

4th International Conference on Electrical Information and Communication Technology
(EICT 2019)
(20-22 December 2019, KUET, Khulna, Bangladesh)
Conference Program

Program Highlights				
December 19, 2019 (Thursday)				
3:00 PM – 5:00 PM	Kit Distribution to Authors & Participants			
Day 1: December 20, 2019 (Friday)				
07:45 AM – 09:30 AM	Registration & Kit Distribution, SWC, KUET			
09:30 AM – 10:30 AM	Inauguration Ceremony			
10:30 AM – 11:00 AM	Session for Sponsors			
11:00 AM – 11:15 AM	Refreshment			
11:15 AM – 11:50 AM	Keynote Session–I			
11:50 AM – 12:25 PM	Keynote Session–II			
12:25 PM – 01:00 PM	Keynote Session–III			
01:00 PM – 02:30 PM	Prayer & Lunch Break			
02:30 PM – 03:45 PM	Parallel Technical Session A			
	D1A1	D1A2	D1A3	D1A4
03:45 PM – 04:00 PM	Prayer & Tea Break			
04:00 PM – 05:15 PM	Parallel Technical Session B			
	D1B1	D1B2	D1B3	D1B4
05:15 PM – 06:00 PM	Prayer Break			
06:00 PM – 07:15 PM	IEEE BDS Activity Workshop: Prof. Dr. Celia Shahnaz			
End of Day 1				
Day 2: December 21, 2019 (Saturday)				
08:45 AM – 10:00 AM	Parallel Technical Session A			
	D2A1	D2A2	D2A3	D2A4
10:00 AM – 11:00 AM	Poster Session P			
11:00 AM – 11:15 AM	Tea Break			
11:15 AM – 11:50 AM	Keynote Session–IV			
11:50 AM – 12:25 PM	Keynote Session–V			
12:25 PM – 12:50 PM	Keynote Session–VI			
12:50 PM – 01:25 PM	Parallel Technical Talk T			
	D2T1		D2T2	
	IEEE Technical Talk Prof. Dr. Celia Shahnaz, Chair IEEE BDS		EICT 2019 – Industry-University Collaboration Activity Workshop Prof. Dr. Md. Nurunnabi Mollah	

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01:25 PM – 02:30 PM	Prayer & Lunch Break			
02:30 PM – 03:45 PM	Parallel Technical Session B			
	D2B1	D2B2	D2B3	D2B4
03:45 PM – 04:15 PM	Prayer & Tea Break			
04:15 PM – 05:30 PM	Parallel Technical Session C			
	D2C1	D2C2	D2C3	D2C4
05:30 PM – 06:00 PM	Break			
06:00 PM – 10:00 PM	Closing Ceremony & Conference Dinner			
End of Day 2				
Day 3: December 22, 2019 (Sunday)				
08:30 AM – 05:00 PM	Sight-Seeing Tour			
End of Day 3				

Keynote Sessions	
Keynote Session–I	
Date: December 20, 2019 Time: 11:15 AM – 11:50 AM Title: Power Electronics – Challenges and Trends Speaker: Prof. Dr. Muhammad H. Rashid , Florida Polytechnic University, USA	Venue: SWC KUET
Keynote Session–II	
Date: December 20, 2019 Time: 11:50 AM – 12:25 PM Title: A Frontier in Communication Systems Research: Underwater Wireless Optical Communication Systems Speaker: Prof. Dr. Masanori Hanawa , University of Yamanashi, Japan	Venue: SWC KUET
Keynote Session–III	
Date: December 20, 2019 Time: 12:25 PM – 01:00 PM Title: Germanium-Silicon Alloys – New Materials for Microbolometers Speaker: Prof. Dr. Mukti M Rana , Delaware State University, USA	Venue: SWC KUET
Keynote Session–IV	
Date: December 21, 2019 Time: 11:15 AM – 11:50 AM Title: New Pedagogy in STEM Education for Developing Nations Speaker: Dr. Nemai Chandra Karmakar , Monash University, Australia	Venue: ECE 203

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Keynote Session–V
<p>Date: December 21, 2019 Time: 11:50 AM – 12:25 PM Venue: ECE 203 Title: Modeling the Spatio-temporal Characteristics of 1D and 2D Biosignals in Feature Space for Automatic Disease Detection Speaker: Prof. Dr. Shaikh Anowarul Fattah, Bangladesh University of Engineering and Technology, Bangladesh</p>
Keynote Session–VI
<p>Date: December 21, 2019, Time: 12:25 PM – 12:50 PM Venue: ECE 203 Title: Decoding Imagined 3D Arm Movement Trajectory from EEG Signal Speaker: Dr. Nazmul Siddique, Ulster University, United Kingdom</p>

