

IEEE ICTP 2015 Technical Program

DAY -1 (Saturday, 26 December 2015)

Inauguration Saturday, 26 December 2015 Venue: IAC, ECE Building		
Time	Event	
09:00AM-10:30AM	Inaugural Speech	
10:30AM-11:00AM	High Tea	
11:00AM-11:40AM	Video Presentation by Sponsors	
11:40AM-01:00PM	Keynote Speech 1	Title: Recent Advances in Optical Processing Based Signal Detection and Tracking Speaker: Prof Mohammad S. Alam
01:00PM-02:30PM	Lunch Break	
02:30PM-03:45PM	Keynote Speech 2	Title: 5G Cellular: Key Enabling Technologies and Research Challenges Speaker: Prof Ekram Hossain
03:45PM-04:00PM	Tea Break	
04:00PM-05:15PM	Keynote Speech 3	Title: Emerging Wireless Communication: Trends, Promises and Challenges Speaker: Prof. Ranjan Gangopadhyay

DAY -2 (Sunday, 27 December 2015)

Session ID: SUND1 Session: Tech Paper-1A Sunday, 9:00 AM – 10:30 AM, 27 December 2015 Venue: Room 706, ECE Building, BUET Session Title: Antenna System Session Chair: Dr. Pran Kanai Saha, BUET		
P-ID	TITLE	AUTHORS
12	Performance Analysis of a Hexagonal Microstrip Antenna for S-band Spectrum Using HFSS	Muhammad Rasheduzzaman, Md Hafiz Al Asad, Md Muhtasim Billah and Mohammed Hossam-E-Haider
13	Parametric Analysis of Pickett Potter Horn Antenna	Zobaer Ahmed, Mohammad Asif Zaman and Lutfu Akter
55	Planar Microstrip Antenna with Dual Stop-Band Functionality	Rezaul Azim, Mohammad Tarqiu Islam, Norbahiah Misran, Mandeep Singh and Mohd Mansor
98	Investigation and Performance Analysis of Z Shaped Microstrip Patch Antenna for Wideband Application	Md.Saddam Hossain, Md.Masud Rana and Md.Shamim Anower
104	Counter Propagation ANN based Massive Adaptive Array Antenna Beamforming for mmWave Communication System	Farhana Akter Sunny, Zamshed Iqbal Chowdhury and M. S. Kaiser
105	Robust Antenna Array Processor in the Presence of Steering Angle Mismatch and Mutual Coupling Effect	Md. Firoj Ali, Dr. Md. Selim Hossain and Md. Mamunnur Rashid

Session ID: SUND2
 Session: Tech Paper-1B
 Sunday, 9:00 AM – 10:30 AM,
 27 December 2015

Venue: Room 729, ECE Building, BUET

Session Title: Communication Systems & Networks

Session Chair: Dr. Rahmatullah Khandoker, Fraunhofer SIT, Germany

P-ID	TITLE	AUTHORS
50	Analytical Evaluation of the Bit Error Rate of a MIMO OFDM Power Line Communication System with Crosstalk due to Mutual Coupling Among the Conductors	Munshi Mahbubur Rahman and S P Majumder
71	Robust Broadband Beamforming for Circular Microphone Array using Constraints	Dr. Md. Selim Hossain, Md. Mamunur Rashid and Md. Firoj Ali
74	Robust 2D Beamforming with Optimal Loading Technique	Md. Mamunur Rashid, Dr. Md. Selim Hossain and Md. Firoj Ali
101	Performance Limitations of a 2×2 MIMO Power Line Communication System Impaired by Non-white Impulsive and Non-Gaussian Power Line Noise	Syeda Manjia Tahsien, Asif Mahmud, Rakibul Islam, Nowrin Jahan and S P Majumder
102	An Adaptive Link Selection Algorithm for Cognitive Cooperative Network Using Modified Bat Algorithm	Nusrat Jahan, Fariha Afsana, Mufti Mahmud and M. Shamim Kaiser
17	VPN Protocols with IPv4-IPv6 Transition Mechanisms - Performance Evaluation on Test-beds	Shaneel Narayan

