

# 21<sup>st</sup> INTERNATIONAL CONFERENCE ON COMPUTER & INFORMATION TECHNOLOGY (ICCIT) 2018

Organized By  
Department of Computer Science and Engineering  
UNITED INTERNATIONAL UNIVERSITY

## CONFERENCE PROGRAM

### Day 1: Friday, 21 December 2018

Time	Events
08:00am	Participants arrive at UIU Campus
08:00am - 08:25am	Registration and Kit Distribution
<b>Inauguration Ceremony</b>	
08:30am - 08:55am	Participants and Guests Take Their Seats
08:55am - 09:00am	Recitation from the Holy Quran
09:00am - 09:05am	Welcome Address by Prof. Dr. Hasnan Ahmed, Pro Vice Chancellor, UIU
09:05am - 09:10am	Speech by Conference General Chair, Prof. Dr. Mohammad S. Alam, Texas A&M University – Kingsville
09:10am - 09:15am	Speech by Prof. Dr. Celia Shahnaz, Chair, IEEE Bangladesh Section
09:20am - 09:25am	Speech by Special Guest, Mr. Hasan Mahmood Raja, Chairman of the Board of Trustees, UIU, ICCIT 2018
09:25am - 09:35am	Speech by the Chief Guest, Professor Abdul Mannan, Chairman, University Grants Commission of Bangladesh
09:35am - 09:45am	Speech by the Chair of the Inauguration Ceremony, Professor Dr. Chowdhury Mofizur Rahman, Vice Chancellor, UIU and Chief Patron, ICCIT 2018
09:45am - 09:55am	Vote of Thanks by Organizing Chair, ICCIT 2018
09:55am - 10:05am	Photo/Media Session
10:05am – 10:30am	Tea Break
10:30am - 12:15pm	<b>Plenary Session</b>  Session Chair: Prof. Dr. Mohammad S. Alam, Texas A&M University-Kingsville, USA  Keynote Speaker: Dr. Mohammed Atiquzzaman, University of Oklahoma Keynote Speaker: Dr. Muhammad H. Rashid, Florida Polytechnic University Invited Speaker: Dr. Mohammed Eunos Ali, Bangladesh University of Engineering and Technology Invited Speaker: Dr. Afzal Hossain, President, Nanova Corporation
12:15pm – 03:00pm	Lunch and Prayer Break
03:00pm – 04:45pm	<b>Technical Session 1A, 1B</b>
04:45pm – 05:15pm	Tea and Prayer Break
05:15pm – 06:45pm	<b>Technical Session 2A, 2B</b>

## Day 2: Saturday, 22 December 2018

Time	Events
08:30am	Reporting at Conference Venue
08:30am - 9:00am	Registration and Kit Distribution
09:00am – 10:30am	<b>Technical Session 3A, 3B</b>
10:30am - 10:45am	Tea Break
10:45am – 12:30pm	<b>Plenary Session</b> Session Chair: Dr. Raqibul Mostafa, United International University Keynote Speaker: Dr. B M A Rahman, City University of London Keynote Speaker: Dr. Saifur Rahman, Virginia Tech Invited Speaker: Shahriar Ahmed Chowdhury, United International University
12:30pm – 1:30pm	<b>Lunch and Prayer Break</b>
01:30pm – 03:15pm	<b>Technical Session 4A, 4B</b>
03:15pm - 03:30pm	Tea Break
03:30pm – 05:00pm	Panel Discussion Session Moderator: Prof. Dr. Hasan Sarwar, United International University
07:00 pm	Gala Dinner, Garlic 'n Ginger Restaurant, Jamuna Future Park, Pragati Avenue, Dhaka

## Day 3: Sunday, 23 December 2018

Time	Events
08:15am - 09:00am	Registration and Kit Distribution
09:00am - 10:30am	<b>Technical Session 5A, 5B</b>
10:30am - 11:15am	Robotics Technology Showcase
11:15am - 11:30am	Tea Break
11:30am - 01:30pm	<b>Parallel Session 6A, 6B</b>
01:30pm - 02:30pm	Lunch

**\* For detail of the technical sessions, please see the Technical Session Assignment**

# Technical Session - I

Friday, 21 December 2018

Time: 03:00pm – 04:45pm

## Session ID: 1A Machine Intelligence

Session Chair:

