

International Conference on 4IR for Emerging Future (4IREF)

Tentative Program Schedule

Common Session 1: 4 Nov 2022 – Friday (10:00am ~ 12:40pm)

Venue: IEB Auditorium

Inauguration and Keynote 1 and 2

Time	Venue: IEB Auditorium
10:00 am ~ 11:00 am	Inauguration at IEB Auditorium
11:00 am ~ 11:15 am	Tea Break
11:15am ~ 12:00 am	Keynote Speech 1 at IEB Auditorium, Mr. Zunaid Ahmed Palak, MP
12:00 pm ~ 12:40 pm	Keynote Speech 2 at IEB Auditorium, Prof. Dr. Joyashree Roy
12:40 pm ~ 2:30 pm	Lunch and Prayer Break

Special Session 1: 04 Nov 2022 (Friday); 2:30pm to 5:00pm

Venue: IEB Council Room, 1st Floor, Main Building

Domain	Meet Our Top Industry Leaders		
Session Chair	Prof. Dr. Munaz Ahmed Noor		
Session Co-Chair	Prof. Roshidul Hasan		
2:30pm ~ 5:00 pm	ID	Title	Author Name
	1100	Professionalism and Ethics in the Domain of Cyber Security: Role of NTMC	Maj. Gen. Ziaul Ahsan
	1102	High Tech Parks of Bangladesh	Dr. Bikarna Kumar Ghosh
	1115	Journey of Digital Bangladesh and Pathway towards Smart Bangladesh Vision 2041 materializing 4IR	Brig. Gen. Md. Nasim Parvez
	1116	Efficient use of natural gas can open a window for industrial revolution	Engr. Haronur Rashid Mullah
	1139	Preparedness of Roads and Highways Department (RHD) in the face of 4th Industrial Revolution	Engr. AKM Manir Hossain Pathan
	1140	Harnessing 4IR for Water Sector	Engr. Fazlur Rashid

Session 2: 04 Nov 2022 (Friday); 2:30pm to 5:00pm

Venue: Conference Hall, 3rd Floor, Main Building

Domain	Civil and Environmental Engineering, 3D Printing		
Session Chair	Dr. Azharul Islam		
Session Co-Chair	Dr. Armana Sabiha Huq Liva		
2:30pm ~ 5:00 pm	ID	Title	Author Name
	83	Experimental Investigations on CFRP Strengthen Aluminum, Stainless Steel and Mild Steel Tubular Sections under Interior-Two-Flange Loading	Dr. S. M. Zahurul Islam
	54	Seismic Response of Flat Plate Industrial Buildings According to BNBC-2020	Mr. Rifat Bin Ahmed Majumder
	127	Comparison Of Parametric Properties of Cement Mortars Made with Partial Replacement of Cement by Fly Ash and Rice Husk Ash	Chowdhury Arafat Hossain
	131	Efficacy of Ferrocement at retrofitting URM walls	Abu Hasnat
	134	Effect of crumb rubber on the mechanical properties of asphalt mixtures	Hameem Al Hussain
	141	Study On The Mechanical Properties Of Clayey Sand Soil Reinforced With Palmyra Palm Fiber	Shah Aymaan Ibtihal
	196	A review of 3D printed concrete application in Bangladesh	Robiul Hossain Chy
	188	Characterizing and Assessment of Water Resources Using Isotope Techniques: Opportunities and Active Research Areas in Bangladesh	Nasir Ahmed

Session 3: 04 Nov 2022 (Friday); 2:30pm to 5:00pm

Venue: ERC Hall, 2nd Floor, Main Building

Domain	BigData and Business Intelligence, Blockchain, Cyber Security		
Session Chair	Dr. Muhibul Haque Bhuyan		
Session Co-Chair	Dr. Saiful Islam		
2:30pm ~ 5:00 pm	ID	Title	Author Name
	1138	Cyber Threats and Supply Chain Management with 4th industrial revolution (4IR)	Dr. Windhya Hansinie Rankothge
	1136	Enhancing Smart City Initiatives using Blockchain and Edge Computing	Dr. Rajesh Ingle
	33	US Dollar Rate Prediction Using ANN-LSTM Deep Forecasting Model	Jia Uddin
	136	Applying Business Intelligence for Analyzing Big Data Using High-Performance Compressed Columnar Database System for Data Warehouse.	Mohammad Shohal Bhuiyan
	159	Development of Portable Business Intelligent (BI) system of Core Banking Solution to reduce cost and time in banking industry	Engr. Md. Abul Kalam
	239	Expert System: The Groundwork of 4th Industrial Revolution	Shaila Shahreen Snigdha
	1030	How blockchain technologies such as smart contract, decentralized applications and NFT can be used in a customized platform to simplify the process of protecting intellectual property rights	Faruq Ahmed Jewel
	31	Sentiment Analysis using Social Media Crime Data	Sovon Chakraborty

