2012 7th International Conference on Electrical and Computer Engineering

(ICECE 2012)

Dhaka, Bangladesh
20 – 22 December 2012

ICECE 2012 Technical Program

Session: 1A1 Friday (9:00 AM - 10:45 AM), 21 December 2012, Room: Chitra
Bioinformatics and Biometrics
Session Chair: Prof. Somnath Sengupta, IIT Kharagpur, India

TITLE	AUTHOR(S)
APPEARANCE AND SHAPE BASED FACIAL RECOGNITION SYSTEM USING PCA AND HMM	Md. Rabiul Islam, Rizoan Toufiq, and Md. Fayzur Rahman
AN IMPROVED APPROACH TO DEVELOP GLOBAL ALIGNMENT ALGORITHM AND ITS IMPLEMENTATION BY MAKING SOFTWARE FOR MULTIPLE ALIGNMENT, PHYLOGENETIC TREE AND GC CONTENT	Md. Rezaul Karim, Md. Rethwan Kabeer, Abdur Rahman Bin Shahid, Sanjib Biswas, and S. M. Muslem Uddin
2D HUMAN-EAR RECOGNITION USING GEOMETRIC FEATURES	Md. Zahid Hasan Polin, A. N. M. Eanmul Kabir, and Muhammad Sheikh Sadi
AN EFFICIENT APPROACH TO EXTRACT SINGULAR POINTS FOR FINGERPRINT RECOGNITION	Md. Mesbah Uddin Khan and Muhammad Sheikh Sadi
EFFECTIVE PART SELECTION FOR PART-BASED GAIT IDENTIFICATION	Md. Rokanujjaman, Md. Altab Hossain, and Md. Rezaul Islam
HUMAN IDENTIFICATION METHOD USING TIME AND WAVELET DOMAIN FEATURES BASED ON MODIFIED DECG	Shaikh Anowarul Fattah, Celia Shahnaz, Abu Shafin Mohammad Mahdee Jameel, and Rajib Goswami
SPATIAL DOMAIN ENTROPY BASED LOCAL FEATURE EXTRACTION SCHEME FOR FACE RECOGNITION	Shaikh Anowarul Fattah, Md. Shafiqul Islam, and Md. Saiful Islam

Session: 1B1 Friday (9:00 AM - 10:45 AM), 21 December 2012, Room: Titas
Optical Communications
Session Chair: Prof. Utpal Das, IIT Kanpur, India

TITLE	AUTHOR(S)
IMPACT OF INTRA-CHANNEL CROSS-PHASE MODULATION (IXPM) ON HIGH SPEED OPTICAL FIBER TRANSMISSION SYSTEM	Nitu Syed and Mohammad Faisal
ANALYSIS OF A PMD INSENSITIVE POLARIZATION MULTIPLEXED COHERENT OPTICAL OFDM SYSTEM FOR 100 GB/S OPTICAL TRANSMISSION	Rubayet Shafin and Sheikh Abdullah Al Nusayer
A NEW APPROACH OF UNEQUALLY SPACED CHANNEL ALLOCATION FOR FWM CROSSTALK SUPPRESSION IN WDM TRANSMISSION SYSTEM	Ayesha Rouf and Md. Saiful Islam
COMPENSATION OF SBS USING CROSS-PHASE MODULATION IN WDM TRANSMISSION SYSTEM.	Fahmida Hossain Tithi, Md. Saiful Islam, and Satya Prasad Majumder
ANALYSIS AND SIMULATION OF POLARIZATION MODE DISPERSION EFFECTS ON HIGH BIT-RATE FIBER-OPTIC TRANSMISSION SYSTEM.	Rubayet Shafin, Pritam Sen, Saikat Basak, Aynul Islam, S. P. Majumder, and M. S. Islam
ANALYSIS OF POST DETECTION AD-HOC FILTER BASED LOOPBACK WDM-PONS TO ENHANCE THE TOLERANCE AGAINST RAYLEIGH BACKSCATTERING NOISE	Pallab K. Choudhury
MONITORING OF OSNR USING STATISTICAL MOMENTS OF EQUALIZED SIGNAL IN 16-QAM COHERENT OPTICAL RECEIVERS	Md. Saifuddin Faruk

Session: 1C1 Friday (9:00 AM - 10:45 AM), 21 December 2012, Room: Meghna
Appropriate Technologies
Session Chair: Dr. Abdul Hasib Chowdhury, BUET, Bangladesh

TITLE	AUTHOR(S)
AN AUTOMATIC NUMBER PLATE RECOGNITION OF BANGLADESHI VEHICLES	Md. Ruhul Amin, Noor Mohammad, and Md. Abu Naser Bikas
VIDEO SURVEILLANCE IN THE CLOUD-COMPUTING?	David (DJ) Neal and Shawon Rahman
FINITE ELEMENT ANALYSIS OF THERMAL STRESS IN THROUGH-SILICON VIA STRUCTURE	Tanzia Sultana, Md. Nafiul Alam, and Md. Faruque Hossain
DESIGN AND CONSTRUCTION OF AN AUTOMATED BAGGAGE SORTING SYSTEM	Aashique Alam Rezwan, Sabbir Hassan, Pratyasha Prachurja, and Minhajul Anwar
DESIGN AND DEVELOPMENT OF A RELUCTANCE TYPE PRESSURE TRANSMITTER	Subrata Chattopadhyay and Jyotimoy Sarkar
THREE PHASE SMS PREPAID DIGITAL ENERGY METER	Anomadarshi Barua, Nabil Mohammad, and Muhammad Abdullah Arafat

Session: 1D1 Friday (9:00 AM - 10:45 AM), 21 December 2012, Room: Surma
Nanotechnology-1
Session Chair: Prof. Mohammad Jahangir Alam, BUET, Bangladesh

TITLE	AUTHOR(S)
FABRICATION OF A COST EFFECTIVE AUTOMATIC CONTROLLER FOR SPRAY-PYROLYSIS TECHNIQUE TO DEPOSIT THIN FILMS	Md. Abul Munjer, Md. Faruk Hossain, M. H. Rahman, and M. Z. Mahmud
SIDEWALL ROUGHNESS CONTROL IN DEEP REACTIVE ION ETCH PROCESS FOR MICROMACHINED SI DEVICES.	T. M. Fahim Amin, Md. Quamrul Huda, John Tulip, and Wolfgang Jaeger
COMPARATIVE STUDY OF ZNS THIN FILMS GROWN BY CHEMICAL BATH DEPOSITION AND MAGNETRON SPUTTERING	M. A. Islam, M. S. Hossain, M. M. Aliyu, Y. Sulaiman, K. Sopian, and N. Amin
OCCURRENCE OF MULTIPLE EXCITATIONS OF SILICON NANOCRYSTALS DURING ERBIUM SENSITIZATION IN SILICON RICH OXIDE	Md. Quamrul Huda and Samia Subrina
FABRICATION OF TIO_2 NANOTUBE ARRAYS IN ROOM TEMPERATURE BY ANODE OXIDATION METHOD	Md. Faruk Hossain
NANOSTRUCTURED ZnO THIN FILMS BY UNCOVERED HYDROTHERMAL METHOD FOR SOLAR CELL APPLICATION	Md. R. Haque, R. S. Mandal, M. S. Islam, and Md. Faruk Hossain
NITROGEN INCORPORATED FULLERENE (C60) FILMS USING PULSED LASER DEPOSITION FOR OPTOELECTRONIC APPLICATION	Ahmed Zubair, Sharif Mohammad Mominuzzaman, and Tetsuo Soga

Session: 1E1 Friday (9:00 AM - 10:45 AM), 21 December 2012, Room: Nirala
Robotics & Mechatronics
Session Chair: Prof. Bijnan Bandyopadhyay, IIT Bombay, India

TITLE	AUTHOR(S)
INTELLIGENT AUTONOMOUS VEHICLE NAVIGATED BY USING ARTIFICIAL NEURAL NETWORK	Firoz Mahmud
LEAST SQUARES CONDITIONAL DENSITY ESTIMATION IN SEMI-SUPERVISED LEARNING SETTINGS	Rubaiya Rahtin Khan and Masashi Sugiyama
EXTENDED KALMAN FILTER (EKF) AND K-MEANS CLUSTERING APPROACH FOR STATE SPACE DECOMPOSITION OF AUTONOMOUS MOBILE ROBOTS	Md. Nasir Uddin Laskar, Md. Nurul Ahad Tawhid, and Tae Choong Chung