Venue: Room# 124

Paper ID	Author(s) and Paper Title
7	Bayezid Islam, Firoz Mahmud and Arfat Hossain, Facial Expression Region Segmentation Based Approach to Emotion Recognition Using 2D Gabor Filter and Multiclass Support Vector Machine
194	Mahmudul Hasan Popel , Khan Md. Hasib , Syed Ahsan Habib , Faisal Muhammad Shah , A Hybrid Under-Sampling Method (HUSBoost) to Classify Imbalanced Data
127	Sakifa Aktar, Md. Al Mamun, Md. Ali Hossain, Comparative Study of Multi-View 3D Object Retrieval with Autoencoder & Deep Embedding Network
266	Sheikh Muhammad Saiful Islam , Md Mahedi Hasan, DEEPGONET: Multi-label Prediction of GO Annotation for Protein from Sequence Using Cascaded Convolutional and Recurrent Network
177	Afsana Ahsan Jeny, Masum Shah Junayed, Syeda Tanjila Atik, PassNet – Country Identification by Classifying Passport Cover using Deep Convolutional Neural Networks
32	Chowdhury Mofizur Rahman , Lameya Afroze , Naznin Sultana Refath , Nafin Shawon , Iterative Feature Selection using Information Gain & Naive Bayes for Document Classification
46	Md. Fazla Elahi, Hussain Nyeem and Md. Abdul Wahed , Efficient and Lossless Hiding of Electronic Patient Records in Medical Images

## Session ID: 1B- Algorithms and Systems (AS-I)

Session Chair:

Venue: Room# 126

Paper ID	Author(s) and Paper Title
295	Sabir Ismail , Mohaiminul Islam Bhuiyan , Shibbir Ahmad Osmani , M. A. Alim Mukul , An artificial life simulation to observe DNA sequence repeat pattern
182	Prince Mahmud , Md. Sohel Rana , Kamrul Hasan Talukder , An Efficient Hybrid Exact String Matching Algorithm to Minimize the Number of Attempts and Character Comparisons
89	Nahida Sultana Chowdhury , Rajeev R. Raje , A Holistic Ranking Scheme for Apps
188	Md. Shahidur Rahaman, Nawshin Rashidi Oyshee, Samiul Alim Pratic and Khondaker Abdullah Al Mamun. Development of an Intelligent Platform to Digitize Marriage, Empower Married Couple

	for Life and Family Wellbeing Towards Digital Bangladesh
217	Bilal Ahmed and Muhammad Zeeshan. Effect of Carrier Frequency Offset on the Performance of FBMC and GFDM under Multipath Fading Channels
101	Arman Ibn Shahjahann and M M Shourov Akter. Development technique of NTSC color Gamut more than 107% within Full HD resolution in LED TV display using Quantum dot film based direct type back light structure
163	Tanvir Ahammad, Uzzal Kumar Acharjee and Md. Mahmudul Hasan. Energy-effective service-oriented cloud resource allocation model based on workload prediction

## Technical Session - II

Friday, 21 December 2018

Time: 05:15pm – 06:45pm

<b>Session ID: 2A Network Systems and Security (NSS - I)</b>	
<b>Session Chair:</b>	
<b>Venue: Room# 124</b>	
Paper ID	Author(s) and Paper Title
12	Md. Enamul Haque, SM Zobaed, Muhammad Usama Islam, Faaiza Mohammad Areef, Performance Analysis of Cryptographic Algorithms for Selecting Better Utilization on Resource Constraint Devices
261	SM Zobaed, Md. Enamul Haque, Shahidullah Kaiser, and Razin Farhan Hussain, NoCS2: Topic-Based Clustering of Big Data Text Corpus in the Cloud
133	Kaium Hossain, and Shanto Roy, , A Data Compression and Storage Optimization Framework for IoT Sensor Data in Cloud Storage
164	Tajul Islam , M.M.A Hashem ,Task Scheduling for Big Data Management in Fog Infrastructure
199	Tasbiraha Athaya, Sirajum Munira, Afsana Zaman, Syed Akhter Hossain, Col A B M Humayun Kabir A Proposed Algorithm and Architecture for Automated Meeting Scheduling and Document Management
316	Shamima Akter Proma, Sanchita Sharma, Md. Eftekhari Alam and Mohammed Abdul Kader. Development of a Voice and SMS Controlled Dot Matrix Display Based Smart Noticing System With RF Transceiver and GSM Modem.