Session 4: 04 Nov 2022 (Friday); 2:30pm to 5:00pm

Venue: Seminar Room, 1st Floor, IEB Old Building

Domain	Agro Tech and Agro Economy		
Session Chair	Dr. Shaikh Md. Mominul Alam		
Session Co-Chair	Dr. Iqbal Mahmud Chanchal		
2:30pm ~ 5:00pm	ID	Title	Author Name
	1123	Faba bean breeding Technology at Plant Breeding Institute, University of Sydney, Narrabri NSW 2390, Australia	Dr. Abdus Sadeque
	1126	Frontier Technologies in Sustainable Plant Health and Food Security	Dr. Tofazzal Islam
	1070	Big data generation and analyses in fisheries sector; Prospect and Challenges in Bangladesh Perspective	Dr. Imran Parvez
	202	praniSheba Vet: A Transformation Of Veterinary Services Through The Use 4IR Technologies	Dr. Rezaul Alam Reza
	222	Effect of Organic Manure on Growth Performances and Nutritive Value of Pakchong Forage Genotype	Dr. Md. Shafiqul Islam
	243	Agriculture 4.0 in Bangladesh: Machine Learning and Big Data in Precision Agriculture	Dr. Dewan Md. Farid
	244	Formulation And Quality Evaluation of Ready to Drink Coffee from Date Seed Powder	Umme Habiba
	255	CalciFlour, Asset of a New Food-era.	Talha Jubair
	51	Smart irrigation using embedded system.	Engr.Mushfiq-Uz-Zaman

Session 5: 04 Nov 2022 (Friday); 2:30pm to 5:00pm

Venue: Lab 1, 1st Floor, Engineering Staff College

Domain	Digital Transformation		
Session Chair	Dr. Shohrab Hossain		
Session Co-Chair	Engr. Mohammad Kamruzzaman		
2:30pm ~ 5:00 pm	ID	Title	Author Name
	1129	From Automated to Autonomous : 4IR Perspective	Dr. Greg
	1101	4IR in Government and Private Sectors in Bangladesh	Mr. Habibullah N Karim
	15	Development of Modern Controlling Systems for Room Furniture and Appliances	Abdullah Al Jannath Newaz
	38	A Road Map towards Smart Design and Vetting, Effective Licensing and supervision of Works	Md. Moniruzzaman Bapari Peng.
	181	Development of Hybrid Data Migration System from Legacy System to Core Banking Solution to reduce cost and time in banking industry	Engr. Md. Abul Kalam
	242	Green Computing for Safe and Sustainable Development	Dr. Mohammad Shamsul Arefin
	1004	Sustainability is a major concern globally	Shah Mostofa Tariquzzaman MCIPS
	1010	Development Of Autonomous Fire Fighting Drone Using Sound Wave Method	Ahmed Swaroar Arnob
	1135	Trustworthiness and Security for 6G!	Neeli Rashmi Prasad

Session 6: 04 Nov 2022 (Friday); 2:30pm to 5:00pm

Venue: Lab 2, 1st Floor, Engineering Staff College

Domain	EduTech		
Session Chair	Dr. M Monowar Hossain		
Session Co-Chair	Dr. M A Matin Chowdhury		
2:30pm ~ 5:00 pm	ID	Title	Author Name
	1802	You Think You're Future Ready. I Bet You're NOT!	Dr. Melissa Sassi
	1121	Prospect and Challenges of Fourth Industrial Revolution in Higher Education	Dr. Md. Habibur Rahman
	1013	The Fourth Industrial Revolution and the Higher Education System in Bangladesh	Dr. Abdul Mannan Choudhury
	1014	Mechatronics Engineering in the Higher Education of Bangladesh	Dr. Abdul Mannan Choudhury
	194	Research on the Curriculum of Technical Education in Bangladesh and Reality	Sabbir Ahamed
	1026	A role model for bridging traditional and alternative educational systems, with ethical professionalism in educational technology	Dr. M. Nazmus Sayadat
	1057	Online Practicum: Exploring the Opportunities & Challenges of Pre-service Student of the University of Dhaka, Bangladesh	Tahmina Hoq
	132	The Opportunities and Challenges of Fourth Industrial Revolution in Sustainable Construction Industry	Dr. Kh. Mahfuz-ud-Darain
	1071	Education Technology (EduTech)	Md. Afzal Hossain Sarwar

Session 7: 04 Nov 2022 (Friday); 2:30pm to 5:00pm

Venue: Lab 3, 1st Floor, Engineering Staff College (Location Updated: RIOSA Room, 1st Floor, Old Dhaka Center)

Domain	Biomedical Engineering and Life Science		
Session Chair	Dr. Jibon Poddar		
Session Co-Chair	Dr. Tarik Arafat		
2:30pm ~ 5:00 pm	ID	Title	Author Name
	1118	Hydrogen Ambulance and Medical Cargo Drone	Dr. Yasuhiro Soshino
	80	PVDoctor: CLOUD BASED VIRTUAL DOCTOR FOR PARKINSON'S DISEASE SCREENING AND MONITORING	Dr. Khondaker Abdullah Al Mamun
	98	Country on a Mission: The Remarkable Story of Bangladesh's in National COVID-19 Response	Dr. Mst. Shabnam Mostari
	104	Cutaneous Electrical Nerve Stimulation with Low Voltage Current to Reduce Muscle Pain	Maliha Rahman
	106	Telemedicine an emerging technology to provide evidence-based care: Lessons Learned during COVID and beyond	Dr. Mst. Shabnam Mostari
	1131	Fourth Industrial Revolution and Beyond	Mr. Safayet Hossain
	118	A Novel Application for Rapid Diagnosis and Triage of Stroke Patients in Bangladesh	Mobin Ibne Mokbul
	163	A Novel Design and Analysis of a 28 GHz 5G Wearable Antenna for Body Area Networks in Smart Medical Application	Dr. Mohammad Monirujjaman Khan