Day 1: Parallel Technical Session A (D1A1) December 20, 2019		
Venue : CSE 201		Time: 2:30 PM – 3:45 PM
Session Title: Artificial Intelligence, Computer Networks and Security		
D1A1 - 1	82	A Technique to Reconstruct Wavelet-Based Watermark Immune Against Salt & Pepper Noise Md. Siddiqur Rahman Tanveer, Kazi Md Rokibul Alam, Md. Al-Mamun Akash, and Yasuhiko Morimoto
D1A1 - 2	104	ANFIS based Anti-Spoofing Method using Trust Management for GPS Sharmin Siddika, Sm Rakibul Hasan Remu, S M Salim Reza, Dilshad Ara Hossain, Md Murshedul Arifeen, and Afida Ayob
D1A1 - 3	257	A Noble Approach for Better Training with Neuro-Genetic System Using Apical Dominance Based Genetic Algorithm Imran Khan Tutul, Sayeed Islam, Md. Abul Kalam, and Md. Billal Hossain
D1A1 - 4	291	A Comparative Analysis of Routing Protocols using 3D Graph for Flying Ad hoc Networks Ashiqur Rahman and Jannatul Robaiat Mou
D1A1 - 5	297	Privacy Preserving Data Mining Using Non-Negative Matrix Factorization and Singular Value Decomposition Afsana Afrin, Mahit Kumar Paul, and A H M Sarowar Sattar
Day 1: Parallel Technical Session A (D1A2) December 20, 2019		
Venue : CSE 202		Time: 2:30 PM – 3:45 PM
Session Title: Signal Processing, Multimedia and Embedded Systems		

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D1A2 - 1	22	Prototype of a Force-Sensitive Smart Toothbrush Md. Akhtaruzzaman
D1A2 - 2	53	Real Time Hand Gesture Recognition by Skin Color Detection for American Sign Language Shomi Khan, M. Elieas Ali, Sree Sourav Das, and Md Mohsinur Rahman
D1A2 - 3	166	IoT Based Crowd Congestion and Stampede Avoidance in Hajj Using Wemos D1 with Machine Learning Approach Saiful Islam, Abdullahil kafi, Mohammad Zahedul Islam, Naeemul Islam, and Mohammad Noman Ullah
D1A2 - 4	207	Design and Implementation of an Autonomous Wheelchair Md. Anowar Hossain, Md. Fazlul Karim Khondakar, Md. Hasib Sarowar, Md. Jasim Uddin Qureshi
D1A2 - 5	238	Design and Implementation of High Performance Parallel CRC Architecture for Advanced Data Communication Md. Mashrur Arifin, Md. Tariq Hasan, Md. Tarikul Islam, Md. Almahmud Hasan, and Himadri Shekhar Mondal

Day 1: Parallel Technical Session A (D1A3)
December 20, 2019

Venue : CSE 302

Time: 2:30 PM – 3:45 PM

Session Title: Circuits, Power Electronics and Drives

D1A3 - 1	33	Replacing Copper Winding to Aluminium Winding of Refrigerator Compressor Motor for Cost Saving and Performance Analysis Using ANSYS Electronics Desktop Md Monirul Islam, Md Nazmul Islam, and Md Abu Taleb
D1A3 - 2	41	Performance Analysis of a Single Neuron based Adaptive PID and Conventional PI Controller based PMBLDC Motor Drive Md. Belal Hossen and Bashudeb Chandra Ghosh
D1A3 - 3	107	Automatic Product 3D Parameters and Volume Detection and Slide Force Separation with Feedback Control System Md. Mostafizur Rahman, Akash Shingha Bappy, Md Mostafizur Rahman Komol, and Amit Kumer Podder
D1A3 - 4	136	The Cardiac Disease Predictor: IoT and ML Driven Healthcare System Shaira Tabassum, Md. Ittihad Uz Zaman, Md. Sabbir Ullah, Ashikur Rahaman, Samsun Nahar, and A.K.M. Muzahidul Islam
D1A3 - 5	214	Performance Comparison of Five and Six Phase Induction Motors Operating under Normal and Faulty Conditions Bashudeb Chandra Ghosh, Md. Habibullah, and Md. Ershad Ali

