

2nd International Conference on Electrical Information and Communication  
Technology (EICT-2015)  
(10-12 December 2015, KUET, Khulna, Bangladesh)  
**Conference Program**

| <b>Program Highlights Day 1</b>            |  |      |      |      |
|--|--|------|------|------|
| <b>Day 1 : 10 December 2015 (Thursday)</b> |  |      |      |      |
| 9:00AM – 10:00 AM                          | Registration and Kit Distribution, KUET Auditorium |      |      |      |
| 10:00 AM – 10:45AM                         | Inauguration Ceremony, KUET Auditorium             |      |      |      |
| 10:45AM – 11:15AM                          | Refreshment, KUET Auditorium                       |      |      |      |
| 11:15AM – 12:00 PM                         | Keynote Session I                                  |      |      |      |
| 12:00PM – 12:45PM                          | Keynote Session II                                 |      |      |      |
| 12:45 PM – 1:15 PM                         | Session for Sponsors                               |      |      |      |
| 1:15 PM – 2:15 PM                          | Prayer and Lunch Break                             |      |      |      |
| 2:30 PM – 3:30 PM                          | <b>Parallel Technical Session A</b>                |      |      |      |
|  | D1A1   | D1A2 | D1A3 | D1A4 |
| 3:30 PM – 4:15 PM                          | Prayer and Tea Break                               |      |      |      |
| 4:15 PM – 5:00 PM                          | <b>Parallel Technical Session B</b>                |      |      |      |
|  | D1B1   | D1B2 | D1B3 | D1B4 |
| <b>End of Day 1</b>                        |  |      |      |      |
| <b>Program Highlights Day 2</b>            |  |      |      |      |
| <b>Day 2 : 11 December 2015 (Friday)</b>   |  |      |      |      |
| 8:45 AM – 9:45 AM                          | <b>Parallel Technical Session C</b>                |      |      |      |
|  | D2C1   | D2C2 | D2C3 | D2C4 |
| 9:45 AM – 10:00 AM                         | Tea Break  |      |      |      |
| 10:00 AM – 10:45 AM                        | Keynote Session III                                |      |      |      |
| 10:45 AM – 11:30 AM                        | Keynote Session IV                                 |      |      |      |
| 11:30 AM – 12:30 PM                        | <b>Parallel Technical Session D</b>                |      |      |      |
|  | D2D1   | D2D2 | D2D3 | D2D4 |
| 12:30 PM – 2:30 PM                         | Prayer and Lunch Break                             |      |      |      |
| 2:30 PM – 3:30 PM                          | <b>Parallel Technical Session E</b>                |      |      |      |
|  | D2E1   | D2E2 | D2E3 | D2E4 |
| 3:30 PM – 4:15 PM                          | Prayer and Tea Break                               |      |      |      |
| 4:15 PM – 5:00 PM                          | <b>Parallel Technical Session F</b>                |      |      |      |
|  | D2F1   | D2F2 | D2F3 | D2F4 |
| <b>End of Day 2</b>                        |  |      |      |      |

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| <b>Program Highlights Day 3</b>            |  |      |      |      |
|--|--|------|------|------|
| <b>Day 3 : 12 December 2015 (Saturday)</b> |  |      |      |      |
| 9:00 AM – 10:00 AM                         | <b>Parallel Technical Session G</b>    |      |      |      |
|  | D3G1                                   | D3G2 | D3G3 | D3G4 |
| 10:00 AM – 10:30 AM                        | Tea Break                              |      |      |      |
| 10:30 AM – 5:15PM                          | Sight Seeing Tour                      |      |      |      |
| 6:30 PM – 9:00 PM                          | Closing Ceremony and Conference Dinner |      |      |      |
| <b>End of Day 3</b>                        |  |      |      |      |

| <b>Keynote Sessions</b>   |                        |
|---|------------------------|
| <b>Keynote Session I</b>  |                        |
| Date: 10 December 2015,<br>Time: 11:15AM – 12:00 PM<br>Title: Multimodal Biometrics System of IIT Kanpur<br>Speaker: Prof. Phalguni Gupta                 | Venue: KUET Auditorium |
| <b>Keynote Session II</b>   |                        |
| Date: 10 December 2015<br>Time: 12:00PM –12:45PM<br>Title: Success of indigenous efforts in Biomedical Engineering<br>Speaker: Prof. K Siddique-e Rabbani | Venue: KUET Auditorium |
| <b>Keynote Session III</b>  |                        |
| Date: 11 December 2015<br>Time: 10:00 AM – 10:45 AM<br>Title: Journey of the transistor<br>Speaker: Prof. Anisul Haque                                    | Venue: CSE 301         |
| <b>Keynote Session IV</b>   |                        |
| Date: 11 December 2015<br>Time: 10:45 AM – 11:30 AM<br>Title: Planar Antennas for Small Satellite<br>Speaker: Prof. Mohammad Tariqul Islam                | Venue: CSE 301         |