TITLE	AUTHOR(S)
COMMON REGION OF INTEREST GENERATION BETWEEN MOBILE ROBOTS BY COGNITIVE ONTOLOGY	Md. Rokunuzzaman
FABRICATION OF A STAIR CLIMBING VEHICLE FOR INDUSTRIAL AND RESCUE APPLICATION USING APPROPRIATE TECHNOLOGY	Md. Farhad Ismail, Fakhruzzaman Arif, Md. Easir Amin, Joy Mojumdar, and M. A. R. Sarkar
ROBOTIC SYSTEM FOR MAKING EYE CONTACT PRO-ACTIVELY WITH HUMANS	Mohammed Moshiul Hoque and Kaushik Deb
ECLECTIC RULE EXTRACTION FROM NEURAL NETWORKS USING AGGREGATED DECISION TREES	Md. Ridwan Al Iqbal

Tea Break, Friday (4:15 PM - 4:30 PM), 21 December 2012

Session: 1A2 Friday (11:00 AM - 12:30 PM), 21 December 2012, Room: Chitra
Biomedical Engineering-1
Session Chair: Prof. Md. Aynal Haque, BUET, Bangladesh

TITLE	AUTHOR(S)
JOINT SYMBOLIC DYNAMICS AS AN EFFECTIVE APPROACH FOR QUANTIFICATION OF CARDIO-RESPIRATORY INTERACTION IN PATIENTS WITH OBSTRUCTIVE SLEEP APNEA SYNDROME	Muammar Muhammad Kabir, Hany Dimitri, Prashanthan Sanders, Derek Abbott, and Mathias Baumert
DETERMINATION OF THE EFFECT OF HAVING ENERGY DRINKS USING LASER DOPPLER FLOWMETRY	Muhammad Muinul Islam, Md. Bashir Uddin, and Mohiuddin Ahmad
OPTIMIZED MFR & AUTOMATED LOCAL ENTROPY THRESHOLDING FOR RETINAL BLOOD VESSEL EXTRACTION	Saumitra Kumar Kuri, Sanika.S Patankar, and Jayant V. Kulkarni
SUPERIORITY ANALYSIS OF MLMS OVER ADAPTIVE FILTERING METHODS FOR HEARTH ARRHYTHMIAS DETECTION	Md. Imran Khan, Md. Billal Hossain, and A. F. M. Nokib Uddin
PERFORMANCE ANALYSIS OF SINGLE-SITE AND MULTIPLE-SITE DEEP BRAIN STIMULATION IN BASAL GANGLIA FOR PARKINSONS DISEASE	Md. Shamsul Arefin
RETRIEVING AND SMOOTHING FUNDAMENTAL WAVES FROM NOISE CORRUPTED ECG BEAT USING GAUSSIAN FUNCTIONS	Muhammad Abdullah Arafat, Tahmida Binte Mahmud, and Mohammad Saad Billah

Session: 1B2 Friday (11:00 AM - 12:30 PM), 21 December 2012, Room: Titas
Wireless Communications-1
Session Chair: Prof. B. M. Azizur Rahman, City University London, UK

TITLE	AUTHOR(S)
BER PERFORMANCE ANALYSIS OF RAYLEIGH FADING CHANNEL IN AN OUTDOOR ENVIRONMENT WITH MLSE EQUALIZER	Tanvir Ahmed, M. M. Ali, and M. Z. I. Sarkar
OPTIMIZATION OF PATH LOSS FOR OUTDOOR USING PARTICLE SWARM OPTIMIZER AND GENETIC ALGORITHM	Chien-Ching Chiu, Yu-Ting Cheng, and Chai-Wei Chang
ULTRA WIDEBAND OFF-BODY RADIO CHANNEL CHARACTERISATION FOR DIFFERENT ENVIRONMENTS	Qammer H. Abbasi, Mohammad Monirujjaman Khan, Sidrah Liaqat, Akram Alomainy, and Yang Hao
BIT ERROR RATE IMPROVEMENT FOR QPSK MODULATION TECHNIQUE IN A MIMO RAYLEIGH FADING CHANNEL BY MAXIMUM LIKELIHOOD EQUALIZATION	Sabuj Sarkar and Mohammad Shaifur Rahman

TITLE	AUTHOR(S)
POWER AND RATE ALLOCATION TO SECONDARY USERS IN COMPETITIVE COGNITIVE RADIO NETWORKS	S. M. Azharul Karim, A. S. M. Shahriar Haque, and Lutfa Akter
PERFORMANCE ANALYSIS OF A MC-DS-CDMA WIRELESS COMMUNICATION SYSTEM WITH RAKE RECEIVER OVER A RAYLEIGH FADING CHANNEL WITH RECEIVE DIVERSITY	S. D. Paul, S. Asif, and S. P. Majumder

Session: 1C2 Friday (11:00 AM - 12:30 PM), 21 December 2012, Room: Meghna
Power Electronics, Drives and Systems
Session Chair: Prof. Enamul Bashar, BUET, Bangladesh

TITLE	AUTHOR(S)
INACTIVE POWER COMPENSATOR: MODELING AND CONTROL	Sujan Adhikari and Y. K. Rozanov
3 PHASE SWITCH MODE AC VOLTAGE CONTROLLER WITH LOW THD AND HIGH POWER FACTOR	Md. Ashfanoor Kabir and Nazmul Hasan
INPUT SWITCHED SINGLE PHASE BUCK AND BUCK-BOOST AC-DC CONVERTER WITH IMPROVED POWER QUALITY	Mohammed Masum Siraj Khan, Md. Shamsul Arifin, M. Rubaiyat Tanvir Hossain, Md. Ashfanoor Kabir, Amina Hasan Abedin, and Mohammad Ali Choudhury
COMPARISON OF DYNAMIC RESISTANCE ARC FURNACE MODELS FOR FLICKER STUDY	Md. Minarul Islam and A. Hasib Chowdhury
TIE LINE PLANNING USING PROBABILISTIC LOAD MODEL	Somen Baidya, Arman Walid, Nahid-Al-Masood, and A. Hasib Chowdhury
AN APPROACH FOR CLASSIFICATION OF POWER QUALITY DISTURBANCES BASED ON HILBERT HUANG TRANSFORM AND RELEVANCE VECTOR MACHINE	Faeza Hafiz, A. Hasib Chowdhury, and Celia Shahnaz

Session: 1D2 Friday (11:00 AM - 12:30 PM), 21 December 2012, Room: Surma
Nanotechnology-2
Session Chair: Prof. Q. D. M. Khosru, BUET, Bangladesh

TITLE	AUTHOR(S)
THERMAL MANAGEMENT OF 3-D IC USING CARBON NANOTUBE THERMAL VIA	Md. Sharafat Hossain, Khalid Ibne Masood, Anomadarshi Barua, and Samia Subrina
COMPARATIVE STUDY OF CDS-SENSITIZED AND CONVENTIONAL DYE-SENSITIZED SOLAR CELLS	Md. Faruk Hossain and Takakazu Takahashi
DESIGN OF A LOW STANDBY POWER CNFET BASED SRAM CELL	Daud Hasan Emon, Nabil Mohammad, and Sharif Mohammad Mominuzzaman
DRIVE CURRENT IMPROVEMENT IN VERTICAL MOSFETS USING HYDROGEN ANNEAL	M. M. A. Hakim, L. Tan, A. Abuelgasim, C. H. de-Groot, S. Hall, and P. Ashburn
EMPIRICAL PREDICTION OF BANDGAP IN SEMICONDUCTING SINGLE-WALL CARBON NANOTUBES	Md. Shamsul Arefin, G. R. Ahmed Jamal, and Sharif Mohammad Mominuzzaman
ADSORPTION OF ARSENIC III ON MULTI WALL CARBON NANOTUBE	Md. Shamimul Haque Choudhury

Session: 1E2 Friday (11:00 AM - 12:30 PM), 21 December 2012, Room: Nirala
Circuits and Systems
Session Chair: Prof. Kazi Mujibur Rahman, BUET, Bangladesh

TITLE	AUTHOR(S)