Day 1: Parallel Technical Session A (D1A4)
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Venue : ECE 203		Time: 2:30 PM – 3:45 PM
Session Title: Communications and Optoelectronics		
D1A4 - 1	101	Performance Investigation of Robust Cylindrical Antenna Array Beamformer in Appearance of Look Direction Mismatch Md. Yeakub Ali, Sarkar Marshia Hossain, Md. Selim Hossain, and Md. Farhamdur Reza
D1A4 - 2	144	A Low SAR In-Body Antenna for Wireless Monitoring Purpose of Pacemaker System Shamim Ahmad, Raja Rashidul Hasan, Rakibul Hasan, Md. Abdullah Al Rakib, Md. Abid Hasan, and Md. Zubayar
D1A4 - 3	197	Robust Hexagonal Antenna Array with Optimal Diagonal Loading in the Presence of Steering Angle Disparity Md. Yeakub Ali, Md. Selim Hossain, and Md. Farhamdur Reza
D2A4 - 4	288	Device-to-Device Communication with Weather Considered Combined Mechanism of Millimeter Wave and Microwave Band Abdullah Al Rafi Fahim and Mst. Fateha Samad
D1A4 - 5	374	Investigation into The RADAR Performance for Smart Border Management Shakil Rana Sweet and Nurunnabi Mollah
Day 1: Parallel Technical Session B (D1B1) December 20, 2019		
Venue : CSE 201		Time: 04:00 PM – 5:15PM
Session Title: Materials and Nanotechnology		
D1B1 - 1	115	Structural and Electronic Properties of B ₈ , VB ₈ , CrB ₈ , and MnB ₈ Nanoclusters: A DFT Study Hamidur Rahman, Aymaan Fyroz, Md. Rakib Hossain, and Tahmina Ferdous
D1B1 - 2	220	Comparative Study on the Performance of 3D DMTG and SMTG III-VON MOSFETs Md. Shafiul Islam, Fatema-Tuz-Zohura, Muhammad Mainul Islam, and Md. Rafiqul Islam
D1B1 - 3	293	Channel layer-dependent optimization of on-state current and subthreshold swing of MoS ₂ TFET Shakil Mahmud Boby, Shaela Sharmin and Md. Rafiqul Islam
D1B1 - 4	295	Electrostatics of Double Channel Bipolar FET Md. Saddam Hossain Razo and Mohammad Quamruzzaman
D1B1 - 5	322	Effect of growth temperature on the structural and optical properties of CdS:O thin films for CdTe solar cells Nipu Kumar Das, Joyprokash Chakrabartty, Syed Farid Uddin Farhad, Mahmud Abdul Matin Bhuiyan, and Nowshad Amin

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Day 1: Parallel Technical Session B (D1B2) December 20, 2019		
Venue : CSE 202		Time: 04:00 PM – 5:15PM
Session Title: Power System and Renewable Energy		
D1B2 - 1	83	Impact Analysis of Large Number of Non-Linear Lighting Loads on Power Quality in Distribution Network S M Salam, M. Iftekher Uddin, and M. Rifat Bin Moinuddin
D1B2 - 2	147	Dispatched Power and Unbalanced Operation of a Three- Phase NPC Based Double-Stage Grid Connected PV System Md. Mizanur Rahman, Shafayet Hossain and Sifat Rezwan
D1B2 - 3	231	Design and Simulation of A Small Wind Turbine Blade with Qblade and Validation with MATLAB Md. Robiul Islam, Labid Bin Bashar, and Nazmus Sowad Rafi
D1B2 - 4	249	Transient Effect of a Plug-in Electric Vehicle in a Small-scale Microgrid Akramul Haque and Nur Mohammad
D1B2 - 5	269	A Second Order High Performance Resonant Controller for Single Phase Islanded Microgrid Md. Masudur Rahman, Shuvra Prokash Biswas, Md. Kamal Hosain, and Md. Rafiqul Islam Sheikh
Day 1: Parallel Technical Session B (D1B3) December 20, 2019		
Venue : CSE 302		Time: 04:00 PM – 5:15PM
Session Title: Knowledge and Data Engineering		
D1B3 - 1	30	A Comparison of Logistic Regression and Linear Discriminant Analysis in Predicting of Female Students Attrition from School in Bangladesh Mohammad Nayeem Hasan
D1B3 - 2	155	Extracting Severe Negative Sentence Pattern from Bangla Data via Long Short-term Memory Neural Network Abdul Hasib Uddin, Sumit Kumar Dam, and Abu Shamim Mohammad Arif
D1B3 - 3	195	Opinion Mining from Bangla and Phonetic Bangla Reviews Using Vectorization Methods Fabliha Haque, Md. Motaleb Hossen Manik, and M.M.A. Hashem
D1B3 - 4	201	Stock Price Prediction: A Comparative Study between Traditional Statistical Approach and Machine Learning Approach Indronil Bhattacharjee and Pryonti Bhattacharja

