared Key Candidate Biomarkers and Therapeutic Targets in Ulcerative Colitis and Colorectal Cancer <i>Sakib Sarker (Uttara University)*; Md. Faruk Hosen (Daffodil International University); Md. Abul Basar (Mawlana Bhashani Science and Technology University); Emon Ahammed (Mymensigh Engineering College)</i>

Invited Talk

6:15 PM – 7:00 PM
21 October 2024
Monday

*Room 705, ECE
Bhaban, BUET*

(Hybrid)

Title: 6G Robotics: Potential of Next-Generation Connectivity

Speaker: Dr. Ir. Neeli Prasad, CEO & Co-Founder SmartAvatar B.V. The Netherlands

Session Chair: Dr. Selina Sharmin, Associate Professor Department of CSE, Jagannath University, Dhaka

Day 2: Tuesday 22 October 2024

Keynote Speech

9:00 AM – 10:00 AM
22 October 2024
Tuesday

*Room 705, IICT, ECE
Bhaban, BUET*

(Hybrid)

Title: Generative AI including Large Language Models for Social Good & Cyber-Security

Speaker: Dr. Latifur Khan, Professor, Department of Computer Science, University of Texas at Dallas (UT Dallas)

Session Chair: Dr. Hossen Asiful Mustafa, Professor, IICT, BUET

Keynote Speech

10:00 AM – 10:45 AM
22 October 2024
Tuesday

*Room 705, IICT, ECE
Bhaban, BUET*

(Hybrid)

Title: Internet Civilization

Speaker: Dr. Jun Murai, Distinguished Professor, Keio University, Japan

Session Chair: Dr. Md. Saiful Islam, Professor, IICT, BUET

10:45 AM – 11:00 AM

Tea Break

Technical Session – 5: Artificial Intelligence – 03

Session Chair: *Dr. Muhammad Aminul Haque Akhand, Professor, Department of CSE, KUET & Dr. Md. Jarez Miah, Assistant Professor, IICT, BUET*

	Paper ID	Paper Title and Author Details
<p>11:00 AM – 12:45 PM 22 October 2024 Tuesday</p> <p>Room 709, ECE Bhaban, BUET</p>	90	<p>Prediction of Movie Box Office Success using YouTube Trailer Comments and Wikipedia Data <i>Tasin Mohammad (Brac University)*; Najeefa Nikhat Choudhury (Brac University)</i></p>
	91	<p>Optimizing Privacy and Efficiency in Brain Tumor Classification through Advanced Non-IID Federated Deep Learning <i>Dr. Md Samsuzzaman (Patuakhali Science and Technology University)*; Rakibul Hasan Sezan (Patuakhali Science & Technology University (PSTU)); Arjon Golder (Patuakhali Science And Technology University); Md Abdul A Masud (Patuakhali Science and Tech. University); Mohammad Muradul bashir (Patuakhali Science And Technology University)</i></p>
	94	<p>ResViT: An Integrated Approach Using ResNet50v2 and Vision Transformer for Enhanced Bangla Handwritten Character Recognition <i>Kazi Tanvir (Vellore Institute of Technology); Md Sadi Al Huda (Artificial Intelligence Research & Innovation Lab (AIRIL)); Md. Sayem Kabir (American International University - Bangladesh); Rezwon Obayed Nishan (Artificial Intelligence Research & Innovation Lab (AIRIL)); MD. FAHIM ATTEF (Artificial Intelligence Research & Innovation Lab (AIRIL)); Md. Asraf Ali (American International University-Bangladesh)*</i></p>
	100	<p>Hybrid Method for Monitoring Sundarbans Mangrove Forest Using Satellite Images <i>MD.Abdullah Al Naim (Ahsanullah University of Science and Technology); Shihab Sarar (Ahsanullah University of Science and Technology); Mahdi Hasan (Ahsanullah University of Science and Technology); Md Maruf Hossain Tasin (Ahsanullah University of Science and Technology); Omar Farrok (Ahsanullah University of Science and Technology)*</i></p>
	104	<p>An Autoencoder-based Approach of Automatic Writer Identification from Biscriptual Characters <i>Rifa Tabassum Mim (RUET)*; Shah Ariful Hoque Chowdhury (RUET); Al Nahian Mugdho (Rajshahi University of Engineering & Technology)</i></p>

	108	Utilizing Squeeze-and-Excite Mechanisms and Voting Ensembles Technique for Coffee Leaf Disease Detection <i>Imranul Islam Adnan (Ahsanullah University of Science and Technology)*; Mohammed Z Waughfa (Ahsanullah University of Science and Technology); Mohima Ahmed Joyee (University of Dhaka)</i>
	113	Early Diagnosis and Classification of Alzheimer's Disease Using Convolutional Neural Network based on MRI Images <i>Salauddin Shanto (Rajshahi University of Engineering & Technology); Nazmul Haque (Rajshahi University of Engineering & Technology (RUET))*</i>