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| <b>Technical Session : Day 1 – Parallel Session A (D1A1)</b><br>10 December 2015 |      |  |
|--|------|--|
| Venue : CSE 302  |      | Time: 2:30 PM – 3:30 PM  |
| Session Title: Fuzzy Logic and Neural Network                                    |      |  |
| D1A1 - 1   | 1027 | Humanlike Robotic Vision System Using Artificial Neural Network<br>Kazi Abu Zubair, Subha Singha, Sabrina Alam and Kazi Tanvir Ahmmed  |
| D1A1 - 2   | 1047 | Classification and pattern recognition algorithms applied to E-Nose<br>Md. Mizanur Rahman, Chalie Charoenlarnnoppa and Prapun Suksompong   |
| D1A1 - 3   | 1070 | Multi Objective Non-dominated Sorting Genetic Algorithm (NSGA-II) for Optimizing Fuzzy Rule Base System<br>Mehnuma Tabassum Omar, Monika Gope, Ariful Islam Khandaker and Pintu Chandra Shill        |
| D1A1 - 4   | 1071 | A Multi-Objective Genetic Algorithm with Fuzzy Relational Clustering for Automatic Data Clustering<br>Animesh Kundu, Animesh Kumar Paul, Pintu Chandra Shill and Kazuyuki Murase                     |
| <b>Technical Session : Day 1 – Parallel Session A (D1A2)</b><br>10 December 2015 |      |  |
| Venue : CSE 301  |      | Time: 2:30 PM – 3:30 PM  |
| Session Title: Soft Error and Image Processing                                   |      |  |
| D1A2 - 1   | 1055 | Soft Error Tolerance Using Horizontal-Vertical-Diagonal-Blocks<br>Md. Shamimur Rahman, Sakib Ahammed and Mohammad Sheikh Sadi  |
| D1A2 - 2   | 1056 | Towards Tolerating Soft Errors in Memory Applications<br>Muhammad Sheikh Sadi, Musaddique Billah Talha, Swadin Saha, Golam Mezbah Uddin and Kazi Md. Bodrul Kabir                                    |
| D1A2 - 3   | 1076 | Orchestration Algorithms for Network-assisted Virtual Machine Migrations using Open Day Light Controller<br>Shamim Ahmed, Barbara Martini, Molka Gharbaoui, Andrea Sgambelluri and Sk. Shariful Alam |

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|---|------|--|
| D1A2 - 4  | 2014 | Automatic Detection of Optic Disc in Fundus Images by Curve Operator<br>M. Nahid Reza and Mohiuddin Ahmad  |
| D1A2 - 5  | 2025 | Role of Clinical Engineering to Reduce Patient Risk Factors in Life Support Ventilator<br>Md. Anwar Hossain, A. K. M. Rahman, Md. Rezanur Rahman, Md. Rafiqul Islam and Mohiuddin Ahmad        |
| <b>Technical Session : Day 1 – Parallel Session A (D1A3)</b><br><b>10 December 2015</b> |      |  |
| <b>Venue : ECE 219</b>  |      | <b>Time: 2:30 PM – 3:30 PM</b>   |
| <b>Session Title: Bio Signals Classification and Detection</b>                          |      |  |
| D1A3 - 1  | 2004 | Computing a Longest Common Subsequence for Multiple Sequences<br>Chinmay Bepery, Sk. Abdullah-Al-Mamun and M. Sohel Rahman   |
| D1A3 - 2  | 2017 | An Approach to Estimate Cognitive State with the Impact of Listening Music on Brain Activity<br>Monira Islam, Mohiuddin Ahmad and Md. Salah Uddin Yusuf  |
| D1A3 - 3  | 2019 | Effects of Elevated Sleeping Postures on Cardiac Functions Analyzing Electrical Bio-impedance and Skin Blood Perfusion<br>Shabaz Khan, Md. Bashir Uddin and Mohiuddin Ahmad                    |
| D1A3 - 4  | 2040 | Automatic Sleep Stage Classification<br>Ahnaf Rashik Hassan and Mohammed Imamul Hassan Bhuiyan   |
| <b>Technical Session : Day 1 – Parallel Session A (D1A4)</b><br><b>10 December 2015</b> |      |  |
| <b>Venue : IEM 214</b>  |      | <b>Time: 2:30 PM – 3:30 PM</b>   |
| <b>Session Title: Optical Communication</b>   |      |  |
| D1A4 - 1  | 4013 | Free-Space Optical Communication with m-ary Pulse Position Modulation under Strong Turbulence with Different Type of Receivers<br>Md. Athaharul Islam, Ashraful Bari Chowdhury and Bobby Barua |
| D1A4 - 2  | 4025 | Implementation of a 1x16 Router Using 2x2 Mach-Zehnder Interferometer Electro-Optic Switch<br>Rabeya Khatun, Raqibul Hossen and Kazi Tanvir Ahmmmed  |