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D1B3 - 5	226	Emotion Detection from Bangla Text Corpus using Naïve Bayes Classifier Sara Azmin and Kingshuk Dhar
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Day 1: Parallel Technical Session B (D1B4)
December 20, 2019

Venue : ECE 203

Time: 04:00 PM – 5:15PM

Session Title: Biomedical Engineering

D1B4 - 1	01	Design and Simulation of a Compact Bow-tie Antenna for Cancer Detection and Treatment Antora Hossain and Md. Kamal Hosain
D1B4 - 2	10	Knee Joint Kinesiology: A Study on Human Knee Joint Mechanics Md. Akhtaruzzaman, Amir A. Shafie, Md. Raisuddin Khan, and Md. Mozasser Rahman
D1B4 - 3	18	Estimation of Phylogenetic Tree using Gene Sequencing Data S M Rafiuddin
D1B4 - 4	27	Extraction of Heart Rate from PPG Signal: A Machine Learning Approach using Decision Tree Regression Algorithm Shikder Shafiul Bashar, Md. Sazal Miah, A.H.M. Zaidul Karim, and Md. Abdullah Al Mahmud
D1B4 - 5	49	Prediction of Cancer Using Logistic Regression, K-Star and J48 algorithm Shanjida Khan Maliha, Tajul Islam, Simanta Kumar Ghosh, Helal Ahmed, Md. Rafsun Jony Mollick, and Romana Rahman Ema

Day 2: Parallel Technical Session A (D2A1)
December 21, 2019

Venue : CSE 201

Time: 08:45 AM – 10:00 AM

Session Title : Materials and Nanotechnology

D2A1 - 1	12	Structural and Optical Characterization of Tin (Sn) Doped Zinc Sulfide (ZnS) Thin Film Md. Abu Sayeed, Mohd. Rezaul Hasan, Hasan Khaled Rouf, K.M.A. Hussain
D2A1 - 2	135	Simulation Study on Superconducting Antenna for THz Radiation Raahima Khatun-E- Zannat, Md. Azizul Ibn Nasim, Sumaia Fatema, Md. Rashed Hasan, and A.K.M. Ehtesanul Islam
D2A1 - 3	390	Characterization of Intrinsic and Doped ZnO Thin-Films Deposited by RF Magnetron Sputtering for Chalcogenide Based Solar Cell Applications A.K.S. Gupta, E.M.K.I. Ahamed, M. Quamruzzaman, M.A. Matin, K.S. Rahaman, and N. Amin

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D2A1 - 4	398	Phonon Properties of Armchair and Zigzag Edged GaN Nanoribbon A.S.M. Jannatul Islam, Md. Sherajul Islam, and Ashraful G. Bhuiyan
Day 2: Parallel Technical Session A (D2A2) December 21, 2019		
Venue : CSE 202		Time: 08:45 AM – 10:00 AM
Session Title : Power System and Renewable Energy		
D2A2 - 1	292	Solar, Fuel Cell and Battery based Hybrid Energy Solution for Residential Appliances Sahdev Chandra Swarnakar, Amit Kumer Podder, and Md. Tariquzzaman
D2A2 - 2	329	Time Reduction of Deep Cycle Lead Acid Battery Negative Plate Curing Process by Changing Curing Parameters Abdul Fattah, Md. Abul Kashem, and Md. Jahidul Islam
D2A2 - 3	359	Thickness and Doping Optimization of CdS/CIGS P-i-N Photovoltaic Cell: Envisioned for Enhanced Conversion Efficiency Md. Manzurul Hasan, Nahid A. Jahan, and M. Mofazzal Hossain
D2A2 - 4	364	An Active Inductor Based Quadrature-VCO in 90nm Process for IEEE 802.11b Applications Md. Julficker Ali, Abdur Rahman Abdullah, Bidduth Biswas, Md. Maidul Islam, Omar Faruqe, Ashrafun Naher Pinky, and Md. Tawfiq Amin
D2A2 - 5	391	Bangladesh Power System Peak Demand Shaving through Demand Side Management of the Battery Operated Easy Bike Load Md Rezaul Awal, A K M Nazrul Islam, and Md. Ziaur Rahman Khan
Day 2: Parallel Technical Session A (D2A3) December 21, 2019		
Venue : CSE 302		Time: 08:45 AM – 10:00 AM
Session Title : Artificial Intelligence, Computer Networks and Security		
D2A3 - 1	202	A New Re-clustering Algorithm for Improving Quality of Services of Wireless Sensor Networks Md. Rakibul Hassan, Monir Hossen, Amiotosh Roy Akash, and Md. Imran Hossain
D2A3 - 2	243	A New Hybrid Approach For Privacy Preserving Data Mining Using Matrix Decomposition Technique Md. Mehedi Hasan, Sabbir Hossain, Mahit Kumar Paul, and AHM Sarowar Sattar
D2A3 - 3	358	G-TBSA: A Generalized Lightweight Security Algorithm for IoT Sharif Faisal Ahmed, Md. Rahimul Islam, Tushar Deb Nath, Bilkis Jamal Ferdosi, and A S M Touhidul Hasan