**Session ID: 2B Natural Language Processing (NLP-II)****Session Chair****Venue: Room# 126**

Paper ID	Author(s) and Paper Title
178	Rouhan Noor , Kazi Mejbaul Islam , Md. Jakaria Rahimi , Handwritten Bangla Numeral Recognition Using Ensembling of Convolutional Neural Network
228	Hemayet Ahmed Chowdhury , Md. Azizul Haque Imon , Md. Saiful Islam , A Comparative Analysis of Word Embedding Representations in Authorship Attribution of Bengali Literature
83	Saimoom Safayet Akash, Sandip Kabiraz, Sabbir Arif Siddique, Ishteaque Alam, SM Ashraful Islam and Mohammad Nurul Huda. A Real Time Approach for Bangla Text Extraction and Translation from Traffic Sign
37	Porimol Chandro, Mohammad Mahbubur Rahman, Md. Faizul Huq Arif, Md. Saeed Siddik, Mohammad Sayeedur Rahman and Md. Abdur Rahman. Automated Bengali Document Summarization By Collaborating Individual Word & Sentence Scoring
307	Md Ataur Rahman and Dr. Md. Hanif Seddiqui. Comparison of Classical Machine Learning Approaches on Bangla Textual Emotion Analysis
79	Mohammad Masudur Rahman, Md. Faisal Kabir and Mohammad Nurul Huda. A Corpus Based N-gram Hybrid Approach of Bengali to English Machine Translation

**Technical Session - III****Saturday, 22 December 2018**

Time: 09:00am – 10:30am

**Session ID: 3A : ICT and Development (ICTD- I)****Session Chair:****Venue: Room 124**

Paper ID	Author(s) and Paper Title
196	Md. Khaled Amin, Khondaker Sazzadul Karim, Afrina Amin, Jing Hua Li, Preliminary Enquiry into the Adoption Behavior of ICTs Enabled Products and Services at the Bottom of the Pyramid (BOP) in Bangladesh.
4	Mir Sakhawat Hossain, Banrupa Mallik, SALSA is an ICT based educational tool for Astrophysics

	students to study structure and dynamics of Milky Way Galaxy
65	Kazi Masudul Alam, Md. Masum Moral, Kazi Shah Nawaz Ripon, Binayak Ray, Aysha Akther, Applying Online-based Publisher-Subscriber Network to Distribute Notice in Academic Institutions of Bangladesh
302	Md. Ridowan Chowdhury , MD. Razaul Haque Subho , Md. Maruf Rahman , Samiul Islam , Dipankar Chaki , Impact of Fast Food Consumption on Health: A Study on University Students of Bangladesh
245	Sk Al Zaminur Rahman , Kaushik Chandra Mitra , S.M. Mohidul Islam , Soil Classification using Machine Learning Methods and Crop Suggestion Based on Soil Series
66	Orvila Sarker , Mehedi Hasan , N. M. Istiak Chowdhury , A Secure Web Server for E-Banking

### Session ID: 3B Machine Intelligence (MI - II)

Session Chair:

Venue: Room# Room 126

Paper ID	Author(s) and Paper Title
198	Shaily Roy, Samiha Nanjiba, Amitabha Chakrabarty, Bitcoin Price Forecasting Using Time Series Analysis
87	Shaikh Akib Shahriyar, Kazi Md. Rokibul Alam, Sudipta Singha Roy and Yasuhiko Morimoto. An Approach for Multi Label Image Classification Using Single Label Convolutional Neural Network
206	M. Raihan , Muhammad Muinul Islam , Promila Ghosh , Shakil Ahmed Shaj , Mubtasim Rafid Chowdhury, Saikat Mondal, Arun More , A Comprehensive Analysis on Risk Prediction of Acute Coronary Syndrome using Machine Learning Approaches
45	Mifta Sintaha, Moin Mostakim , An Empirical Study and Analysis of the Machine Learning Algorithms Used in Detecting Cyberbullying in Social Media
271	Sourin Dey, Md. Ashraful Alam , Formant Based Bangla Vowel Perceptual Space Classification Using Support Vector Machine and K-Nearest Neighbor Method
306	Samrat Kumar Dey , Ashraf Hossain, Md. Mahbubur Rahman , Implementation of a Web Application to Predict Diabetes Disease: An Approach Using Machine Learning Algorithm