Session 8: 04 Nov 2022 (Friday); 2:30pm to 5:00pm

Venue: EC Meeting Room, 2nd Floor, Main building

Domain	Power and Energy		
Session Chair	Dr. Md. Faruk Hossain		
Session Co-Chair	Dr. Mizanur Rahman		
2:30pm ~ 5:00 pm	ID	Title	Author Name
	1045	Fast development of own natural gas resource holds key to resolve current energy shortfall in Bangladesh	Dr. Badrul Imam
	1107	Sustainable Growth of Bangladesh Power Sector and Role of Renewable Energies- Challenges and Prospects	Engr. Shahriar Ahmed Chowdhury
	1122	Human reliability analysis to support risk-informed decision-making for small modular reactors	Engr. Tanvir Hasan Talash
	26	Challenges for Unlocking Natural Gas Hydrate Prospect in Bangladesh	Md. Mehedi Hasan
	62	Gravitational Electromagnetic Power Generation Model	Md. Nazmussakib Seeum
	65	Implementation of Solar Panels into the Urban Pavements as Sustainable Electric Energy Source in the Urban Areas of Bangladesh	Shaikh Shahrukh Farhan
	166	Digital Disruption of Utilities	Shah Zulfiqar Haider
	100	Evolution of the Solar-Home-System (SHS) In Rural Bangladesh via Empowering an Underprivileged School – A Pilot Project	Fahad Haider
	1134	Sustainable Silicone based Wearable and Flexible Hybrid Electronics: A step towards Circular Economy	Padmanabh P. Pancham

Session 9: 04 Nov 2022 (Friday); 2:30pm to 5:00pm

Venue: Dhaka Center Council Room, 1st Floor, Main Building

Domain	Transportation Engineering and Road Networks, Geo Technologies		
Session Chair	Dr. Md. Mizanur Rahman		
Session Co-Chair	Engr. Amit Kumar Chakrabarty		
2:30pm ~ 5:00 pm	ID	Title	Author Name
	48	Biomass-derived zeolites as adsorbent for water pollution control- A step towards environmental sustainability	Dr. Rajesh Kumar Chanda
	1073	Assessing sedimentological and diagenetic controls on reservoir quality of the fluvio-deltaic Miocene Surma Group deposits based on core sample analysis of Fenchuganj Well 2	M. Mostafizur Rahman
	1074	Reservoir heterogeneity study of fluvio-deltaic Bhuban and Boka Bil formations using outcrop analogue and subsurface data in Surma Basin, Bangladesh	M. Mostafizur Rahman
	1075	Evaluating Bank Erosion Susceptibility of the Ganges-Padma River System in Bangladesh: An Integrated Approach of Geological-Geotechnical and Hydro-Morphological Study	M. Mostafizur Rahman
	88	Parking Demand Management of Core Commercial Agrabad Area in Chattogram City	Md. Shah Jalal Misuk
	219	Connected Vehicle (CV) Technology to Reduce the Impacts of Traffic Incidents	Paraskevi Koliou
	230	Developing an evaluation framework to assess the performance of the expressways in less developed countries	Md. Mamunur Rashid
	1016	Quality Assesment Of Recycled Aggregate Produced From Demolished Highway Culverts	Md. Rokunuzzaman

Common Session 2: 5 Nov 2022 – Saturday (10:00 am ~11:00 am)**Venue: IEB Council Room, 1st Floor, Main Building**

Keynote 3

Time	Venue 1 (IEB Council Room)
10:00 am ~ 10:40 am	Keynote Speech 3 at Council Room (Prof. Dr. Satya Prasad Mazumdar)
10:40 am ~ 11:00 am	Tea Break

Special Session 10: 05 Nov 2022 (Saturday); 11:00am to 1:20pm

Venue: IEB Council Room, 1st Floor, Main Building

Domain	Meet Our Top Industry Leaders		
Session Chair	Prof. Dr. Shaikh Anwarul Fattah		
Session Co-Chair	Mr. Sufi Faruq		
11:00am ~ 1:20 pm	ID	Title	Author Name
	1132	Progress of BTRC for future development of communication in Bangladesh	Mr. Shyam Sunder Sikder
	1133	Power and Energy Policy Aiming 4IR	Engr. Md. Mahbubur Rahman
	1108	Role of Nuclear Energy for Sustainable Energy Transition and 4th Industrial Revolution - Bangladesh Perspective	Mr. Mohammad Shawkat Akbar
	1086	LGED: Working for Successive Growth to Achieve Vision 2041	Engr. Sheikh Md. Mohsin
	1125	Fourth Industrial Revolution: Perspective Bangladesh. The prerequisite of education and research in implementation.	Engr. Delowar Hossain Mozumdar