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D2A3 - 4	367	Bangla Compound Character Recognition by Combining Deep Convolutional Neural Network with Bidirectional Long Short-Term Memory Md. Jahid Hasan, Md. Ferdous Wahid, and Md. Shahin Alom
D2A3 - 5	372	Efficient two stage approach to detect face liveness: Motion based and Deep learning based Md. Mehedi Hasan, Md. Salah Uddin Yusuf, Tanbin Islam Rohan and Shidhartho Roy

Day 2: Parallel Technical Session A (D2A4)
December 21, 2019

Venue : ECE 203

Time: 08:45 AM – 10:00 AM

Session Title : Biomedical Engineering

D2A4 – 1	125	Finite Element Analysis of Thrombosis Considering Windkessel Effect Abu Syed Sajib, Kazi Tanvir Islam, Mohammad Nooruddin, Swarnali Roy
D2A4 - 2	228	Automatic Identification of Arrhythmia from ECG Using AlexNet Convolutional Neural Network Fazla Rabbi Mashrur, Amit Dutta Roy, and Dabasish Kumar Saha
D2A4 - 3	250	Processing of Motor Imagery EEG Signals for Controlling the Opening and the Closing of Artificial Hand Md. Abu Shahid Chowdhury and Dabasish Kumar Saha
D2A4 – 4	268	Optic Disc Segmentation using Superpixel based Features and Random Forest Classifier Md. Saifullah Siddiquee and Naqib Sad Pathan
D2A4 – 5	280	Optimization of Sleep Stage Classification using Single-Channel EEG Signals Md. Abdur Rahman, Md. Abul Hossain, Md. Raihan Kabir, Masrur Hossain Sani, Abdullah-Al- Mamun, and Md. Abdul Awal

Day 2: Poster Session P (D2P)
December 21, 2019

Venue : Balcony of Library Building 2nd Floor (Block A)

Time: 10:00 AM – 11:00 AM

Session Title : Poster Session

D2P – T11	173	Prediction of Heart Disease Using Multi-Layer Perceptron Neural Network and Support Vector Machine Md. Nahiduzzaman, Md. Julker Nayeem, Md. Toukir Ahmed, and Md. Shahid Uz Zaman
D2P – T12	283	Transfer Learning Based Plant Diseases Detection Using ResNet50 Ishrat Zahan Mukti and Dipayan Biswas