TITLE	AUTHOR(S)
AUTOMATED IRRIGATION SYSTEM USING SOLAR POWER	Jia Uddin, S. M. Taslim Reza, Qader Newaz, Jamal Uddin, Touhidul Islam, and Jong-Myon Kim
AUTOMATED FIRE FIGHTING SYSTEM WITH SMOKE AND TEMPERATURE DETECTION	Mohammad Jane Alam Khan, Muhammed Rifat Imam, Jashim Uddin, and M. A. Rashid Sarkar
DESIGN OF PSEUDO-LOGARITHMIC FUNCTION USING OPERATIONAL TRANSCONDUCTANCE AMPLIFIER	Mousumi Bhanja, Rima Chakraborty, and Baidyanath Ray
ELECTRONIC ENERGY METER WITH REMOTE MONITORING AND BILLING SYSTEM	Md. Manirul Islam, Mohiuddin Ahmad, Md. Ajijul Islam, Abu Farzan Mitul, M. F. Malek, and M. A. Rashid
A POLLING BOOTH BASED INTERNET VOTING SCHEME (PIVS) AND ITS ELECTION VERIFIABILITY	Md. Abdul Based
IMPROVED CRITICAL POINT ESTIMATION AND ITS APPLICATION TO TEMPERATURE CONTROL SYSTEM	D. Simhachalam, R. K. Mudi, S. Talukder, and A. Mondal

Lunch & Prayer Break , Friday (12:30 PM - 2:30 PM), 21 December 2012

Session: 1A3 Friday (2:30 PM - 4:15 PM), 21 December 2012, Room: Chitra
Biomedical Engineering-2
Session Chair: Prof. Mohammad S. Alam, University of South Alabama, USA

TITLE	AUTHOR(S)
SIMULATION OF INFORMATION THEORETIC BASIC CONCEPTS IN DNA ANALYSIS	Abdullah Nazib and Mahbubur Rahman
IMPROVING THE DETECTION OF CELL CENTROIDS FROM FLUORESCENCE IMAGES BY ADAPTIVE FILTERING	Md. Khayrul Bashar, Koji Komatsu, Toshihiko Fujimori, and Tetsuya J. Kobayashi
MULTICLASS EPILEPTIC SEIZURE CLASSIFICATION USING TIME-FREQUENCY ANALYSIS OF EEG SIGNALS	Partha Pratim Acharjee and Celia Shahnaz
EXTENDED KALMAN FILTER FOR DOPPLER RADAR CARDIOPULMONARY MONITORING SYSTEM	Mohammad Shaifur Rahman, Md. Mejbaul Haque, Byung-Jun Jang, and Ki-Doo Kim
SPECKLE NOISE MODELING USING THE BESSEL K-FORM PDF	Shahriar Mahmud Kabir and Mohammed Imamul Hassan Bhuiyan
MICROCONTROLLER BASED HEALTH CARE MONITORING SYSTEM USING SENSOR NETWORK	Md. Manirul Islam, Fida Hasan Md. Rafi, Mohiuddin Ahmad, Abu Farzan Mitul, T. M. N. Tunku Mansur, and M. A. Rashid
LOW COST COMPUTER BASED ELECTROCARDIOGRAM MONITORING SYSTEM	Md. Shamsul Arefin and Mohammad Ali Choudhury

Session: 1B3 Friday (2:30 PM - 4:15 PM), 21 December 2012, Room: Titas
Wireless Communications-2
Session Chair: Prof. Chien-Ching Chiu, Tamkang University, Taiwan

TITLE	AUTHOR(S)
COMPARISON OF TH-SS AND DS-SS WITH SLEEPING PROTOCOL FOR LDR-UWB NETWORK	M. A. Khan
COMPARATIVE ANALYSIS THE PERFORMANCE OF AODV, DSDV AND DSR ROUTING PROTOCOLS IN WIRELESS SENSOR NETWORK	Julia Rahman, Md. Al Mehedi Hasan, and Md. Khaled Ben Islam

TITLE	AUTHOR(S)
PERFORMANCE ANALYSIS OF A FREE SPACE OPTICAL LINK USING ALAMOUTI TYPE SPACE TIME BLOCK CODE WITH WEAK TURBULENT CONDITION	M. Shariful Islam and S. P. Majumder
IMPULSIVE NOISE MITIGATION IN WIRELESS COMMUNICATION SYSTEMS USING EMD TECHNIQUE	Salman Habib and Ariful Haque
PERFORMANCE ANALYSIS OF PAPR REDUCTION FOR OFDM-BPSK,-QPSK AND -QAM USING FORWARD ERROR CORRECTING CODE	Mukta Rani Dey and Md. Saiful Islam
FACTOR BASED SUM PRODUCT DECODING IN LOG DOMAIN FOR LOW DENSITY PARITY CHECK CODES	Mohammad Rakibul Islam, Tahmid Rashid, Sami Refayet, Shahriar Arefin Ovee, and Md. Moshiur Rahman Farazi
REDUCTION OF ICI IN OFDM USING WINDOW FUNCTIONS	Md. Al- Mahadi Hasan

Session: 1C3 Friday (2:30 PM - 4:15 PM), 21 December 2012, Room: Meghna
Electrical Machines and High Voltage Engineering
Session Chair: Prof. Mohammad Ali Choudhury, BUET, Bangladesh

TITLE	AUTHOR(S)
EFFECT OF INSULATING OIL DEGRADATION ON POWER TRANSFORMER CAPACITANCE	Salman Habib and Md. Quamrul Ahsan
ANALYSIS OF STARTING AND SYNCHRONIZATION PROCESS FOR LINE START IPM MOTORS	S. F. Rabbi and M. A. Rahman
ARTIFICIAL NEURAL NETWORK BASED SPEED TRACKING OF A FIELD ORIENTED INDUCTION MOTOR DRIVE	Md. Abdur Rafiq, Md. Habibullah, and B. C. Ghosh
CHARACTERIZATION OF SYMMETRICAL ELECTRODE SYSTEM TO ESTIMATE THE DEGREE OF UNIFORMITY UNDER SYMMETRICALLY AND ASYMMETRICALLY APPLIED HIGH VOLTAGE	Muhammad Abdul Goffar Khan, Md. Rabiul Islam, and Rizoan Toufiq
IMPLEMENTATION OF NORMALIZATION COVARIANCE FACTOR CALCULATION TECHNIQUE TO DETECT MECHANICAL DEFORMATION IN POWER TRANSFORMER	Asif Islam, Golam Kafi Mustafa, Md. Mamun Biswas, and Shahidul Islam Khan
DISTRIBUTION TRANSFORMER LIFE OPTIMISATION IN A SMART FEEDER EMBEDDED WITH PHOTOVOLTAIC POWER GENERATION	Syed M. Islam

Session: 1D3 Friday (2:30 PM - 4:15 PM), 21 December 2012, Room: Surma
Photovoltaics
Session Chair: Prof. S. M. Mominuzzaman, BUET, Bangladesh

TITLE	AUTHOR(S)
APPROXIMATION OF CARRIER GENERATION RATE IN COMMON SOLAR CELLS AND STUDIES FOR OPTIMIZATION OF N+P SILICON SOLAR CELL FOR AM1.5G AND AM1.5D	Mokter Mahmud Chowdhury and Bishwajit Debnath
INTERSUBBAND TRANSITION BASED EFFICIENT PHOTOVOLTAIC ENERGY CONVERSION	Maruf Ahmed and Muhammad Anisuzzaman Talukder
A REVISED THEORETICAL MODEL FOR QUANTUM DOT SOLAR CELLS	Mokter Mahmud Chowdhury
EFFECTS OF DOPING OF INTERMEDIATE BAND REGION ON INTERMEDIATE BAND SOLAR CELL CHARACTERISTICS	Urmita Sikder, Rifat-Ul-Ferdous, and Anisul Haque
QUANTUM ELECTRODYNAMIC MODEL OF CARBON NANOTUBE PHOTOVOLTAIC DEVICE TO ASSESS ITS PHOTO ABSORPTION	G. R. Ahmed Jamal, Md. Gaffar, and Asif Al Rashid

PROSPECTS OF NANOTECHNOLOGY FOR HIGH-EFFICIENCY SOLAR CELLS	Achyut K. Dutta
BAND STRUCTURES AND OPTICAL GAIN OF INGAASN/GAASN STRAINED QUANTUM WELLS UNDER ELECTRIC FIELD	WJ Fan