Technical Session – 6: Computer Applications & Security – 02

Session Chair: *Dr. Abu Asaduzzaman, Professor, Wichita State University, Kansas, USA & Dr. Shafiul Alam, Professor, Department of EEE, Dhaka University*

	Paper ID	Paper Title and Author Details
11:00 AM – 12:45 PM 22 October 2024 Tuesday Room 705, ECE Bhaban, BUET	86	Dynamic Authentication Scheme for Advanced Security in Federated Metaverse Systems <i>Md Fuad Hasan (BRAC University)*; F.M. Ashfaq (BRAC University); Ahmed Awsaf Chowdhury (BRAC University); Shoeb Islam Hamim (BRAC University); Mustafiza Rahmani (BRAC University); Muhammad Iqbal Hossain (BRAC University)</i>
	93	Analyzing and Forecasting Dew Point Temperature Trends in Bangladesh <i>Md. Abdullah (Mawlana Bhashani Science and Technology University)*; Sajjad Waheed (Mawlana Bhasani Science and Technology University); Monir Morshed (Mawlana Bhashani Science and Technology University); Md. Mahmudul Hasan (BDU)</i>
	120	A robust framework to secure IoT sensor data using Elliptic Curve Cryptography based CP-ABE and Secret sharing scheme <i>Anika Bushra (Rajshahi University of Engineering & Technology)*; Mahit Kumar Paul (Rajshahi University of Engineering & Technology)</i>
	136	Color-Based Auto-Rickshaw Detection Using Convolutional Neural Networks for Intelligent Transportation Systems <i>Nakib Aman Turzo (Pabna University of Science and Technology)*; Md.Mehedi Hasan (Developer Experience Hub); Md Wadud Jahan (Varendra University)</i>

	149	Enhancing Marine Radar Security Through Semi-Supervised Learning: A Self-Training Approach <i>Md. Alamgir Hossain (Bangladesh University of Engineering and Technology (BUET))*; Md Delwar Hossain (Nara Institute of Science and Technology); Md. Sharafat Hossain (Bangladesh University of Engineering and Technology); Md. Saiful Islam (Bangladesh University of Engineering and Technology (BUET)); Professor Dr. Md. Mahbubur Rahman Rahman (Military Institute of Science and Technology (MIST)); Hossen A Mustafa (BUET)</i>
	151	Secure and Transparent Driver Profiling Using Blockchain and IPFS for Smart Cities <i>Raufar Mostafa (BRAC University)*; Maliha Jahan Maisha (BRAC University); Nafisa Muhammad (BRAC University); Shifath Jahan Prity (BRAC University); Muhammad Iqbal Hossain (BRAC University)</i>
	158	Environmental Sound Pollution Mapping Using Supervised Deep Learning <i>Shadman Mahmood Khan Pathan (Old Dominion University)*; Sakan Binte Imran (Sir Salimullah Medical College); M M Shabab Iqbal (Kalinga Institute of Industrial Technology)</i>

12:45 PM – 2:00 PM

Lunch & Prayer Break

Keynote Speech

2:00 PM – 3:00 PM
22 October 2024
Tuesday

*Room 705, IICT, ECE
Bhaban, BUET*

(Hybrid)

Title: Computational Approaches to Predict Natural Antibiotics based on Traditional Herbal Medicines

Speaker: Dr. Md. Altaf-Ul-Amin, Associate Professor, NAIST, Japan

Session Chair: Dr. Md. Liakot Ali, Professor, IICT, BUET

Technical Session – 7: Artificial Intelligence – 04

Session Chair: *Dr. Mohammed Nasir Uddin, Professor, Department of ICT, Bangladesh University of Professionals (BUP) & Dr. Muhammad Aminul Haque Akhand, Professor, Department of CSE, KUET*