Tea Break, Sunday, 10:30 AM - 11:00 AM, 27 December 2015

<p align="center">Session ID: SUNK1 Session: 3 Sunday, 11:00 AM – 12:15 PM, 27 December 2015, Venue: Room 706, ECE Building, BUET Session Chair: Dr. Satya Prasad Majumder, BUET</p>	
Keynote Speech 4	<p>Title: The International Year of Light 2015 and Light-based Technologies – An Introspection</p> <p>Speaker : Prof. Bishnu P. Pal</p>

Lunch Break, Sunday, 1:00 PM – 2:30 PM, 27 December 2015

<p align="center">Session ID: SUND3 Session: Tech Paper-2A Sunday, 2:30 PM – 4:00 PM, 27 December 2015 Venue: Room 706, ECE Building, BUET Session Title: Wireless Communication-1 Session Chair: Dr. M.A. Matin, University of Denver, USA</p>		
P-ID	TITLE	AUTHORS
5	Ionospheric Measurements over Bangladesh and Their Significance on Radio Systems Operation	Md Golam Mostafa, Haris Haralambous and Satya Prasad Majumder
35	A New Approach of ZigBee MAC Layer Design Based on Security Enhancement	Md. Jaminul Haque Biddut, Nazrul Islam, Rucksana Saha Sultana, Angona Sarker and Mohammad Motiur Rahman
56	Improvement of Throughput Fairness in IEEE 802.11 Based WLANs Using Successive Interference Cancellation	Md. Sultan Mahmud and Md. Forkan Uddin
63	Interference Mitigation and Capacity Enhancement based on Dynamic Frequency Reuse for Femtocell Networks	Md. Tashikur Rahman, Md. Didarul Alam and Mostafa Zaman Chowdhury
90	Performance Analysis of Cognitive Cooperative Communications for WBAN	Maliha Mahbub, Shaikh Muhammad Rizwan Ali, Zamshed Iqbal, M. Shamim Kaiser and Dr. Md. Shahidul Islam

91	0-3 GHz Spectrum Occupancy Measurement in Bangladesh for Cognitive Radio Purpose	Mijanur Rahaman Palash, Zobaer Ahmed, Md Ibrahim Khalil and Lutfu Akter
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<p align="center">Session ID: SUND4 Session: Tech Paper-2B Sunday, 2:30 PM – 4:00 PM, 27 December 2015 Venue: Room 729, ECE Building Session Title: Photonics and Photonic Devices Session Chair: Dr. Sharif Mohammad Mominuzzaman, BUET</p>		
P-ID	TITLE	AUTHORS
21	Study of Microwave and Optical Properties of a Polymer Electrooptic Modulator	Fariha Tasnim Khan, Sarah Al- Hussaini and M. Shah Alam
27	Intra- and Inter-Wafer Characterization of Waveguide Propagation Loss and Reflectivity	Mohammad Istiaque Reja
49	Investigation of Performance Characteristics of an Al _{0.8} Ga _{0.2} N-delta-GaN QW Laser Considering Structural Parameters	Md. Mobarak Hossain Polash and M. Shah Alam
86	Effect of Lower Index Dielectric Coating on Plasmon Polaritons Guided by Finite Metal Stripes	Md. Shafiqul Islam, Md. Samiul Alam and M. Shah Alam
93	Increased Radiation Absorption in Thermophotovoltaic Quantum Cascade Structures	Sakib Hassan and Muhammad Anisuzzaman Talukder
96	X-ray Sensitivity of Poly(triarylamine) (PTAA)	Naimul Hassan and Shaikh Asif Mahmood

<p align="center">Session ID: SUNT1 Session: Tutorial1 Sunday, 2:30 PM – 4:00 PM, 27 December 2015 Venue: Room 731, ECE Building, BUET Session Chair: Dr. Md. Saiful Islam, BUET</p>	
Tutorial 1	<p>Title: Radio over Fiber Communications (RoF)</p> <p>Speaker : Dr. Mohammad A. Matin</p>