Session: 1E3 Friday (2:30 PM - 4:15 PM), 21 December 2012, Room: Nirala
Engineering Education
Session Chair: Prof. Md. Quamrul Ahsan, BUET, Bangladesh

TITLE	AUTHOR(S)
KNOWLEDGE MINING FOR EFFECTIVE TEACHING AND ENHANCING ENGINEERING EDUCATION	Dewan Md. Farid and Hasan Sarwar
SECURITY CONCERNS FOR WEB-BASED RESEARCH SURVEY	Alemayehu Hailu and Syed (Shawon) Rahman
CHALLENGES OF IMPLEMENTING OUTCOME BASED ENGINEERING EDUCATION IN UNIVERSITIES IN BANGLADESH	M. M. Shahidul Hassan

Tea Break, Friday (4:15 PM - 4:30 PM), 21 December 2012

Plenary Session: Friday (4:30 PM - 6:00 PM), 21 December 2012, Room: Surma & Nirala
Session Chair: Prof. Saiful Islam, BUET, Bangladesh

TITLE	SPEAKER
ADVANCE PHOTONIC DEVICES AND SIGNAL PROCESSING STRATEGIES IN NEXT GENERATION COHERENT OPTICAL FIBER COMMUNICATIONS AND NETWORKS	Prof. Ping-kong Alexander Wai, VP (Research Development), The Hong Kong Polytechnic University, Fellow of IEEE
THE TRANSISTOR IS DEAD; LONG LIVE THE TRANSISTOR?!	Prof. Muhammad Ashraful Alam, Electrical and Computer Engineering, Purdue University, Fellow of IEEE and Fellow of AAAS

Conference Dinner, Friday (7:30 PM - 9:30 PM), 21 December 2012

Session: 2A1 Saturday (9:00 AM - 10:45 AM), 22 December 2012, Room: Chitra
Quantum Structures & Devices
Session Chair: Dr. Achyut Datta, Banpil Photonics Inc., CA, USA

TITLE	AUTHOR(S)
A MATHEMATICAL MODELLING OF DISLOCATIONS REDUCTION IN $In_xGa_{1-x}N$/GaN HETEROEPITAXY USING STEP-GRADED INTERLAYERS	Md. Arafat Hossain, Md. Rafiqul Islam, Md. Mahbub Hasan, A. Yamamoto, and A. Hashimoto
A THEORETICAL APPROACH FOR THE DISLOCATION REDUCTION OF WURTZITE $In_xGa_{1-x}N$/GaN HETEROEPITAXY	Durjoy Dev, Anisul Islam, Md. Rafiqul Islam, Md. Arafat Hossain, and A. Yamamoto
EXPLORING THE ELECTRONIC PROPERTIES OF RELAXED BILAYER NITROGEN-GRAPHENE ALLOY USING DENSITY FUNCTIONAL THEORY	Md. Tanvir Arafin and Saiful Islam

TITLE	AUTHOR(S)
EFFECT OF TEMPERATURE ON QUANTUM CASCADE LASER EMISSION AS A FUNCTION OF CAVITY LENGTH	Md. Shahadat Hasan Sohel, Orchi Hassan, Asif Ahmed, Fariah Hayee, Rafatul Faria, and Muhammad Anisuzzaman Talukder
BIAS-DEPENDENT INTERSUBBAND ELECTROLUMINESCENCE LINEWIDTH OF QUANTUM CASCADE LASERS	Fariah Hayee, Rafatul Faria, Orchi Hassan, Md. Shahadat Hasan Sohel, Asif Ahmed, and Muhammad Anisuzzaman Talukder
BIAS DEPENDENCE OF GAIN SPECTRUM AND OUTPUT EMISSION CHARACTERISTICS OF TWO PHONON RESONANCE DESIGN QUANTUM CASCADE LASER	Orchi Hassan, Rafatul Faria, Fariah Hayee, Md. Shahadat Hasan Sohel, Asif Ahmed, and Muhammad Anisuzzaman Talukder
SHORT PULSE DYNAMICS IN QUANTUM CASCADE LASERS	Asif Ahmed, Orchi Hassan, Md. Shahadat Hasan Sohel, Fariah Hayee, Rafatul Faria, and Muhammad Anisuzzaman Talukder

Session: 2B1 Saturday (9:00 AM - 10:45 AM), 22 December 2012, Room: Titas
Communication Systems
Session Chair: Prof. Md. Saifur Rahman, BUET, Bangladesh

TITLE	AUTHOR(S)
PERFORMANCE ANALYSIS OF ANC BASED MIMO COOPERATIVE RELAYING NETWORK OVER NAKAGAMI-M FADING CHANNEL	M. Shamim Kaiser, Shamim Al Mamun, and Kazi M. Ahmed
DESIGN AND SIMULATION OF A LOW COST THREE BAND MICROSTRIP PATCH ANTENNA FOR THE X-BAND, KU-BAND AND K- BAND APPLICATIONS	M. A. Motin
DESIGN AND IMPLEMENTATION OF DATA STRING TRANSCEIVER USING GNU RADIO	Shaon Ahmed, S. M. Navid Iqbal, Nazmus Sakib, and Md. Rafiqul Islam
COMPARITIVE STUDY ON THE EFFECTS OF XPM WITH SPM & GVD AND SPM WITH CD IN WDM FIBER OPTIC TRANSMISSION SYSTEM	Nasrin Sultana and M. S. Islam
TURBO LIKE MULTI-STAGE THRESHOLD DECODING FOR SELF-ORTHOGONAL CONVOLUTIONAL CODES	Muhammad Ahsan Ullah and Haruo Ogiwara
LDPC CODED FSO COMMUNICATION SYSTEM UNDER STRONG TURBULENT CONDITION	Bobby Barua and S. P. Majumder
BLIND LEVEL DISCRIMINATION CARRIER RECOVERY ALGORITHM FOR 16-QAM OPTICAL COHERENT COMMUNICATION SYSTEM	Md. Ibrahim Khalil, Md. Mosaddek Hossain Adib, Arshad M Chowdhury, Md. Saifuddin Faruk, and Gee-Kung Chang

Session: 2C1 Saturday (9:00 AM - 10:45 AM), 22 December 2012, Room: Meghna
VLSI Design-1
Session Chair: Prof. A. B. M. Harun-ur-Rashid, EEE, BUET, Bangladesh

TITLE	AUTHOR(S)
PARASITE SENSITIVE ANALYSIS FOR KA-BAND LOW-POWER (7.1MW) LOW-NF WIDEBAND AMPLIFIER	Apratim Roy
A 1.2-V 0.09-μM HIGH-GAIN BUFFERED AMPLIFIER FOR 14.2-GHZ SATELLITE APPLICATIONS	Apratim Roy
MULTIPLE STRIP PHOTO MIXING DEMODULATOR FOR 3D IMAGING IMPLEMENTED ON HIGH RESISTIVITY SILICON	Quazi Delwar Hossain, Gian-Franco Dalla Betta, Lucio Pancheri, David Stoppa, and Sagar Kumar Dhar

TITLE	AUTHOR(S)
A HIGH DATA RATE 130NM CMOS IR-UWB TRANSMITTER FOR INTER-CHIP WIRELESS COMMUNICATION	Mohammad Nahidul Karim, S. M. Istiaque Hossain, and Pran Kanai Saha
AN ULTRA WIDEBAND LNA DESIGN AND COMPARISON BETWEEN DIFFERENT CORNER SIMULATION	Md. Asif Mahmood Chowdhury
EFFECTS OF SINTERING TEMPERATURE ON THE MAGNETIC PROPERTIES OF CR SUBSTITUTED MN-ZN FERRITE	F. Alam, H. N. Das, and A. K. M. Akther Hossain
BODY-WEARABLE BEAM STEERING ANTENNA ARRAY FOR 5.2 GHZ WLAN APPLICATIONS	Md. Rashidul Islam and Mohammod Ali

Session: 2D1 Saturday (9:00 AM - 10:45 AM), 22 December 2012, Room: Surma
Information Technology
Session Chair: Prof. Md. Saiful Islam, BUET, Bangladesh