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D2P – T13	290	A Detailed Study on Bangladeshi Road Sign Detection and Recognition Sk. Md. Masudul Ahsan, Sunanda Das, Shanto Kumar, and Zannati La Tasriba
D2P – T14	326	Computation of Resonant Frequency and Gain from Inset Fed Rectangular Shaped Microstrip Patch Antenna Using Deep Neural Network Shuvro Pal, Methila Biswas Raya, and Khaleda Ali
D2P – T15	330	Invasive Ductal Carcinoma Detection by A Gated Recurrent Unit Network with Self Attention Ananna Biswas, Zabir Al Nazi, Tasnim Azad Abir
D2P – T16	380	A Computer Vision System for Bangladeshi Local Mango Breed Detection using Convolutional Neural Network (CNN) Models A. S. M. Farhan Al Haque, Md. Riazur Rahman, Ahmed Al Marouf, and Md. Abbas Ali Khan
D2P – T21	94	A Low Cost Wireless Braille System Hand Glove for Real Time Communication Hasan U. Zaman, Khalida Sultana Shuravi, Muntasir Kabir Sakib, and Mohammad Wasee Sarwar
D2P – T31	110	Ćuk Derived SC-SL Based High Step Down Hybrid DC-DC Converter Sultanul Arfin, Abdullah Al Mamun, Sharif Nafis Mahmood, and Golam Sarwar
D2P – T32	401	Actuator Based Throttle Control System for Vehicle: An Assistive Vehicle for Partially Disabled People Md. Ashiqur Rahman, Israt Jarin Bristy, and Kawshik Shikder
D2P – T41	68	Design and Analysis of Multiband Antipodal Vivaldi Array Antenna (AVAA) for E-Band Communications Chinmoy Das, Nayan Sarker, and Zayed Mohammad
D2P – T42	74	TDMA Scheduling for Transmitting Partial Data of Non-owner Nodes in Clustering System of Wireless Sensor Networks Saiful Islam, Sm Jahidul Islam, Md. Nurul Islam Khan, Mst. Zannatun Ferdus, Mohammad Abul Kashem, and Md. Saiful Islam
D2P – T43	116	Design of a Concentric Triple-core based Dispersion Compensating Fiber Ramendra Nath Bairagi, Arindam Roy, Suriya Pervin, and Md. Sohel Mahmud Sher
D2P – T44	335	Design and Simulation of an Octafilar Helical Antenna (OHA) with Differential Feeding in Ku band Satellite Applications Ahmad Shah Fuad, Mst. Fateha Samad, and Prosenjit Paul
D2P – T51	160	Three Modified Structures of Photonic Crystal Fiber for Estimation of Sulfuric Acid Concentration with Low Confinement Loss and Negative Dispersion Meher Niger, Tazkia Fairuz Hasin, Mohammed Abu Faiz Nizami, and Muhammad Alam Rafee

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D2P – T52	225	Performance of Short Channel Junctionless Cylindrical Surrounding Gate Si- and III-V based MOSFETs: A Comparative Study Shadia Islam Chowdhury, Nashrah Afroze, Muhammad Mainul Islam, and Md. Rafiqul Islam
D2P – T61	56	Generation of Electricity Using Municipal Wastewater: A Case Study at DND Project S. M. Monjur Siddique, Muhammad Tasneem Alam, and Margub Hasan Tamim
D2P – T62	234	Optimal Power Flow among the Nine Electrical Zones of Bangladesh: 2030 Scenarios Fahmid Mahmud, Riazul Mowla, Tofael Ahmed, and Muhammad Quamruzzaman
D2P – T71	119	Bangla Sign Digits Recognition Using HOG Feature Based Multi-Class Support Vector Machine Md. Mahmudul Hasan and Sk. Mohammad Masudul Ahsan
D2P – T72	237	Detecting Liver Cancer from Online Search Logs Tanvir Anjum Joarder, Boshir Ahmed, and AHM Sarowar Sattar
D2P – T73	356	An assistive HCI system based on block scanning objects using eye blinks Supriya Sarker, Md. Shahradian Mazumder, Md. Sajedur Rahman, and Md. Anayt Rabbi
D2P – T81	59	Cognitive Load Measurement Using Galvanic Skin Response for Listening Tasks Delowar Hossain, Shah Md. Salimullah, Rahi Mahmudi, Syed Md. Neshad Hasan, Erfan Kabir, Abrar Nayeem Chowdhury, and Mahbulul Islam
Day 2: Parallel Technical Session B (D2B1) December 21, 2019		
Venue : CSE 201		Time: 02:30 PM – 03:45 PM
Session Title : Biomedical Engineering		
D2B1 – 1	131	Developing Cost Effective and Automated Saline Flow Rate Controlling System for Medical System Rifath Hasan Rafi, Talukdar Raian Ferdous, Muhammad Muinul Islam, and Zubair Ahmed Ratan
D2B1 – 2	299	Design and Simulation of a Quadrifilar Helical Antenna for Wireless Capsule Endoscopy Tanha Nur and Fateha Samad
D2B1 – 3	316	An Efficient Technique of Hemoglobin Level Screening Using Machine Learning Algorithms Nahiyan Bin Noor, Md. Saeid Anwar, and Mrinmoy Dey