Tea Break, Sunday, 4:00 PM - 4:30 PM, 27 December 2015

Session ID: SUNI1

Session: Invited Speech

Sunday, 4:30 PM – 5:45 PM, 27 Dec 2015,

Venue: Room 706, ECE Building, BUET

Session Chair: Dr. Kaushik Deb, CUET

Invited Speech

Title: Future Internet Including 5G and Beyond

Speaker : Dr. Rahmatullah Khandoker

Session ID: SUNT2

Session: Tutorial-2

Sunday, 4:30 PM – 5:45 PM, 27 Dec 2015,

Venue: Room 729, ECE Building, BUET

Session Chair: Dr. Md. Farhad Hossain, BUET

Tutorial 2

Title: Evolution Towards Green Communication Systems by Energy Harvesting

Speaker : Dr. Md. Jahangir Hossain and Dr. Imtiaz Ahmed

Day-3 (Monday, 28 December 2015)

Session ID: MOND1 Session: Tech Paper 3A Monday, 9:00 AM – 10:30 AM, 28 December 2015 Venue: Room 706, ECE Building, BUET Session Title: Sensors Session Chair: Dr. Farseem Mannan Mohammedy, BUET		
P-ID	TITLE	AUTHORS
7	Design and Development of an Optical Pressure Sensing System using Bellows as Primary Sensor	Nirupama Mandal, Brajesh Kumar and Rajan Sarkar
30	Cross-correlation Based Approach of Underwater Network Cardinality Estimation with Random Placement of Sensors	H. H. Raton, S. A. H Chowdhury, M. J. Rana, M. S. Anower and Shaik Asif Hossain
32	Design and Analysis of a New Photonic Crystal Fiber for Fiber Based Sensor Applications	Russel Reza Mahmud
77	Performance Analysis, Optimization and Structural Modification of Nano-Scale Grating Configuration for Surface Plasmon Polariton Based Sensing	Syeda Lammim Ahad, Ashrarul Haq Sifat and Md. Zahurul Islam
87	Malicious Attack Detection in Underwater Wireless Sensor Network	Muhammad Ahmed, Manjia Tahsien, Mohammed Aseeri and Shamim Kaiser

Session ID: MONT1 Session: Tutorial3 Monday, 9:00 AM – 10:30 AM, 28 December 2015 Venue: Room 729, ECE Building, BUET Session Chair: Dr. Md. Shah Alam, BUET	
Tutorial 3	Title: Specialty Optical Fibers and components for Optical Communication Speaker : Dr. Bishnu P Pal and Hitesh Mehta

Tea Break, Monday, 10:30 AM - 11:00 AM, 28 December 2015

Session ID: MOND2
Session: Tech Paper 3B
Monday, 11:00 AM – 1:00 PM, 28 December 2015
Venue: Room 706, ECE Building, BUET
Session Title: Biomedical Signal Processing
Session Chair: Dr. Md. Kamrul Hasan, BUET

P-ID	TITLE	AUTHORS
11	Dual Tree Complex Wavelet Transform for Sleep State Identification from Single Channel Electroencephalogram	Ahnaf Rashik Hassan and Mohammed Imamul Hassan Bhuiyan
64	Canonnical Correlation Based Impersonation Quality determination Algorithm for Natural Morphed Speech	Md. Mahbub Hasan, Sathi Rani Mitra and Kenbu Teramoto
78	Automatic Feature Selection Based Motor Imagery Movements Detection Scheme from EEG Signals in the Dual Tree Complex Wavelet Transform Domain	Syed Khairul Bashar and Mohammed Imamul Hassan Bhuiyan
80	Multi-Step Level Set method for Segmentation of Overlapping Cervical Cells	Mohammad Haque and Zahidul Islam
38	A Self-Adjusting Lin-Log Active Pixel for Wide Dynamic Range CMOS Image Sensor	Minhaz Ibna Abedin, Md.Akramul Islam and Quazi Delwar Hossain