Session 11: 05 Nov 2022 (Saturday); 11:00am to 1:20pm

Venue: Conference Hall, 3rd Floor, Main Building

Domain	Civil and Environmental Engineering, 3D Printing		
Session Chair	Dr. Tanveer Ferdous Saeed		
Session Co-Chair	Engr. Sheikh Tajul Islam Tuhin		
11:00am ~ 1:20 pm	ID	Title	Author Name
	1099	Steel bridge without coating and the evaluation of its rust state by AI	Dr. Eiki Yamaguchi
	225	Stay in Place 3D-Printed Formwork for Construction Projects	Md. Shah Alam
	212	Challenges to achieve 1.5 degrees and business from emission reduction for Bangladesh	Shah Zulfiqar Haider
	253	First report of stem canker of Albizia procera (Roxb.) caused in mono and mixed plantation forest in Bangladesh	Mandira Sen
	1001	Technological barriers at institutional level in conserving urban green space and implementation of policies: A study on Chattogram City, Bangladesh	Nobonita Sarker
	1056	Tourism with Tradition (Technical Upgradation of Traditional mud house)	Nowreen Islam
	1062	Effective Design of Wind Turbine Grounding at Low resistivity Soil to Minimize Grounding Potential Rise due to Lightning	Dr. Md. Raju Ahmed
	1093	Mechanical Characterization of PET (Polyethylene Terephthalate) Bottles Randomly Collected from South-Western Part of Jashore District, Bangladesh	Mollah Rahman Shaibur

Session 12: 05 Nov 2022 (Saturday); 11:00am to 1:20pm

Venue: ERC Hall, 2nd Floor, Main Building

Domain	Digital Transformation		
Session Chair	Engr. Md. Shahab Uddin		
Session Co-Chair	Ms. Samshad Nowreen		
11:00am ~ 1:20 pm	ID	Title	Author Name
	1061	Research Based Tertiary Education Model: Connectivity to 4IR	Dr. Md. Iqbal Mahmud
	1069	Exploring Low-income Women's Perception about Paratransit Service Quality in Dhaka City by Discrete Choice Model	Dr. Farzana Rahman
	1028	Transforming Governance For Smart Bangladesh: Leveraging The Fourth Industrial Revolution	Abu Saleh Md. Mahfuzul Alam
	1040	A Road Map towards Smart Design and Vetting, Effective Licensing and supervision of Works	Asiful Islam Bhuiyan
	1044	Driving Forces to Raise Awareness About Fourth Industrial Revolution: Pathways to Developing Nations	Sazu Sardar
	1087	Towards Developed from Developing Nations : Projects, Synergy and Strategy	Monzur Sadeque
	1060	Collaborative governance for organizational coordination in implementing Mass Rapid Transit infrastructure in South Asia: Dhaka case study	Salma Khuky
	1019	Approaching towards Smart City - Vision of Bangladesh2041	Ms Sarah Ahsin

Session 13: 05 Nov 2022 (Saturday); 11:00am to 1:20pm

Venue: Seminar Room, 1st Floor, IEB Old Building

Domain	FinTech and Applied Science		
Session Chair	Engr. Abu Taleb Dolon		
Session Co-Chair	Dr. Md. Tarek Hossain		
11:00am ~ 1:20 pm	ID	Title	Author Name
	1103	Future of Fourth Industrial Revolution in Financial Sector of Bangladesh	Mr. Md. Abdul Qaium Khan
	1104	QR payments can help Bangladesh leapfrog into a cashless society	Mr. Shahzada Redwan
	13	FinTech Credit for CMSMEs in Bangladesh: An Exploratory Study	Jewel Kumar Roy
	57	Introducing digital finance system for Empowering Underprivileged Women of Dhaka City	Khaled Bin Yousuf
	183	EEF/ESF Financing in Bangladesh: Prospects and challenges	Md. Abdul Halim
	115	Accessible Technology for Persons with Disabilities- Indicator of Smart Bangladesh	Ashiqur Rahman Amit
	39	Quantitative Risk Assessment Of Lpg Storage Tank Using Bayesian Approach	Ifat Sharmin
	1009	A Comprehensive Study On Lower Earth Orbit (Leo) Satellite: Bangladesh Perspective	Md. Mizanul Hoque

Session 14: 05 Nov 2022 (Saturday); 11:00am to 1:20pm

Venue: Lab 1, 1st Floor, Engineering Staff College

Domain	Nanotechnology and Material Science, Textile Engineering		
Session Chair	Dr. Md. Ashraful Hoque		
Session Co-Chair	Dr. Muktadir Billah		
11:00am ~ 1:20 pm	ID	Title	Author Name
	1049	Smart Bangladesh Through Nanotechnology in 4IR Era	Dr. Al-Nakib Chowdhury
	1124	Polymeric nanocarriers for ophthalmic drug delivery	Dr. Muhammad Tarik Arafat
	1047	Microwave Assisted One pot Biginelli Condensation, Characterization, In Silico ADMET with Molecular Docking and Molecular Dynamic Analysis of Some Synthesized Compounds	Sharif Neaza
	1055	The technological development of graphene-reinforced ceramic composites: a review	Subhro Roy
	128	Devising a Vibration-Based Fault Detection System for Textile Machinery	Md. Harunur Rashid Bhuiya
	153	Devising a Shade Variation Detection System for Fabric Inspection in Textile Industry	Faria Tashnim Mazumder
	1127	Automatic Ductile Iron production by pressure pour furnace	Md. Iqbal Hossain
	1005	Exploration of the Factors and Challenges of Entrepreneurship Skill Development in the Fashion Design Industry of Emerging Bangladesh.	Dr. Suborna Sarkar Nawadir