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D2B1 – 4	361	Stress Identification during Sustained Mental Task and Brain Relaxation Modeling with β/α Band Power Ratio Md. Salah Uddin Yusuf, Monira Islam and Shidhartho Roy
D2B1 – 5	388	Design of a surface plasmon resonance based gold coated photonic crystal fiber biosensor Sunjidah Hossain, Md. Rafiqul Islam Sheikh, Mushfica Hossain, Tanvir Ahmed, and Iffat Mahmud

Day 2: Parallel Technical Session B (D2B2)
December 21, 2019

Venue : CSE 202 **Time: 02:30 PM – 03:45 PM**

Session Title : Signal Processing, Multimedia and Embedded Systems

D2B2 - 1	241	Design of IoT Based Multiple Hazards Detection and Alarming System Md. Tarikul Islam Juel, Md. Sajid Ahmed, and Tabassum Islam
D2B2 - 2	245	NDVI Based Change Detection in Sundarban Mangrove Forest Using Remote Sensing Data Sumona Akter Shimu, Mouluda Aktar, Masud Ibn Afjal, Adiba Mahjabin Nitu, Md. Palash Uddin, and Md. Al Mamun
D2B2 - 3	256	Linearly-arranged Concentric Circular Antenna Array using Robust VDL technique Imteaz Rahaman, Md. Selim Hossain, Md. Farhamdur Reza, S.M. Niamat Ullah, and Md. Mamunur Rashid
D2B2 - 4	272	A Machine Learning based Human Activity Recognition during Physical Exercise using Wavelet Packet Transform of PPG and Inertial Sensors data Naqib Sad Pathan, Md. Toky Foysal Talukdar, Muhammad Quamruzzaman and Shaikh Anowarul Fattah
D2B2 - 5	327	Smart Vehicle Protocol Monitoring System by the Internet of Things Platform Imtiaz Mohammad Zahid, Mohammad Hasibul Hasan Hasib, Imteaz Rahaman, Md. Zahidul Islam, and Md. Mamunur Rashid

Day 2: Parallel Technical Session B (D2B3)
December 21, 2019

Venue : CSE 302 **Time: 02:30 PM – 03:45 PM**

Session Title : Circuits, Power Electronics and Drives

D2B3 - 1	222	Different Machine Maintenance Techniques of Rotary Machine and Their Future Scopes: A Review Dip Kumar Saha, Sultan Ahmed, and Md. Shariare Shaurov
D2B3 - 2	255	Study on Institutional Energy Consumption Scenario and Implement an Optimum System Ritwik Chowdhury, Abir Dhar, and Muhammad Ahsan Ullah

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D2B3 - 3	263	Performance Analysis of Switching Techniques in Modular Multilevel Converter Fed Induction Motor Safa Haq, Shuvra Prokash Biswas, Md. Kamal Hosain, and Md. Rafiqul Islam Sheikh
D2B3 - 4	301	A model for compound magnetic levitation using super conductive flux pinning and simple electromagnetic suspension simultaneously Amlan Aunckur Chakraborty and Dip Kumar Saha
D2B3 - 5	355	An Area Efficient Low Phase Noise Charge Pump for PLL Applications in 90nm CMOS Nargis Akhter, Md. Tawfiq Amin and Omar Faruqe

Day 2: Parallel Technical Session B (D2B4)
December 21, 2019

Venue : ECE 203

Time: 02:30 PM – 03:45 PM

Session Title : Communications and Optoelectronics

D2B4 - 1	76	Gold Coated Microstructure Optical Fiber Based Plasmonic Bio-sensor R. Marma and M. A. Mollah
D2B4 - 2	221	Dynamically Changing the Data Transmission Sequence of ONUs to Enhance the QoSs in PON Systems Sujit Basu, Monir Hossen, Shuvashis Saha, and Masanori Hanawa
D2B4 - 3	247	Poisonous Chemical Sensing Using Highly Sensitive Terahertz Photonic Crystal Fiber Sensor Syed Shoaib Mahmud, Md Tanvirul Islam, and Syed Mohammad Atiqullah
D2B4 - 4	271	Highly Sensitive Low Loss Dual-Core Gold Coated Photonic Crystal Fiber Biosensor Based on Surface Plasmon Resonance Md. Salman Sayed Sujan, Md. Yeakub Ali, Md. Aslam Mollah, and Md. Nazmus Sakib
D2B4 - 5	365	Enhancement of Physical Layer Security over Generalized Nakagami- <i>m</i> Fading Multicast Channel S. Shabab, A. S. M. Badrudduza, and M. K. Kundu