## Technical Session - IV

Saturday, 22 December 2018

Time: 01:45pm – 03:30pm

**Session ID: 4A : Network Systems, Security and Cloud (NSSC-II)**

**Session Chair:**

**Venue: Room 124**

Paper ID	Author(s) and Paper Title
61	Sazzad Hossain Bhuiyan , Md Mahmudul Hasan , <i>Revenue Maximization in Cloud Federation Based on Multi-choice Multidimensional Knapsack Problem</i>
137	Md. Abdul Kaium Khan, Towqir Ahmed Shaem, Mahbubur Rahman, Abdullah Zowad Khan, Mohammad Shah Alamgir, A Portable and Less Time Consuming Wireless Biometric Attendance System for Academic Purpose Using NodeMCU Microcontroller
257	Md. Ashiq Mahmood, Tarique Latif, K.M. Azharul Hasan, Md. Riadul Islam , A Feasible 6 Bit Text Database Compression Scheme with Character Encoding (6BC)
244	Rahat Hossain Faisal, Chandrika Saha, Md. Hasibul Hasan , Palash Kumar Kundu , Power Efficient Distant Controlled Smart Irrigation System for AMAN and BORO Rice
63	Md Mosharaf Hossain , Thomas M. Hines , Sheikh K. Ghafoor , Ryan J. Marshall , Muzakhir S. Amanzholov , Ramakrishnan Kannan , Performance Issues of SYRK implementations in Shared Memory Environments for Edge Cases
304	Ryan Marshall , Sheikh K. Ghafoor , Md. Bulbul Sharif, A System for Performance Porting of Iterative Structured Grid Applications in HPC Environments
116	Joydwip Mohajon, Zakaria Ahammed and Kamrul Hasan Talukder. An Improved Approach in Audio Steganography Using Genetic Algorithm with K-bit Symmetric Security Key

### Session ID: 4B Natural Language Processing (NLP- I)

Session Chair

Venue: Room#126

Paper ID	Author(s) and Paper Title
292	Mozammel Haque , Automatic Keyword Extraction from Bengali Text using Improved RAKE Approach
218	Nahid Hossain , Mohammad Nurul Huda , A Comprehensive Parts of Speech Tagger for Automatically Checked Valid Bengali Sentences
294	Sadidul Islam, Mst. Farhana Sarkar, Towhid Hussain, Md. Mehedi Hasan, Dewan Md Farid and Swakkhar Shatabda , Bangla Sentence Correction Using Deep Neural Network Based Sequence to Sequence Learning
195	Bishwajit Purkaystha , Tapos Datta , Md. Saiful Islam and Marium-E-Jannat, Layered Representation of Bengali Texts in Reduced Dimension Using Deep Feedforward Neural Network for Categorization
209	Shammur Absar Chowdhury , Firoj Alam , Naira Khan , Towards Bangla Named Entity Recognition

57	Avik Sarkar , Md. Sharif Hossen , Automatic Bangla Text Summarization Using Term Frequency and Semantic Similarity Approach
56	Ratul Sikder , Md. Monowar Hossain , F.M. Rahat Hasan Robi , A Noble Analytical Text Summarization Technique For Natural Bengali Language

## Technical Session - V

Sunday, 23 December 2018

Time: 09:00am - 10:30am

<b>Session ID: 5A- Signal and Image Processing Systems (SIPS- I)</b> <b>Session Chair</b> <b>Venue: Room#124</b>	
Paper ID	Author(s) and Paper Title
305	Sagar Dakua, Alamgir Kabir Rusad, Nazmus Sakib, Md. Ahsan-Ul Kabir Shawon, Md Kafiul Islam, Towards Design and Implementation of a Low-cost EMG Signal Recorder for Application in Prosthetic Arm Control for Developing Countries like Bangladesh
247	Mohammad Ali , Al Maruf Hassan , Developing Applications for Voice Enabled IoT Devices to Improve Classroom Activities
120	Saima Shehzadi, Muhammad Zeeshan, Shahzad Amin Sheikh, Multimode Wideband waveform for Software Defined Radio based on hybrid CPM-CDMA.
114	Mohammad Woli Ullah , Mohammad Azazur Rahman , Faisal Shahriar , Zia Uddin Ahmed , Muhammad Mostafa Amir Faisal , Mohammed Jashim Uddin , and Syed Zahidur Rashid , Enlightenment of Saint Martin Island: Underwater Submarine Cable and Its Reliability
221	Mubtasim Rafid Chowdhury , Md. Nurunnabi Mollah , M. Raihan , Abu Shakil Ahmed , Md. Abdul Halim , Md. Shahin Hossain , Designing a Cost Effective Prototype of an Automated Wheelchair Based on EOG (Electrooculography)
92	Kamal Hosen, Biazid Kabir Moghal, A.S.M. Jannatul Islam and Md. Sherajul Islam, Vacancy Induced Electron-Phonon Interaction of Single Layer Graphene