Session 15: 05 Nov 2022 (Saturday); 11:00am to 1:20pm

Venue: Lab 2, 1st Floor, Engineering Staff College

Domain	Power and Energy		
Session Chair	Dr. Md. Maniruzzaman		
Session Co-Chair	Engr. Shahriar Ahmed Chowdhury		
11:00am ~ 1:20 pm	ID	Title	Author Name
	1120	Electric Grid Trends: Decarbonization, Data Integration, and Smart Grids	Dr. Alexander Anderson
	86	Numerical Analysis of Coal-Biomass Co-combustion and Associated Emissions Characteristics of Coal-fired Thermal Power Plants in Bangladesh	Mahmudul Firoz
	213	A New Dynamic Approach For Bryophyllum Pinnatum's Power Generation Using Silver Nanoparticles	Md. Rabiul Alam
	227	A quantum chemical insight of charge transfer excited-states in the donar/acceptor interface of organic solar cells	Md. Khorshed Alam
	262	Design of a nonlinear global integral terminal sliding mode controller based on a new switching law for DC-DC boost converter by using Fuel Cell	Farhana Akter
	1072	Assessing Hydrocarbon Potential in the Footwall Block of Faulted Anticlines: A Case Study from Rashidpur Gas Field, Surma Basin, Bangladesh	M. Mostafizur Rahman
	112	An Investigation into Crude Oil Price Movement using Artificial Neural Network	Anik Das
	1137	A New Synthesis Process of Borophene By Electrochemical Exfoliation	Engr. Kamal Uddin

Session 16: 05 Nov 2022 (Saturday); 11:00am to 1:20pm

Venue: Lab 3, 1st Floor, Engineering Staff College

Domain	Biomedical Engineering and Life Science		
Session Chair	Dr. Moshiul Hoque		
Session Co-Chair	Dr. Mostafizur Rahman		
11:00am ~ 1:20 pm	ID	Title	Author Name
	1098	Deep Learning Applications for Automatic Medical Image Analysis to support Telemedicine in 4IR	Dr. Celia Shahnaz
	273	Detection Of Covid-19 And Grading The Severity Of Lungs Involvement Using Ai To Optimize The Treatment Process Time	Mohammad Morshed
	1066	Finite Element Analysis of Cervical Spinal Injury of Construction Workers in Bangladesh to Predict Level of Prompt Response For Fracture	Dr. Tanvir Mustafy
	1083	Sustainable Synthesis of Hydrogel Scaffolds for Tissue Engineering and Regenerative Medicine	Dr. Sumon Ganguli
	182	IoT Based Health Monitoring System In The Context Of Remote Area	Mohammad Kamal Hossain Foraji
	1089	Application of Metaverse in 4IR to Boost Digital Healthcare	Nawrin Tasnim
	1091	In-silico investigations on the anticancer activity of selected 2-aryloxazoline derivatives against breast cancer	Ashutosh Nath
	266	A Revised U-Net Architecture for the Precise Diagnosis of Corona Virus Disease from CT Images	Md. Farukuzzaman Faruk

Session 17: 05 Nov 2022 (Saturday); 11:00am to 1:20pm

Venue: EC Meeting Room, 2nd Floor, Main Building

Domain	Agro Tech and Agro Economy		
Session Chair	Dr. Mahbubur Rahman		
Session Co-Chair	Dr. Forkan Sarker		
11:00am ~ 1:20 pm	ID	Title	Author Name
	1095	Use of Jute Geotextiles in Civil Engineering Applications	Dr. Abdul Jabbar Khan
	1088	Introducing a Shift in Bangladeshi Bioscience Paradigm Enroute to Achieving Bangladesh Delta Plan	Dr. Mamun Al Mahtab
	40	Crop Images Classification Using Convolutional Neural Network	Mohammad Ashik Alahe
	97	Muzzle-Based Cattle Identification Using Artificial Intelligence (AI) For Livestock Insurance In Bangladesh	Sefayet Khan
	122	An automated tool for detecting leaf diseases of rice.	Shezan Al-Mahmud
	170	Smart Agriculture in the Context of Fourth Industrial Revolution: Opportunities and Challenges for Bangladesh: A Qualitative Approach	Dr. Md. Shawan Uddin
	174	Devising a Long-Range Soil Monitoring System for Jute and Cotton Cultivation	Umama Tasnim Tanisha
	1090	Biosensor for early-stage cancer detection	Sudip Saha
	186	Innovation-led Productivity Growth in Jute Industry for Middle Income Trap Avoidance in Bangladesh	Dr. Rashid