TITLE	AUTHOR(S)
PROTECTION, MOTIVATION, AND DETERRENCE: KEY DRIVERS AND BARRIERS OF ORGANIZATIONAL ADOPTION OF SECURITY PRACTICES	Alemayehu Hailu and Syed (Shawon) Rahman
AN AUTOMATED URBAN TRAFFIC CONTROL SYSTEM FOR HEAVY TRAFFIC CONGESTION	Kamruddin Md. Nur, Mahmud Hasan, and Pranab Chandra Saha
COMBINED DWT-DCT BASED DIGITAL IMAGE WATERMARKING TECHNIQUE FOR COPYRIGHT PROTECTION	Kaushik Deb, Md. Sajib Al-Seraj, Md. Moshiul Hoque, and Md. Iqbal Hasan Sarker
MOVIESWARM: INFORMATION MINING TECHNIQUE FOR MOVIE RECOMMENDATION SYSTEM	Sajal Halder, Md. Samiullah, A. M. Jehad Sarkar, and Young-Koo Lee
DESIGN OF A DOUBLE AES PROCESSOR	Uttam Kumar Roy and Md. Liakot Ali
COMPLETE LEAKAGE PROBABILITY IN FADING CHANNELS WITH THE EFFECT OF ARTIFICIAL NOISE	Kum Lenin Wung and Mohammad Rakibul Islam
RFID BASED E-MONITORING SYSTEM FOR MUNICIPAL SOLID WASTE MANAGEMENT	Liakot Ali, Mahbubul Alam, and Md. Abu Nayeem Redwanur Rahaman

Session: 2E1 Saturday (9:00 AM - 10:45 AM), 22 December 2012, Room: Nirala
Neural Network, Fuzzy Logic, and Multimedia Systems
Session Chair: Prof. Md. Liakot Ali, BUET, Bangladesh

TITLE	AUTHOR(S)
PATTERN MATCHING IN TIME SERIES USING COMBINATION OF NEURAL NETWORK AND RULE BASED APPROACH	Asif Salekin, Md. Mustafizur Rahman, and Shihab Hasan Chowdhury
FUSION OF CHAOTIC ACTIVATION FUNCTIONS IN TRAINING NEURAL NETWORK	A. N. M. Enamul Kabir, A. F. M. Nokib Uddin, M. Asaduzzaman, M. Fahad Hasan, M. Imran Hasan, and Md. Shahjahan
FORECASTING PARAMETER OF KAILASHTILLA GAS PROCESSING PLANT USING NEURAL NETWORK	Subrata Kumar Kundu, Asif Hasan, and Md.Tanvir Sowgath
A COMPARATIVE STUDY ON TEA SAMPLES CLASSIFICATION BY E-TONGUE USING CROSS CORRELATION BASED PCA , PCA AND SHAMON'S NONLINEAR MAPPING METHOD	Palash K. Kundu and Madhusree Kundu
REAL TIME MOVING OBJECT DETECTION BASED ON MASKING APPROACH	Md. Rezaul Karim, Md.Rethwan Kabeer, Abdur Rahman Bin Shahid, Sanjib Biswas, and Shahriar Badsha
IMPLEMENTATION OF MULTIMEDIA TOUCH SYSTEM WITH COLOUR DETECTION BASED COMPUTER VISION ALGORITHM	Mohammad Wahidur Rahman, Atanu Kumar Saha, Muhammad Abdullah Arafat, Rifat Al Nur, and Rakibul Islam

FPGA BASED PIPELINED IMPLEMENTATION OF FAST 2-D 4×4 INVERSE TRANSFORM OF H.264	Rohan Mukherjee, P. Dheeraj, W. Hari Prasad, Indrajit Chakrabarti, and Somnath Sengupta

Tea Break, Saturday (10:45 AM - 11:00 AM), 22 December 2012

Session: 2A2 Saturday (11:00 AM - 1:00 PM), 22 December 2012, Room: Chitra
Optical Waveguides
Session Chair: Prof. Shah Alam, BUET, Bangladesh

TITLE	AUTHOR(S)
LIGHT GUIDANCE IN LOW-INDEX SLOT-WAVEGUIDES	B. M. Azizur Rahman, David Leung, and K. T. V. Grattan
ON THE CONFINEMENT OF PHOTONS IN A CURVILINEAR LATTICE PHOTONIC CRYSTAL CAVITY	Ashfaqul Anwar Siraji, M. Shah Alam, and Samiul Haque
CWDM INTEGRATED WAVEGUIDE GRATINGS BY INGAASP/INP QUANTUM WELL INTERMIXING	Utpal Das and Ramesh Kumar Sonkar
FIRST PRINCIPLE CALCULATION OF ELECTRONIC AND OPTICAL PROPERTIES OF InP	Ashfaqul Anwar Siraji and M. Shah Alam
A LIQUID CRYSTAL INFILTRATED SINGLE POLARIZATION SPIRAL PHOTONIC CRYSTAL FIBER WITH LARGE NEGATIVE FLAT DISPERSION	Md. Asiful Islam and M. Shah Alam
A STRUCTURE FOR NARROW-BAND COUPLER TYPE PLASMONIC FILTER AND WAVELENGTH DE-MULTIPLEXER	Md. Shamsul Arefin and Salahuddin Raju
PROCESS MODELING OF POLYMERIC OPTICAL WAVEGUIDE USING ARTIFICIAL NEURAL NETWORK	Md. Mahbubul Haque, Md. Ferdous Wahid, and Md. Faruque Hossain

Session: 2B2 Saturday (11:00 AM - 1:00 PM), 22 December 2012, Room: Titas
Communications Networks
Session Chair: Prof. Satya Prasad Majumder, BUET, Bangladesh

TITLE	AUTHOR(S)
A NEW CONGESTION CONTROL ALGORITHM FOR DATAGRAM CONGESTION CONTROL PROTOCOL (DCCP) BASED REAL-TIME MULTIMEDIA APPLICATIONS	Joy Rahman, Sajeeb Saha, and Syed Faisal Hasan
OPTIMIZING THROUGHPUT OF K-FOLD MULTICAST NETWORK WITH FINITE QUEUE USING M/M/N/N+Q/N TRAFFIC MODEL	Md. Mahmudul Hasan, Most. Tajmary Mahfuz, and Mohamed Ruhul Amin
DECOUPLING PUBLIC-PRIVATE KEY PAIRS FROM MARKOV MODELS IN DHCP	Mominul Islam and Shakoat Hossain
A NOVEL MTU MODEL FOR IPV4/IPV6 TRANSITION	Rong Xiao and Bo Sun
DNA CRYPTOGRAPHY	Sabari Pramanik and Sanjit Kumar Setua
DESIGN AND PERFORMANCE ANALYSIS OF CENTRALLY SEEDED, LONG REACH, COST OPTIMIZED HYBRID DWDM TDMA PON	Syed Arbab Mohd Shihab and Mohammad Nasir Uddin
EQUALIZATION & CARRIER RECOVERY FOR 112GBPS OPTICAL COHERENT SYSTEM WITH HEX-16-QAM MODULATION	Md. Mosaddek Hossain Adib, Md. Ibrahim Khalil, Arshad M. Chowdhury, Md. Saifuddin Faruk, and Gee-Kung Chang

A NOVEL ALGORITHM FOR BLIND JOINT EQUALIZATION AND CARRIER PHASE ESTIMATION IN 16-QAM COHERENT OPTICAL COMMUNICATION	Md. Ibrahim Khalil, Md. Mosaddek Hossain Adib, Arshad M. Chowdhury, Md. Saifuddin Faruk, and Gee-Kung Chang

Session: 2C2 Saturday (11:00 AM - 1:00 PM), 22 December 2012, Room: Meghna
Power Systems
Session Chair: Dr. Tapan Kumar Saha, University of Queensland, Australia