	Paper ID	Paper Title and Author Details
3:00 PM – 4:30 PM 22 October 2024 Tuesday Room 709, ECE Bhaban, BUET	116	Machine Learning Based Smart System For Blind and Visually Impaired People <i>Md Shadman Shakib (Noakhali Science and Technology University)*; Md. Eyakub Ali (Noakhali Science & Technology University); Robin Khisa (Noakhali Science & Technology University); K. Zaman (Noakhali Science and Technology University); Subrata Bhowmik (Noakhali Science and Technology University)</i>
	118	Exploring Transformer and Recurrent Neural Models for Sentiment Analysis of Mobile App Reviews <i>George Tonmmoy Roy (Khulna University of Engineering and Technology (KUET))*; Dipannita Biswas (Khulna University of Engineering & Technology)</i>
	129	DeepResVit: A Hybrid Deep Learning Approach for Ovarian Cancer Classification with XAI <i>Aurnob Al Rafi (American International University-Bangladesh(AIUB)); Tahmid Enam Shrestha (American International University-Bangladesh); Md Sadi Al Huda (Artificial Intelligence Research & Innovation Lab (AIRIL)); SHAI AHAMED TAMIM (Artificial Intelligence Research & Innovation Lab (AIRIL)); Ridwan Ahmed Arman (Artificial Intelligence Research & Innovation Lab (AIRIL)); Md. Asraf Ali (American International University-Bangladesh)*</i>
	142	Semantic Segmentation in Satellite Imagery: An Attentive U-Net Approach <i>Nafisa Islam (CUET)*; Md. Farhad Hossain (Chittagong University of Engineering and Technology); Md. Azad Hossain (Chittagong University of Engineering and Technology)</i>
	144	YOLO Goes Green: Unveiling Sundarbans Biodiversity using Leaf Image Classification <i>Md. Nazmul Hossain Shishir (Khulna University); Aminul Islam (Khulna University)*; Md. Sajjad Hossain Tuhin (Khulna University); Mohammad Siddique (Khulna University); Md Nazrul Islam (Khulna University)</i>
	148	An Adaptive Machine Learning Approach for Electrical Fault Detection and Minimization

		<i>Md. Emran Biswas (Hajee Mohammad Danesh Science and Technology University)*; Md Sayem Ahamed (United International University); Md. Abid Hasan Rafi (Hajee Mohammad Danesh Science and Technology University); Md Dulal Haque (Hajee Mohammad Danesh Science and Technology University)</i>
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Technical Session – 8: Telecommunications & IoT – 01

Session Chair: *Dr. Fahmida Hossain Tithi, Associate Professor, Department of EEE, Daffodil International University & Dr. Md Aminul Islam, Associate Professor, Department of EECE, MIST, Dhaka*

		Paper ID	Paper Title and Author Details
3:00 PM – 4:30 PM 22 October 2024 Tuesday Room 705, ECE Bhaban, BUET		34	Gesture Controlled Bot with Temperature & Humidity (TH) Sensing Features <i>Mohammad Tahsin Alam (Bangladesh University of Engineering and Technology (BUET)); Yasir Mahmud (Bangladesh University of Engineering and Technology); Zafrin J Nikita (Bangladesh University of Engineering and Technology); Dr. Sajid Muhaimin Choudhury (Bangladesh University of Engineering & Technology (BUET))*</i>
		44	IoT-based Smart Water Consumption Monitoring System for Residential Complex <i>Imtiaz Ahamed (Bangladesh University of Engineering and Technology); Professor Dr. Md. Liakot Ali (Bangladesh University of Engineering and Technology); Nazmus Salehin (Bangladesh University of Engineering and Technology)*</i>
		46	Modeling of 5G-Enabled Hybrid Visible Light Communication Systems for Autonomous Vehicles <i>Muhammad Towfiqur Rahman (University of Asia Pacific)*; A S M Bakibillah (Tokyo Institute of Technology); Alope Kumar Saha (University of Asia Pacific)</i>
		79	Wi-Fi CSI-based Vibration Sensing for Industrial Fault Detection <i>Tahsin Azad Tias (Chittagong University of Engineering and Technology)*; Dr. Asaduzzaman (Chittagong University of Engineering and Technology)</i>
		98	A Multi-Band Microstrip Patch Antenna for Application in Wireless Communication Systems <i>Md. Nasrulla Khan (Khulna University of Engineering & Technology)*; Dr. Sk. Shariful Alam (Khulna University); Priti Bose (Khulna University of Engineering & Technology (KUET))</i>

4:30 PM – 4:45 PM

Tea Break

Technical Session – 9: Signal Processing & Robotics – 02

Session Chair: *Dr. Muhibul Haque Bhuyan, Professor, Department of EEE, American International University-Bangladesh (AIUB) & Lt Col Muhammad Nazrul Islam, PhD, Associate Professor, Department of CSE, MIST, Dhaka*