Session 18: 05 Nov 2022 (Saturday); 11:00am to 1:20pm

Venue: Dhaka Center Council Room, 1st Floor, Main Building

Domain	Autonomous Vehicles		
Session Chair	Dr. Kaushik Deb		
Session Co-Chair	Dr. Md. Arifur Rahman		
11:00am ~ 1:20pm	ID	Title	Author Name
	1801	Condition Monitoring of Electric Motors in Electrified Transportation System	Dr. Adil Usman
	173	A novel approach to mitigate road traffic congestion based on trip sharing in Bangladesh	Pritam Khan Boni
	17	Vehicle Detection and Classification Using Deep Learning Approach	Md. Abu Sayem
	19	Automatic Digital Car Parking Control System with Empty Slot Detection	Md. Siddiqur Rahamn
	68	Monocular Vision based Multi Parameter Road Traffic Data Sensing in Low-Power Distributed AIoT Node	Abu Anas Shuvom
	210	Automatic Car Parking Space Detection System	Md. Mahmudul Hassan
	231	Appraising vehicle-to-everything (V2X) communication using a new millimetre-wave 5G antenna	Dr. Nicolette Formosa
	232	Examining Parking Choices of Connected and Autonomous Vehicles	Mohit Kumar Singh

Common Session 3: 5 Nov 2022 – Saturday (1:20pm ~ 3:00pm)**Venue: IEB Council Room, 1st Floor, Main Building**

Keynote 4

Time	Venue: IEB Council Room
1:20 pm ~ 2:20 pm	Lunch and Prayer Break
2:20 pm ~ 3:00 pm	Keynote Speech 4 at IEB Council Room, Prof. Dr. Md. Saifur Rahman, 2022 IEEE President Elect

Session 19: 05 Nov 2022 (Saturday); 3:00pm to 5:00pm

Venue: IEB Council Room, 1st Floor, Main Building

Domain	Climate Change, Mitigation and Adaptation		
Session Chair	Dr. Anwar Hossain Bhuiyan		
Session Co-Chair	Dr. Rajesh Kumar Chanda		
3:00pm ~ 5:00 pm	ID	Title	Author Name
	56	Future Changes in thermal bioclimatic indicators over Bangladesh using bias-corrected CMIP6 models	Mohammad Kamruzzaman
	143	Clinical Waste Management during COVID-19; A Case Study in Dinajpur.	Md. Belal Hossain
	147	Climate Change Adaptation Measures For Water Resources In Bangladesh	Dr. Md. Lutfor Rahman, Peng, PMP
	149	Climate Change Adaptation With The Nature Based Solutions	Dr. Md. Lutfor Rahman, Peng, PMP
	233	A Descriptive Study of Khulna City's Battery Waste Management Practice	Mamun Mahmud
	1043	Study on Groundwater Level Fluctuations in Chapai Nawabgonj due to Rainfall influence	Md. Jahangir Alam
	1067	Tackling Climate Change Effects and Sustainable Tourism Products and Service Development through Innovation in Bangladesh	Samshad Nowreen
	207	Software Defined Radio (SDR) for Disaster Effectuated Area and Remote Services	A. K. M. Muzahidul Islam

Session 20: 05 Nov 2022 (Saturday); 3:00pm to 5:00pm

Venue: Conference Hall, 3rd Floor, Main Building

Domain	Agro Tech and Life Science		
Session Chair	Dr. Tofazzal Islam		
Session Co-Chair	Dr. Kamrul Hasan Sajib		
3:00pm ~ 5:00pm	ID	Title	Author Name
	1803	The Future of Agriculture: Artificial Intelligence, Internet of Things, and Robotics	Dr. Karlisa Priandana
	263	Detection and Classification of Autism by Using a Machine Learning Approach Based on Convolutional Neural Network. ABSTRACT	Md. Naimur Rahman
	264	Integrating Digital Health in Rapid Management of Stroke Patients in Bangladesh	Mobin Ibne Mokbul
	1063	Crop and Fertilizer Recommendation System for Android Using Machine Learning	Pintu Chandra Shill
	175	IoT Based Smart Agriculture System in the Context of Bangladesh	Mohammad Kamal Hossain Foraji
	1092	Soil Salinity and Biodiversity as affected by Shrimp Culture in the Coastal District Bagerhat, Bangladesh	Mollah Rahman Shaibur
	1021	Agro 4.0: Smart Supply Chain Traceability In Bangladesh	Abu Saleh Md. Mahfuzul Alam
	1064	Smart IoT Based Agriculture Soil Nutrient And Fertilizer Monitoring System	Md. Delwar Hossain