TITLE	AUTHOR(S)
AN ADRC BASED DECENTRALIZED LOAD FREQUENCY CONTROLLER FOR BANGLADESH POWER SYSTEM	A. H. M. Sayem, A. Hasib Chowdhury, M. U. Saad, and Zhenwei Cao
APPLICATION OF TCSC AND SVC IN DAMPING OSCILLATIONS IN BANGLADESH POWER SYSTEM	M. Shafiul Alam
ECONOMIC ANALYSIS FOR THE JUSTIFICATION OF OPTIMAL PUMPED STORAGE GENERATION IN A POWER SYSTEM WITH LOAD SCHEDULING	Mohammad Tawhidul Alam, Shamiul Ibne Karim, Khairun Nahar, Israt Jahan, and Khadiz Akhter
TRANSMISSION CAPACITY ENHANCEMENT OF EAST-WEST INTERCONNECTORS USING SERIES-SHUNT COMPENSATION	M. Shafiul Alam and A. Hasib Chowdhury
STUDY OF IMPACTS ON OPERATION OF ISLAND AND FREQUENCY BASED AUTO LOAD SHEDDING TO IMPROVE SERVICE RELIABILITY USING CYME PSAF.	Md. Shafiullah, Hamidur Rahman, and Md. Quamrul Ahsan
A NEW APPROACH TO COHERENCY IDENTIFICATION IN LARGE MULTI-MACHINE POWER SYSTEM	Shaikh Rashedur Rahman, Md. Yeakub Hussain, and Md. Sekendar Ali
APPLICATION OF FFC TO AGC FOR LOAD FREQUENCY CONTROL IN MULTI-AREA POWER SYSTEM	Md. Rafiqul Islam Sheikh, Md. Amzad Hossain, and N. Mondal
A DECENTRALIZED MULTI-AGENT APPROACH TO PREVENT VOLTAGE COLLAPSE IN A POWER SYSTEM	Sk. Razibul Islam, Danny Sutanto, and Kashem Muttaqi

Session: 2D2 Saturday (11:00 AM - 1:00 PM), 22 December 2012, Room: Surma
Renewable Energy-1
Session Chair: Dr. Kashem Muttaqi, University Wollogong, Australia

TITLE	AUTHOR(S)
CONTRIBUTION OF DFIG-BASED WIND FARM TO SYSTEM FREQUENCY CONTROL	Md. Aktarujjaman, Md. Enamul Haque, and Michael Negnevitsky
A STUDY OF FAULT RIDE THROUGH WITH WIDESPREAD GRID INTEGRATION OF DISTRIBUTED GENERATION	Tareq Aziz, Tapan K. Saha, and N. Mithulananthan
A MODIFIED SIMULATION METHOD OF PHOTOVOLTAIC MODULE IN SIMULINK ENVIRONMENT.	Mahamudul Hasan, Saad Mekhilef, and Ibrahim Henk Metselaar
SIX MODE CONTROL STRATEGY FOR A STAND-ALONE HYBRID POWER SYSTEM	Md. Mohsin Sajjad, Animesh Roy Chowdhury, Shaurav Saha, and A. Hasib Chowdhury
DESIGN OF A STAND ALONE HYBRID POWER SYSTEM FOR A REMOTE LOCALITY IN BANGLADESH	Animesh Roy Chowdhury, Shaurav Saha, and Md. Mohsin Sajjad
FUZZY LOGIC BASED LTD SOLAR THERMAL STIRLING ENGINES FOR POWER GENERATION	Md. Arafat Islam, Wali Mohammad Abdullah, and Deen Mohammad Abdullah
DESIGN APPROACH TO GENERATION OF ELECTRICITY FROM VIBRATIONS.	Sanjida Moury, Nuzhat Karim Nisha, and M. Md. Anisul Hoque
STUDY OF A SOLAR PV-POWERED MINI-GRID PUMPED HYDROELECTRIC STORAGE & ITS COMPARISON WITH BATTERY STORAGE	Ariful Haque and Mir Ashikur Rahman

Session: 2E2 Saturday (11:00 AM - 1:00 PM), 22 December 2012, Room: Nirala
Algorithms and Computation
Session Chair: Prof. Md. Saidur Rahman, BUET, Bangladesh

TITLE	AUTHOR(S)
NOVEL CLASS DETECTION IN CONCEPT-DRIFTING DATA STREAM MINING EMPLOYING DECISION TREE	Dewan Md. Farid and Chowdhury Mofizur Rahman
VEHICLE ROUTING PROBLEMS WITH SOFT TIME WINDOWS	Sumaiya Iqbal and M. Sohel Rahman
SELF-ADAPTIVE GENETICALLY PROGRAMMED DIFFERENTIAL EVOLUTION	Pravakar Roy, Md. Jahidul Islam, and Md. Monirul Islam
SS-ADC: SCATTER SEARCH WITH ADAPTIVE DIVERSITY CONTROL	Sabirat Rubya, Samiul Monir, Mahfuza Sharmin, Mohammad Shafiul Alam, and Mohammad Sohel Rahman
IMPROVEMENT OF K-MEANS CLUSTERING ALGORITHM WITH BETTER INITIAL CENTROIDS BASED ON WEIGHTED AVERAGE	Md. Sohrab Mahmud
CAPMAUCTION: REPUTATION INDEXED AUCTION MODEL FOR RESOURCE ALLOCATION IN GRID COMPUTING	Rashedur M. Rahman
TYPE-BASED ANALYSIS OF ARABIC VERBAL DECLENSION	Mahmudul Hasan Masum, Muhammad Sadiqul Islam, M. Sohel Rahman, and Reaz Ahmed
KNOWLEDGE BASED DECISION TREE CONSTRUCTION WITH FEATURE IMPORTANCE DOMAIN KNOWLEDGE	Md. Ridwan Al Iqbal, Saiedur Rahman, Syed Irfan Nabil, and Ijaz Ul Amin Chowdhury

Lunch & Prayer Break , Saturday (1:00 PM - 2:30 PM), 22 December 2012

Session: 2A3 Saturday (2:30 PM - 4:15 PM), 22 December 2012, Room: Chitra
Electronic Devices-1
Session Chair: Prof. M. M. Shahidul Hassan, BUET, Bangladesh

TITLE	AUTHOR(S)
INGASB BASED N-MOSFET: MODELING AND PERFORMANCE ANALYSIS	Muhammad Shaffatul Islam, Md. Osman Goni Nayeem, Md. Nur Kutubul Alam, and Md. Rafiqul Islam
FET TWIN MODEL	Shiekh Ziauddin, Emroz Khan, and Navid Mohammad Imran
ANALYTICAL MODELLING OF AN ASYMMETRIC POCKET IMPLANTED N-CHANNEL MOSFETS	S. M. Naeemul Islam and M. Ziaur Rahman Khan
CHARACTERIZATION OF INTERFACE TRAP DENSITY OF IN-RICH INGAAS GATE-ALL-AROUND NANOWIRE MOSFETS	Fahim Ur Rahman, Md. Shafayat Hossain, Saeed Uz Zaman Khan, Rifat Zaman, Md. Obaidul Hossen, and Quazi D. M. Khosru
SELF-CONSISTENT DETERMINATION OF THRESHOLD VOLTAGE OF IN-RICH GATE-ALL-AROUND $In_xGa_{1-x}As$ NANOWIRE TRANSISTOR INCORPORATING QUANTUM MECHANICAL EFFECT	Rifat Zaman, Saeed Uz Zaman Khan, Md. Shafayat Hossain, Fahim Ur Rahman, Md. Obaidul Hossen, and Quazi D. M. Khosru
CARRIER DIFFUSION TIME DELAY OF POCKET IMPLANTED NANO SCALE N-MOSFET	Fouzia Ferdous, Muhibul Haque Bhuyan, and Quazi D. M. Khosru
TEMPERATURE EFFECTS ON SUBTHRESHOLD CURRENT OF POCKET IMPLANTED NANO SCALE N-MOSFET	Muhibul Haque Bhuyan, Fouzia Ferdous, and Quazi D. M. Khosru

Session: 2B3 Saturday (2:30 PM - 4:15 PM), 22 December 2012, Room: Titas
Electromagnetics, Microwave and RF Engineering-1
Session Chair: Dr. Mohammod Ali, University of South Carolina, USA