	Paper ID	Paper Title and Author Details
<p>4:45 PM – 6:15 PM 22 October 2024 Tuesday</p> <p>Room 709, ECE Bhaban, BUET</p>	68	<p>Enhanced Image Colorization through Generative Adversarial Network <i>Md. Khairul Islam (Chittagong university of Engineering and Technology); Nusrat Jahan Iqra (CUET); Rifa Nawal (Chittagong University of Engineering and Technology); Md. Al-Mamun Provath (Chittagong University of Engineering and Technology)*</i></p>
	88	<p>Fetal Head Segmentation and Head Circumference Measurement Using Residual U-net <i>Limon Halder (KUET)*; Shetu Mohanto (Khulna University Of Engineering & Technology (KUET)); Monira Islam (EEE, KUET); Md Tasnim Jawad (KUET)</i></p>
	89	<p>Leveraging Attention Mechanisms in Vision Transformer for Human Activity Recognition <i>Abir Hassan (Chittagong University of Engineering and Technology)*; Md. Shihab Hossain (Green University of Bangladesh); Kaushik Deb (Chittagong University of Engineering & Technology)</i></p>
	135	<p>LIME-RAY: What Does a Neural Network See from X-Rays? <i>Ayon Datta (Ahsanullah University of Science and Technology); Wasif Al Wazed Wasi (Rajshahi University of Engineering & Technology); Fahim Muntasir (BRAC University)*; Mahdee Nafis (Rajshahi University of Engineering and Technology)</i></p>
	145	<p>Enhancing Heart Disease Diagnosis with Machine Learning Algorithms: An Evaluation on Imbalanced Data and Performance Metrics <i>Nimur Rahman (Faridpur Engineering College, University of Dhaka)*; Md. Ashif Mahub (Islamic University of Technology); Md. Hasib Mahub (Bangladesh Army University of Science and Technology, Saidpur)</i></p>
	152	<p>V-Shopper: A Virtual Automatic Shopping System Based on 5 DOF Robotic Arm with Real-Time Product Visualization and Billing <i>Tamim Hasan Bhuiyan (Bangladesh University of Engineering & Technology)*; Md. Asif Kabir (Bangladesh University of Engineering and Technology); Shaikh Anowarul Fattah (BUET)</i></p>

	160	<p>A Bioinformatics Approach to Identify Hub Genes Across Schizophrenia, Anxiety, Bipolar Disorder, and Depressive Disorder for Network-Based Drug Discovery</p> <p><i>Md. Emran Biswas (Hajee Mohammad Danesh Science and Technology University)*; MD Galib Hasan (Hajee Mohammad Danesh Science and Technology University); Md. Jobare Hossain (Hajee Mohammad Danesh Science and Technology University); Md. Abul Basar (Uttara University); Md. Selim Hossain (Hajee Mohammad Danesh Science and Technology University)</i></p>
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Technical Session – 10: Telecommunications & IoT – 02

Session Chairs: *Dr. Md. Forkan Uddin, Professor, Department of EEE, BUET & Dr. Tahsina Farah Sanam, Associate Professor, IAT, BUET*

			Paper ID	Paper Title and Author Details
<p>4:45 PM – 6:15 PM 22 October 2024 Tuesday</p> <p>Room 705, ECE Bhaban, BUET</p>	122	<p>Enhancing Fire Safety: Encoder-Decoder Based Detection and IoT-Driven Response System</p> <p><i>George Tonmmoy Roy (Khulna University of Engineering and Technology (KUET))*; Atiqul Islam Atik (Khulna University of Engineering & Technology); Masudur Rahman Rabby (KUET); Md. Repon Islam (Khulna University of Engineering & Technology)</i></p>		
	123	<p>Gain Enhancement of a Double-Sided MIC Technology-Inspired Microstrip Array Antenna Using FSS Reflector</p> <p><i>Muhammad Asad Rahman (Chittagong University of Engineering and Technology (CUET)); Md. SSC Manjur (Chittagong University of Engineering and Technology)*; Anoy Roy (Chittagong University of Engineering and Technology); Eisuke Nishiyama (Saga University); Ichihiko Toyoda (Saga University)</i></p>		
	134	<p>An Improved Dependent Task Offloading in Device-Edge-Cloud using Favorite Predecessor Task</p> <p><i>MD. Sakhawat Hossain (Khulna University of Engineering and Technology)*; Dr. M. M. A. Hasehm (KUET)</i></p>		
	141	<p>Performance analysis of hybrid DRA-SOA for WDM based fiber optic transmission system</p> <p><i>Fahmida Tithi (Daffodil international University)*; Foysal Ahmed (Daffodil International University); MD Tanjit (Daffodil International University); MD ARIF MIA (Daffodil international University)</i></p>		

	150	<p>Designing of a PCF Based Ultra-High Negative Dispersion Compensation for Optical Transmission Link</p> <p><i>Md. Ibadul Islam (Bangladesh University of Engineering and Technology)*; Md. Saiful Islam (Bangladesh University of Engineering and Technology (BUET))</i></p>
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Closing Ceremony	
Time	Event
6:30 PM	Transportation From ECE Bhaban, BUET, towards Dhanmondi
7:30 PM – 9:00 PM	Gala Dinner at The Aristocrat Lounge, 9/A Satmasjid Road, Dhaka 1205 Dhanmondi
9:00 PM – 9:15 PM	Best Paper Awards
9:15 PM – 9:30 PM	Closing Speech