Session 21: 05 Nov 2022 (Saturday); 3:00pm to 5:00pm

Venue: ERC Hall, 2nd Floor, Main Building

Domain	AI and Machine Learning		
Session Chair	Dr. Mohammad Shamsul Arefin		
Session Co-Chair	Dr. Alam Hossain		
3:00pm ~ 5:00pm	ID	Title	Author Name
	198	M-FNDNet: Fake News Detection Network using a Transformer-based Multilingual Masked Language Model (XML-R)	Dr. Moshiul Haque
	20	Image-Based Automatic Price Calculation of Packaged Product to Guide Visually Impaired People	Rakibuzzaman
	43	AI-Based Water Saturation Models and Variable Selection for Gas Resource Assessment Using Dynamic Log Data	Dr. Mohammad Islam Miah
	150	Bangla Speech Recognition Using Explainable AI	Md. Rashedul Hasan Safa
	248	Keyword Prediction of a Sentence Based on a Recurrent Neural Network Approach	Md. Rakib Hossain
	258	BornomalaDB: A Complete Database for Recognition of Bengali Handwritten Characters Utilizing a Low-Cost Convolutional Neural Network	Md. Azmain Yakin Srizon
	1054	High accurate deep learning model for estimating traffic data from video data.	Bowan Cai
	1065	Moment Capacity Prediction to Prevent Failure of Bolts at Critical Joint of Flush End Plate Connections Based on Machine Learning Algorithms	Dr. Tanvir Mustafy

Session 22: 05 Nov 2022 (Saturday); 3:00pm to 5:00pm

Venue: Seminar Room, 1st Floor, IEB Old Building

Domain	Applied Science and Emerging Technologies, Chemical Engineering		
Session Chair	Dr. Badrul Imam		
Session Co-Chair	Dr. Tofayel Ahmed		
3:00pm ~ 5:00pm	ID	Title	Author Name
	1096	Sludge and drained wastewater treatment employing normal, bioenergy-producing natural technologies in Bangladesh	Dr. Tanveer Saeed
	73	Determination of the phyto-reduction efficiencies of Schumannianthus dichotomus in a vertical subsurface flow constructed wetland system.	Md. Alinur Rahman
	16	ASSESSMENT OF LIQUEFACTION POTENTIAL: A CASE STUDY OF KHULNA-BAGERHAT REGION	Mahabub Sadiq
	228	Thermodynamic analysis of adsorption cooling system using activated carbon/CO ₂ pair. (Poster)	Fozle Rabbi
	240	Early-time tracer signal in single well tracer test for nuclear waste repository characterization	Shyamal Karmakar
	18	Chemical Management and Safety Measures for Sustainable Industrial Development in Bangladesh	Md. Enamul Haque
	58	Role of some aza-type macrocyclic chelators as antimicrobial agents	Dr. Tapashi Ghosh Roy
	191	Removal of Emerging Contaminants from Urban Water: Different Fenton Processes and their Effectiveness	Dr. Yunus Ahmed

Session 23: 05 Nov 2022 (Saturday); 3:00pm to 5:00pm

Venue: Lab 1, 1st Floor, Engineering Staff College

Domain	Nanotechnology and Material Science		
Session Chair	Dr. A.F.M Saiful Amin		
Session Co-Chair	Dr. Khorshed Alam		
3:00pm ~ 5:00 pm	ID	Title	Author Name
	1106	Exploring Nanotechnology Research in Bangladesh for Environmental Remediation	Dr. Mohammad Abdul Basith
	160	Design and Preparation of Low-cost Digitalized Deposition Techniques for Fabrication of Metal-oxide Semiconductor Materials	Dr. Md. Faruk Hossain
	53	Application of nanotechnology in environmental remediation	Md. Aminul Islam
	171	Synthesis Of La Doped Bifeo3 Nanoparticles To Investigate The Photocatalytic Degradation Of Levofloxacin	Vincent Titas Rozario
	185	Adsorption cooling system- an emerging technology towards a low carbon society	Kutub Uddin
	268	Nano-engineered modification of jute fibre: transforming a sustainable material into mechanical product	Dr. Forkan Sarker
	1003	Removal of Pb(II) from wastewater using raw carbon and activated carbon of Mahogany fruit shell	Md. Hasan Mahmud
	1017	The Use of Plasmonic Metal Nanoparticles to Enhance the Opto-Electronic Performance Levels of Solar Cells	Dr. Mustafa Habib Chowdhury

Session 24: 05 Nov 2022 (Saturday); 3:00pm to 5:00pm

Venue: Lab 2, 1st Floor, Engineering Staff College

Domain	Biomedical Engineering and Life Science		
Session Chair	Dr. Muhammad Mahfuzul Islam		
Session Co-Chair	Dr. Md. Rafizul Islam		
3:00pm ~ 5:00pm	ID	Title	Author Name
	1110	Automatic COVID-19 Diagnosis: Innovative 4IR Technologies for Smart Healthcare	Dr. Shaikh Anwarul Fattah
	1097	4IR in Biomedical Engineering - Innovation Highlights from the mHealth Research Lab	Dr. Taufiq Hasan
	172	Feature Extraction and Classification of Magnetic Resonance Images for Brain Tumor Detection	Md. Maniruzzaman
	1084	Oral Green Synthesis of Silver Nanoparticles (AgNPs) for Biomedical Application	Dr. Sumon Ganguli
	190	Elucidation of lysosomal cathepsins in bovine leukocytes during maternal recognition period of pregnancy	Dr. Md. Abdus Shabur Talukder
	203	Cell-free DNA as a novel diagnostic biomarker for parasite infections in dog	Dr. Shirin Akter
	209	Binge Eating and Depression of University Students in Relation to Sex and Socio-economic Status	Najnin Saker
	226	Screening of uropathogens from patients with urinary tract infections using chromogenic media and their antibiogram study	Md. Hakimul Haque