Session ID: MONT1
Session: Tutorial3 (Continued)
Monday, 11:00 AM – 1:00 PM, 28 December 2015
Venue: Room 729, ECE Building, BUET
Session Chair: Dr. Md. Shah Alam, BUET

Tutorial 3
Title: Specialty Optical Fibers and components for Optical Communication

Speaker : Dr. Bishnu P. Pal and Hitesh Mehta

Lunch Break, Monday, 01:00 PM – 2:30 PM, 28 December 2015

Session ID: MOND3		
Session: 3C		
Monday, 2:30 PM – 4:00 PM, 28 December 2015,		
Venue: Room 706, ECE Building, BUET		
Session Title: Wireless Communications-2		
Session Chair: Dr. Jahangir Hossain, UBC, Canada		
P-ID	TITLE	AUTHORS
97	Bit Error Rate Performance of a Multi-band OFDM UWB RFID System with Reader Receiver Diversity using Maximal Ratio Combiner	Mohammad Mahfujur Rashid and S. P. Majumder
111	RFID-based Disaster Management with Object Detection and Positioning System	M Tanseer Ali, Abu Naser H Mahmood and Tarannum Islam
112	Analytical Evaluation of the Effect of Cross-polarization in a Polarization diversity MIMO Satellite to Ground link	Sharif Sharif and S.P. Majumder
60	On the Accuracy of RF Based Underwater Intruder Tracking Using Wireless Sensor Networks	Musbiha Binte Wali, Md. Farhad Hossain, Kumudu S.Munasinghe and Abbas Jamalipour
85	Reliability and Delay in AUV Navigation Using EM Wave Based Underwater Sensor Network with Shadow Fading	Muhammad Sabbir Alam and Md. Farhad Hossain
18	Analysis of ACO-OFDM, DCO-OFDM and Flip-OFDM for IM/DD Optical-Wireless and Optical-Fiber System	Rizbi Hassan, Fatima Tuz Zafrin Tuli and Shuvashis Saha

Session ID: MOND4

Session: 3D

Monday, 2:30 PM – 4:00 PM, 28 December 2015,

Venue: Room 729, ECE Building, BUET

Session Title: Optical Communication and Photonics

Session Chair: Dr. Muhammad Anisuzzaman Talukder, BUET

P-ID	TITLE	AUTHORS
108	Electrodeposition and Dependency of Optical Properties on Operating Voltage and Bath Temperature of Copper Oxide Thin Films for Photovoltaic Applications	Sheikh Jaber Nurani, Md. Anisul Islam, Abu Sadat Md. Sayem Rahman, Farzana Ferdous and Kazi Md. Shorowordi
1	Ultrashort Soliton Propagation in Multi-clad Optical Fibers with Per Channel Data Rate of 1Tb/s	Mohammad Faisal, Shah Md. Salimullah
28	YANG Modeling of Network Elements for the Management and Monitoring of Elastic Optical Networks	Jobaida Akhtar
82	Effect of Weak Atmospheric Turbulence on the BER Performance of an Optical CDMA FSO Link with Sequence Inverse Keying (SIK) Balanced Photodetector Receiver	A. K. M. Islam and S. P. Majumder
51	Performance Limitations Due to Crosstalk in an Optical Transmission Link over Multi-Core Fiber	Md Hossain Jahangir and Satya Prasad Majumder
23	Photovoltaic Characteristics and Non-idealities of Thin Film Silicon Plasmonic Solar Cell	Fahmida Pervin, Rahnuma Rahman, Md. Sami Ul Islam and Farseeem M. Mohammedy
103	Tuning of Transmission Characteristics of Epsilon-Near-Zero Metamaterials by Controlling Permittivity of Embedded Defects.	Topojit Debnath, Samiul Hoque and Zahurul Islam

Session ID: MONT3

Session: Tutorial4

Monday, 2:30 PM – 4:00 PM, 28 December 2015

Venue: Room 731, ECE Building, BUET

Session Chair: Dr. Mohammed Hossam-e-Haider, MIST

Tutorial 4

Title: Optical Network Planning, Design & Implementation

Speaker : Akter Ul Alam and Sarfuddin Bhuiyan