TITLE	AUTHOR(S)
RADAR CROSS SECTION CALCULATION OF A SHELL-SHAPED PROJECTILE USING BEZIER CURVES AND PHYSICAL OPTICS	Mohammad Asif Zaman and Md. Abdul Matin
EFFECT OF FSS GROUND PLANE ON SECOND ITERATION OF HEXAFLAKE FRACTAL PATCH ANTENNA	Sajid Muhaimin Choudhury and M. A. Matin
CONSTRAINED OPTIMIZATION OF A YAGI-UDA ANTENNA USING DIFFERENTIAL EVOLUTION ALGORITHM	Mohammad Asif Zaman and Md. Abdul Matin
A NOVEL MINIATURIZED TRIPLE-BAND ANTENNA	Mehedi Hasan, Mahdy Rahman Chowdhury Mahdy, Gazi Mahamud Hasan, and Lutfa Akter
COMPACT DUAL L-SLIT SLOTTED ANTENNA FOR SPACECRAFT, WLAN, WI-FI, AND BLUETOOTH APPLICATION	Md. Rubel Basar, Md. Abul Hossain, Md. Reshad Ul Hoque, and Khaled Mahbub Morshed
A SIMPLE STRUCTURED PLANAR WIRE ANTENNA FOR WIRELESS COMMUNICATION APPLICATIONS	Md. Jobayer Hossain, M. A. Masud Khan, Abu Md. Numan-Al-Mobin, and Khaled Mahbub Morshed
A 200PS DIFFERENTIAL CMOS DELAY ELEMENT FOR 10 GHZ ULTRA WIDEBAND WIRELESS RECEIVERS	Alif Ahmed, S. M. S. Rashid, and A. B. M. H. Rashid

Session: 2C3 Saturday (2:30 PM - 4:15 PM), 22 December 2012, Room: Meghna
VLSI Design-2
Session Chair: Prof. Md. Shafiqul Islam, BUET, Bangladesh

TITLE	AUTHOR(S)
ANALYTICAL MODELING OF COLLISIONLESS TRIPLE FREQUENCY CAPACITIVE SHEATH	Mir Tanjidur Rahman, Md. Nasim Ahmed Dewan, and Md. Robiul Hoque Chowdhury
MODELING OF A COLLISIONAL TRIPLE FREQUENCY CAPACITIVELY COUPLED PLASMA SHEATH	Mir Tanjidur Rahman, Md. Nasim Ahmed Dewan, and Md. Robiul Hoque Chowdhury
A CURRENT RACE-BASED TECHNIQUE WITH DUAL FEEDBACK FOR MATCH-LINE ENERGY REDUCTION IN TERNARY CONTENT ADDRESSABLE MEMORY	Syed Iftekhar Ali and M. S. Islam
AN ELITIST AREA-POWER DENSITY TRADE-OFF IN VLSI FLOORPLAN USING GENETIC ALGORITHM	Apangshu Das, Somnath Roy Choudhury, Balla Kiran Kumar, and Sambhu Nath Pradhan
DESIGN AND PERFORMANCE EVALUATION OF A REDUNDANT BINARY FULL ADDER FOR UNIFORM TIMING DELAY	Jakir Hossen and Bashir I. Morshed
OPTIMIZATION OF VLSI ARCHITECTURES FOR DTW	Shah Muhammed Abid Hussain and A. B. M. Harun-ur Rashid

Session: 2D3 Saturday (2:30 PM - 4:15 PM), 22 December 2012, Room: Surma
Renewable Energy-2
Session Chair: Prof. Syed M. Islam, Cutin University, Australia

TITLE	AUTHOR(S)

TITLE	AUTHOR(S)
DESIGN AND PERFORMANCE ANALYSIS OF A MAGNETICALLY LEVITATED VERTICAL AXIS WIND TURBINE BASED AXIAL FLUX PM GENERATOR	Nirav Patel and M. Nasir Uddin
REFERENCE POWER SELECTION FOR SMOOTHING WIND POWER FLUCTUATIONS WITH REDUCED ENERGY CAPACITY	Md. Rafiqul Islam Sheikh, M. A. Motin, M. A. Hossain, and M. Shahed
PROSPECT OF TIDAL POWER GENERATION IN BANGLADESH THROUGH TIDAL BARRAGE USING LOW HEAD WATER TURBINE	Mohammad Tawhidul Alam, Tofaeel Ahamed, Younus Tareq, Ahsanullah Wahid, and Sohorab Hossain
ALGAE BASED BIOFUEL PRODUCTION FROM CO2 OBTAINED FROM FIXED CHIMNEY BRICKFIELDS IN BANGLADESH	Shahriar Rahman, Razin Ahmed, and Salman Quaiyum
A PROPOSAL ON NEW SCHEDULING OF TURBINE DISCHARGE AT KAPTAI HYDRO-ELECTRIC POWER PLANT TO AVOID THE WASTAGE OF WATER DUE TO OVERFLOW IN THE DAM	Md. Asif Mahmood Chowdhury and Masum Al Rahim
EXTRACTION OF WIND POWER AT DIFFERENT WINDY LOCATIONS IN BANGLADESH	M. A. Hossain and S. Yasmin
A NOVEL PARAMETRIC BOUND FOR INFORMATION RETRIEVAL FROM BLACK HOLE RADIATION.	Avik Roy, Moinul Hossain Rahat, Mishkat Al Alvi, Mahbub Majumdar, and Md. Abdul Matin

Session: 2E3 Saturday (2:30 PM - 4:15 PM), 22 December 2012, Room: Nirala
Control Theory and Applications-1
Session Chair: Prof. Pran Kanai Saha, BUET, Bangladesh

TITLE	AUTHOR(S)
ALTITUDE CONTROL OF AN UNMANNED AUTONOMOUS HELICOPTER VIA ROBUST BACKSTEPPING CONTROLLER UNDER HORIZONTAL WIND GUSTS	Tushar Kanti Roy
ROBUST H_∞ FILTER DESIGN FOR A CLASS OF UNCERTAIN SYSTEMS WITH TIME-VARYING STATE-DELAYS	Goshaidas Ray and K. Ramakrishnan
FASTER SCANNING PERFORMANCE OF OMPC CONTROLLED AFM	Md. Sohel Rana and Hemanshu Roy Pota
A NON-LINEAR PD CONTROLLER FOR PURE INTEGRATING PROCESS WITH DELAY	Chanchal Dey, Rajani K. Mudi, and Parikshit Kr. Paul
POSITION CONTROL OF A SMALL HELICOPTER USING ROBUST BACKSTEPPING	Tushar Kanti Roy
ITERARIVE SOLVERS FOR PERIODIC MATRIX EQUATIONS AND MODEL REDUCTION FOR PERIODIC CONTROL	Mohammad-Sahadet Hossain and Peter Benner

Tea Break, Saturday (4:15 PM - 4:30 PM), 22 December 2012

Session: 2A4 Saturday (4:30 PM - 6:30 PM), 22 December 2012, Room: Chitra
Electronic Devices-2
Session Chair: Prof. Anisul Haq, East West University, Bangladesh

TITLE	AUTHOR(S)
MATHEMATICAL MODELLING OF ACCUMULATION LAYER THICKNESS OF FULLY DEPLETED G4-FETS	Shehrin Sayed and M. Ziaur Rahman Khan

TITLE	AUTHOR(S)
ULTRA HIGH-CURRENT-GAIN $In_xGa_{1-x}Sb$-BASED DHBT WITH COMPOSITIONAL GRADED BASE	Md. Nur Kutubul Alam, Md. Osman Goni Nayeem, Muhammad Shaffatul Islam, and Md. Rafiqul Islam
AN IMPROVED ANALYTICAL MODEL OF CURRENT IN TUNNEL FIELD EFFECT TRANSISTOR	Mirza Mohammad Monzure Elahi, Kawser Ahmed, and Md. Shofiqul Islam
ANALYTICAL MODELING OF THE SOI FOUR-GATE TRANSISTOR USING CONFORMAL MAPPING	Farhana Sharmin Snigdha, Tanima Tasmin Chowdhury, and Shaeera Rabbanee Shuvra
THRESHOLD VOLTAGE SENSITIVITY REDUCTION OF SOI FOUR GATE TRANSISTOR	Md. Sariful Islam, Bishwajit Debnath, Samantha Lubaba Noor, Muhsiul Hassan, A. F. M. Saniul Haq, and M. Ziaur Rahman Khan
OFF CURRENT MODELING OF A TUNNEL FIELD EFFECT TRANSISTOR	Md. Shofiqul Islam, Kawser Ahmed, and Mirza Mohammad Monzure Elahi
A COMPARATIVE STUDY OF POTENTIAL DISTRIBUTION OF A THIN FILM SOI P-CHANNEL FOUR GATE TRANSISTOR	A. F. M. Saniul Haq, Samantha Lubaba Noor, Muhsiul Hassan, M. Sariful Islam, Bishwajit Debnath, and M. Ziaur Rahman Khan
INJECTION RATIO AND STORAGE TIME OF A NON-UNIFORMLY DOPED SCHOTTKY BARRIER DIODE	M. M. Shahidul Hassan and Orchi Hassan