Session 25: 05 Nov 2022 (Saturday); 3:00pm to 5:00pm

Venue: Lab 3, 1st Floor, Engineering Staff College

Domain	IoT, Robotics and Mechatronics		
Session Chair	Dr. Sobhan Mia		
Session Co-Chair	Engr. Khan Muhammad Kaisar		
3:00pm ~ 5:00pm	ID	Title	Author Name
	1105	Vision-based Fine-grained Sports Actions Classification	Dr. Kaushik Deb
	111	Prohori: An IoT-Based Remote Cowshed Monitoring System	Md. Shakil Anwar
	25	A Proposed Model for Efficient Energy Management of IoT Enabled Solar Powered Smart Homes	Nahid-ur Rahman Chowdhury
	66	IOT based Early Warning System to Monitor Water Level and Flood movement to reduce loss & damages due to flood disasters in the Northern parts of Bangladesh.	Syed Zharif Uddin Ahmed
	74	Smart Water Quality Monitoring System Based on Internet of Things (IoT)	Md. Naimur Rahman
	275	Development of Flying robot;A new multivectoral method of EAD thrust	Md. Rabiul Alam
	1042	An IoT-Based Environment Pollution Monitoring System For The Smart City	Fatima Ara
	37	IoT Cap and shoe for blind people with monitoring system	Nishat Vasker
	216	IoT, Li-Fi, Text Message and Speech Recognition Integrated Digital Display to Collect, Control, Monitor and Display Integrated Sensors and Remotely Controlled Vehicles Information Wirelessly.	Abdullah All Mamun Anik

Session 26: 05 Nov 2022 (Saturday); 3:00pm to 5:00pm

Venue: EC Meeting Room, 2nd Floor, Main Building

Domain	Communications and EEE, 5G and Wireless Communications		
Session Chair	Dr. Celia Shahnaz		
Session Co-Chair	Dr. Mohammad Sarwar Morshed		
3:00pm ~ 5:00pm	ID	Title	Author Name
	1119	LiWGAN: A light Method to Improve the Performance of Generative Adversarial Network	Dr. Norliza Mohd Noor
	1080	Future impact of NSA 5G in Bangladesh	Pranto Halder
	29	Management of Bandwidth Allocation in Gigabit Passive Optical Network for Ad-hoc Traffic.	Md. Hayder Ali
	59	Efficient Detection and optimization of overloaded server	Md. Omar Faruk
	92	Design of a Sustainable Energy-Efficient HVAC System: Utilizing Green Building Technology	Mahmudul Firoz
	257	The Strategies for Control of Regenerative Braking in Electric Vehicles by Using Fuzzy Logic	Md. Rakib Hossain
	1085	A Critical Study of Electrical Services of Building in Bangladesh National Building Code.	Asiful Islam Bhuiyan
	87	Spectrum Sensing in Cognitive radio networks.	Sanchayan Barua

Session 27: 05 Nov 2022 (Saturday); 3:00pm to 5:00pm

Venue: Dhaka Center Council Room, 1st Floor, Main Building

Domain	Biomedical Engineering and Life Science		
Session Chair	Dr. Raju Ahmed		
Session Co-Chair	Dr. Debu Kumar Bhattacharya		
3:00pm ~ 5:00pm	ID	Title	Author Name
	205	A Traffic Priority Sensitive MAC Protocol for WBANs to Monitor Patients' Emergency	Dr. Shah Murtuza Rashid Al Masud
	61	Comparative Analysis of Various Methods for Breast Cancer Detection	Senjuti Rahman
	77	Machine Learning Based Depression Screening Tool From EEG Data to Aid Clinicians	Dr. Khondaker Abdullah Al Mamun
	129	Phacoemulsification using rotating Needle (Yousuf's Needle) - A newer cheaper technique (PhYN Technology) for cataract surgery.	Mohammad Abu Yousuf Talukder
	238	Study of Molecular transport through single nanopore in the lipid membranes by electroporation using COMSOL simulation	Shovon Saha
	247	A Stacking Ensemble Learning Based Fine-Tuned Transfer Learning Model for Multi-Class Skin Lesion Types Classification	S. M. Mehedy Hasan
	249	Various Approaches for Classification of Chronic Kidney Disease	Senjuti Rahman
	251	Early Diagnosis of Schizophrenia from brain fMRI using Deep learning-based CNN models	Md. Nazmul Hasan

Common Session 4: 5 Nov 2022 – Saturday (5:00pm ~ 9:00pm)

Venue: IEB Auditorium

Closing Ceremony

Time	Venue: IEB Auditorium
5:00 pm ~ 6:00 pm	Tea Break and Maghrib Prayer
6:00 pm ~ 7:00 pm	Industrial Panel Discussion
7:00 pm ~ 8:00 pm	Closing Ceremony
8:00 pm ~ 9:00 pm	Conference Dinner