Day 2: Parallel Technical Session C (D2C1)
December 21, 2019

Venue : CSE 201

Time: 04:15 PM – 05:30 PM

Session Title : Artificial Intelligence, Computer Networks and Security

D2C1 - 1	328	ANN Based Discrimination of Inrush and Fault Currents in Three Phase Power Transformer using Statistical Approaches Md. Shahinul Islam and Md. Monirul Kabir
D2C1 - 2	346	Behavior of NAPT Middleware in an SDN Environment Md Fahad Monir, Ryhan Uddin, and Dan Pan

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D2C1 – 3	350	Tree Based EM-Prim's Algorithm For Energy Efficient Networking Md. Asif Mahmud Tusher Siddique, Nusrath Jahan Happy, Rashedul Kabir, Abdus Sattar Milton, and Md. Mohaimenul Hossain
D2C1 – 4	354	Word Sense Disambiguation by Context Detection Mohammad Marufur Rahman, Saeed Anwar Khan, and K. M. Azharul Hasan
D2C1 – 5	357	Performance Evaluation of Fuzzy Association Rule Mining Algorithms Tasnia Rahman, Mir Md. Jahangir Kabir, Monika Kabir

Day 2: Parallel Technical Session C (D2C2)
December 21, 2019

Venue : CSE 202

Time: 04:15 PM – 05:30 PM

Session Title : Biomedical Engineering

D2C2 - 1	377	Prottoy: A Smart Phone Based Mobile Application to Detect Autism of Children in Bangladesh Md. Shahriare Satu, Md. Saikat Azad, Md. Fardin Haque, Syed Khalid Imtiaz, Tania Akter, Lipika Barua, Mamunur Rashid, Tanjir Rashid Soron, and Khondaker Abdullah Al Mamun
D2C2 - 2	392	Optimization of Daily Physical Activity Recognition with Feature Selection Abdullah-Al-Mamun, Md Abdul Awal, Md Khaled Hasan, Md. Abdur Rahman, and Mohammad Ashik Alahe
D2C2 - 3	396	A Computer-aided Method for Sleep Stage Scoring Employing Single Channel Electroencephalogram Signal Arpita Das, Tahia Tasnim, Naqib Sad Pathan, Quazi Delwar Hossain
D2C2 - 4	397	Neurodegenerative Disease Classification Using Gait Signal Features and Random Forest Classifier Md. Rafi Islam, Md. Saidur Rahman Pavel, and Sanzida Akter Tunaz

Day 2: Parallel Technical Session C (D2C3)
December 21, 2019

Venue : CSE 302

Time: 04:15 PM – 05:30 PM

Session Title : Signal Processing, Multimedia and Embedded Systems

D2C3 - 1	213	An FPGA based implementation of the Conjugate Gradient Kernels Jannatun Naher, Ahmad Sadman Sakib, Shrikant S. Jadhav, Clay Gloster, and Christopher C. Doss
D2C3 – 2	343	A Recommender System for Music Less Singing Voice Signals G. M. Nazmus Salehin and Md. Shahjahan
D2C3 – 3	348	A Comparative Study of Haar Wavelet-Based Numerical Solution and Exact Solution of Differential Equation Apurba Karmakar

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D2C3 – 4	363	Violence Detection from Videos using HOG Features Sunanda Das, Amlan Sarker, Tareq Mahmud
Day 2: Parallel Technical Session C (D2C4) December 21, 2019		
Venue : ECE 203		Time: 04:15 PM – 05:30 PM
Session Title : Knowledge and Data Engineering		
D2C4 - 1	186	Performance Comparison of Three Classifiers for the Classification of Breast Cancer Dataset Md. Imran Hossain Showroy, Muhammad Tanveer Islam, Md. Dulal Hossain, and Md. Shakil Ahmed
D2C4 - 2	304	Artificial Prognosis of Cardiac Disease using an NN: A Data-scientific Approach in Outlier Handling Shithi Maitra, Tonmoy Hosain, Abdullah Al-Sakin, and Faisal Muhammad Shah
D2C4 - 3	341	Hybrid Genetic Algorithm for Density-Based Data Clustering Md Sharif Khan, Shakera Chowdhury, Iffat Zerine, and Mozammel H A Khan
D2C4 - 4	371	A Hybrid Kernel Support Vector Machine with Feature Selection for the Diagnosis of Diseases Farjana Akter Tania and Pintu Chandra Shill