**Session ID: 5B- Data Mining and Machine Learning (DMML- I)**

**Session Chair:**

**Venue: Room#126**



Paper ID	Author(s) and Paper Title
285	Sadia Jahan, Swakkhar Shatabda, and Dewan Md. Farid, Active Learning for Mining Big Data
8	Sibendu Sarker , Wayne Franz , Mir Tafseer Nayeem, Automatic Individual Information Aggregation using Publicly Available Social Media Data
93	Asif Ahmed Anik , Nahin Amin , Rayeesa Jameel , Analyzing Yelp review database using Sentiment Analysis
95	Ashadullah Shawon , Syed Tauhid Zuhori , Firoz Mahmud , Md. Jamil-Ur Rahman , Website Classification Using Word Based Multiple N-Gram Models And Random Search Oriented Feature Parameters
256	<i>Apon Saha , Mezbahun Nabi Tasdid , Md.Riasad Rahman , Mining Semantic Web Based Ontological Data</i>
222	Golam Rabbani , Mohammad Aminul Islam , Muhammad Anwarul Azim , Bangladeshi License Plate Detection and Recognition with Morphological Operation and Convolution Neural Network

## Technical Session - VI

Sunday, 23 December 2018

Time: 10:45am - 12:45pm

**Session ID: 6A Machine Intelligence (MI – III)**

**Session Chair:**

**Venue: Room# 124**

Paper ID	Author(s) and Paper Title
181	Sourajit Saha, Sharif Amit Kamran and Ali Shihab Sabbir, Total Recall: Understanding Traffic Signs using Deep Convolutional Neural Network
242	Arif-Ul-Islam , Shamim Akhter , Orientation Hashcode and Artificial Neural Network Based Combined Approach to Recognize Sign Language
23	Bayezid Islam, N. I. Md. Ashafuddula, Firoz Mahmud , A Machine Learning Approach to Detect Self-Care Problems of Children with Physical and Motor Disability
102	Nishargo Nigar and Mohammed Nazim Uddin. An mHealth Platform using Transfer Learning and Internet of Things to Improve Children's Health Consciousness and Behavior
171	Nafisa Nowshin, Zakia Sultana Ritu and Sabir Ismail. A Crowd-Source Based Corpus on Bangla to English Translation

264	Afsana Khan, Afrida Anzum Aesha, Juthi Sarker Aka, S. M. Faisal Rahman and Md. Jamil-Ur Rahman. An IoT Based Intelligent Fire Evacuation System
197	Atm Golam Bari and Alessio Gaspar. Investigating Relaxed Selection in Test-based Pareto Coevolution
75	Ahmed Abdullah Ibrahim, Carbon Dioxide and Carbon Monoxide Level Detector

<b>Session ID: 6B: Hardware and Embedded Systems (HES - I)</b> <b>Session Chair:</b> <b>Venue: Room # 126</b>	
Paper ID	Author(s) and Paper Title
170	Thajid Ibna Rouf Uday, Nazib Ahmad, Amit Ghosh, Junaed Jahin, Md. Mosfiqur Rahman, Md Ifraham Iqbal, Md. Toriqul Islam, Faizah Farzana, Md. Mizanur Rahman, GMA Ehsan Ur Rahman, Farhana Sharmin Tithi, Design and Implementation of the Next Generation Mars Rover
139	Ryhan Ahmed Tamim, Md. Hadiuzzaman Bappy , Sarfaraz Newaz , Anam Islam , Arjuman Sreashtho, Automatic Document Feeding Scanner: A Low Cost Approach
311	Nishako Chakma , Md Mehedi Farhad , Akib Jayed Islam , Swarup Chakraborty , Md Siddat Bin Nesar , Md Abdul Muktedir , Performance Analysis of a Microstrip Patch Antenna for Satellite Communications at K Band
41	Amdadul Haque , Nazia Hossain , Hedayetul Islam , Reduction of Distribution Transformer Burn in Power Sector Utilities
213	Kamol Sarkar, Dhrubo Ahmad, Suvojit Kumar Singha, and Mohiuddin Ahmad, Design and Implementation of a Noninvasive Blood Glucose Monitoring Device
81	Ashraful Hossain Howlader, Md. Sherajul Islam, A. S. M. Jannatul Islam, A Study on Phonon Transmission of (10,0) Silicon Nanotube with Atomic Vacancies
287	Ashratuz Zavin, Fahim Anzum, S. M. Faisal Rahman, Muhammad Nazrul Islam and Mehreen Hoque. Towards Developing an Intelligent Fire Exit Guidance System Using Informed Search Technique
126	LTE Practical Optimization Achievements on Throughput in Live Cellular Networks, Mohammad Rasool Tanhatalab, Panteleimon Balis, Seyed Majid Jafari Joor Jadeh, Amirhossein Orouji Esfahani and Majid Kooshke Baghi.