Session: 2B4 Saturday (4:30 PM - 6:30 PM), 22 December 2012, Room: Titas
Electromagnetics, Microwave and RF Engineering-2
Session Chair: Prof. Nemai Chandra Karmakar, Monash University, Australia

TITLE	AUTHOR(S)
TOWARDS AN INTELLIGENT EM BARCODE	Emran Md. Amin, Nemai Karmakar, and Stevan Preradovic
EFFICIENT COLLISION DETECTION METHOD IN CHIPLESS RFID SYSTEMS	Rubayet-E- Azim and Nemai C. Karmakar
CONCEPTUAL AND PRACTICAL REALIZATION OF REDUCED SIZE MULTI-BAND CIRCULAR MICROSTRIP PATCH ANTENNA LOADED WITH MNG METAMATERIAL	Shah Mahmud Hasan Chowdhury
A NOVEL HYBRID STRUCTURE OF METAMATERIAL	Mehedi Hasan and Lutfa Akter
ANALYSIS OF SHUNT - SERIES SLOT FED WAVEGUIDE BROAD WALL SHUNT SLOT RADIATOR	Ashmi Chakraborty, Rintu Kumar Gayen, Subrata Chattopadhyay, Amar Kumar Ganguly, and Sushrut Das
A NOVEL SCALING DOWN DISPERSION OF MICROSTRUCTURE OPTICAL FIBERS TO NEAR-ZERO VALUE FOR BROADBAND COMMUNICATION SYSTEMS	Md. Samiul Habib, Md. Selim Habib, and S. M. Abdur Razzak
DESIGN OF MICROSTRUCTURE OPTICAL FIBERS AS BROADBAND DISPERSION COMPENSATORS	Md. Selim Habib, Md. Samiul Habib, S. M. Abdur Razzak
STAIRCASE POWER DISTRIBUTION OF ARRAY ANTENNA FOR UHF BAND RFID READER	A. K. M. Baki

Session: 2C4 Saturday (4:30 PM - 6:30 PM), 22 December 2012, Room: Meghna
Signal Processing
Session Chair: Prof. Md. Kamrul Hasan, BUET, Bangladesh

TITLE	AUTHOR(S)
TRENDS IN OIL SPILL DETECTION VIA HYPERSPECTRAL IMAGING	Md. S. Alam and Paheding Sidike

TITLE	AUTHOR(S)
SEGMENTATION AND 3D VISUALIZATION OF VOLUMETRIC IMAGE FOR DETECTION OF TUMOR IN CANCEROUS BRAIN	Riazul Islam, Abdullah Al Mamun, Mohammed Imamul Hassan Bhuiyan, and S. M. Mahbubur Rahman
DETECTION OF UHF BAND IMPULSE RADIO SIGNAL THROUGH WAVELET PACKET TRANSFORM	Nemai Chandra Karmakar and A. K. M. Baki
AUTOMATIC MOTION TRACKING AND CHAOS ANALYSIS OF A REAL TIME MOVING OBJECT	Md. Maniul Islam, Abu Farzan Mitul, Muhammad Rakeeb, and Md. Shahjahan
DETECTION OF NASALIZED VOWELS BASED ON CEPSTRA DERIVED FROM THE PRODUCT SPECTRUM	Shamima Najnin and Celia Shahnaz
GRADIENT BASED ADAPTIVE FILTER ALGORITHM FOR SINGLE CHANNEL ACOUSTIC ECHO CANCELLATION IN NOISE	Upal Mahbub and Shaikh Anowarul Fattah
A COMBINATION OF SEMISOFT AND μ-LAW THRESHOLDING FUNCTIONS FOR ENHANCING NOISY SPEECH IN WAVELET PACKET DOMAIN	Tahsina Farah Sanam and Celia Shahnaz

Session: 2D4 Saturday (4:30 PM - 6:30 PM), 22 December 2012, Room: Surma
Renewable Energy-3
Session Chair: Prof. Shahidul Islam Khan, BUET, Bangladesh

TITLE	AUTHOR(S)
AN INNOVATIVE ENERGY NEUTRAL HOME SYSTEM FOR RURAL AREAS OF BANGLADESH	Choton Kanti Das and Mohammad Jahangir Alam
ECONOMIC ANALYSIS OF SOLAR PV SYSTEM FOR URBAN AREAS OF BANGLADESH	Shahidul Islam Islam Khan and S. M. Moynul Haque
PERFORMANCE VARIATION OF BUILDING INTEGRATED PHOTOVOLTAIC APPLICATION WITH TILT AND AZIMUTH ANGLE IN BANGLADESH	Suman Chowdhury, Muhammad Al-amin, and Mohiuddin Ahmad
POWER MAXIMIZATION OF A PHOTOVOLTAIC SYSTEM USING AUTOMATIC SOLAR PANEL TRACKING ALONG WITH BOOST CONVERTER AND CHARGE CONTROLLER	Md. Ismail Hossain, Shakil Ahamed Khan, and Md. Shafiullah
BUILDING INTEGRATED PHOTOVOLTAIC SYSTEM: COST EFFECTIVENESS	Ariful Haque, Mir Ashikur Rahman, and Q. Ahsan
DESIGN AND SIMULATION OF AN OPEN VOLTAGE ALGORITHM BASED MAXIMUM POWER POINT TRACKER FOR BATTERY CHARGING PV SYSTEM	S. M. Ferdous, Mahir Asif Mohammad, Farhan Nasrullah, Ahmed Mortuza Saleque, and A. Z. M. Shahriar Muttalib
FAST MAXIMUM POWER POINT TRACKER FOR PHOTOVOLTAIC ARRAYS	Anjan Debnath, Sukanta Roy, M. Nazmul Huda, and M. Ziaur Rahman Khan
TECHNICAL AND FINANCIAL ASPECTS OF SOLAR PV SYSTEM FOR CITY DWELLERS OF BANGLADESH WHERE GREEN ENERGY INSTALLATION IS MANDATORY TO GET UTILITY POWER SUPPLY	Purnata Roy, Yeasir Arafat, Mushfika Baishakhi Upama, and Aminul Hoque

Session: 2E4 Saturday (4:30 PM - 6:30 PM), 22 December 2012, Room: Nirala
Control Theory and Applications-2
Session Chair: Prof. Peter Benner, Max Plank Institute, Germany

TITLE	AUTHOR(S)
POSITION CONTROL OF PNEUMATIC ACTUATOR USING MULTI-RATE OUTPUT FEEDBACK SLIDING MODE CONTROL	Swarup Das, B. Bandyopadyay, A. K. Paul, and Asif Chalanga

BOILER GAS BURNER MANAGEMENT SYSTEM AUTOMATION USING PLC	Palash Kumar Bhowmik and Sagar Kanti Dhar
IMPLEMENTATION OF A LOW COST HYBRID AUTOMATED TELLER MACHINE (H-ATM) WITH INTEGRATED CURRENCY EXCHANGE CAPABILITY	Asif Iqbal, Farzana Shabnam, Nirjhor Tahmidur Rouf, Imran Bin Jafar, and Kanij Raihana
SECOND ORDER TO SECOND ORDER BALANCING FOR INDEX-1 VIBRATIONAL SYSTEMS	Peter Benner, Jens Saak, and M. Monir Uddin
MINIMAL QUASI SLIDING MODE BAND WITH MULTIRATE OUTPUT FEEDBACK	S. Chakrabarty and B. Bandyopadhyay
STATE ESTIMATION AND NON VANISHING UNMATCHED DISTURBANCE RECONSTRUCTION USING MODIFIED SUPER TWISTING ALGORITHM	Shyam Kamal, Asif Chalanga, Manas Kumar Bera, and Bijnan Bandyopadhyay
STABILIZATION OF STEWART PLATFORM USING HIGHER ORDER SLIDING MODE CONTROL	Ramesh Kumar and Bijnan Bandyopadhyay
OUTPUT FEEDBACK CONTROL OF FLEXIBLE LINK MANIPULATOR USING SLIDING MODES	Shailaja Kurode and Prashant Dixit

Saturday (6:00 PM - 7:00 PM), 22 December 2012, Room: Surma & Nirala
Best Paper Award Giving & Closing Ceremony