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|---|------|--|
| D1A4 - 3  | 4036 | Orientation Dependent Performance of 635nm Vertical Cavity Surface Emitting QW Red Laser<br>Muhammad Mainul Islam, Md. Shamim Sarker, Md. Mahbub Hasan and Md. Rafiqul Islam   |
| D1A4 - 4  | 4055 | Modeling of Highly Birefringent Dispersion Compensating Circular Photonic Crystal Fiber<br>Umme Ayesha Siddika and M. Shaifur Rahman   |
| D1A4 - 5  | 4085 | Design & Simulation of Ultra-Flattened Dispersion Large Mode Area and Low Splice Loss Photonic Crystal Fiber<br>Md. Rakib Hasan and Md. Selim Hossain  |
| <b>Technical Session : Day 1 – Parallel Session B (D1B1)</b><br><b>10 December 2015</b> |      |  |
| <b>Venue : CSE 302</b>  |      | <b>Time: 4:15 PM – 5:00 PM</b>   |
| <b>Session Title: Power System Analysis</b>   |      |  |
| D1B1 - 1  | 6023 | Simulation and Analysis of Battery Performance of a Solar Car Using a Model Implemented in SIMULINK<br>Abdullah Al Mahmud, Asif Zaman, Imran Bin Jafar and Mosaddequr Rahman   |
| D1B1- 2   | 6043 | Investigation of THD on a 12-Pulse HVDC Transmission Network and Mitigation of Harmonic Currents Using Passive Filters<br>Sanjib Kumar Nandi, Md. Siddikur Rahman and Ridown Rashid Riadh                                    |
| D1B1 - 3  | 6057 | Damping of Power System Oscillations using STATCOM<br>Mehedi Hassan and N. K. Roy  |
| <b>Technical Session : Day 1 – Parallel Session B (D1B2)</b><br><b>10 December 2015</b> |      |  |
| <b>Venue : CSE 301</b>  |      | <b>Time: 4:15 PM – 5:00 PM</b>   |
| <b>Session Title: Power Distribution</b>  |      |  |
| D1B2 - 1  | 6034 | Replacing Diesel Irrigation Pumps with Solar Photovoltaic Pumps for Sustainable Irrigation in Bangladesh: A Feasibility Study with HOMER<br>Md. Nazmul Islam Sarkar, Anwarul Islam Sifat, Nazmul Rahim and S. M. Shamim Reza |

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|---|------|--|
| D1B2 - 2  | 6035 | Cost Analysis of Rural Distribution Systems with Three Phase and Single Phase Tap Line<br>Sanjib Kumar Roy and Naruttam Kumar Roy  |
| D1B2 - 3  | 6044 | Harmonic Analysis on LVDC Distribution System and Passive Filter Techniques for Harmonic Reduction<br>Sanjib Kumar Nandi, Md. Siddikur Rahman and Ridown Rashid Riadh                        |
| <b>Technical Session : Day 1 – Parallel Session B (D1B3)</b><br><b>10 December 2015</b> |      |  |
| <b>Venue : ECE 219</b>  |      | <b>Time: 4:15 PM – 5:00 PM</b>   |
| <b>Session Title: Natural Language Processing and Software Engineering</b>              |      |  |
| D1B3 - 1  | 7005 | Automatic Gender Identification System for Bengali Speech<br>Md. Shahriar Rahman, Md. Fasihul Kabir, Khandaker Abdullah-Al-Mamun and Mohammad Nurul Huda                                     |
| D1B3 - 2  | 7019 | Enhancing Software Development Process Using Automated Adaptation of Object Ensembles<br>Md Emran, Humaun Kabir, Ziaur Rahman and Nazrul Islam   |
| D1B3 - 3  | 7028 | An Experimental Study Of Stylogenetics in Bangla Literature<br>Prapti Das and Rishmita Tasmim  |
| D1B3 - 4  | 7029 | Designing an Empirical Framework to Measure the Level of Interest of Human<br>Mizanur Rahman, Minaski Debnath, Shyla Sarmin, Safayet Arefin, Lamia Alam, Mohammed Moshiul Hoque              |
| D1B3 -4   | 1064 | A Rule Based Approach for NLP Based Query Processing<br>Tanzim Mahmud, K. M. Azharul Hasan, Mahtab Ahmed and Thwoi Hla Ching Chak  |
| <b>Technical Session : Day 1 – Parallel Session B (D1B4)</b><br><b>10 December 2015</b> |      |  |
| <b>Venue : IEM 214</b>  |      | <b>Time: 4:15 PM – 5:00 PM</b>   |
| <b>Session Title: Semiconductor and Devices</b>   |      |  |
| D1B4 - 1  | 5012 | Analysis of Carrier Injection and Recombination in Modified ITO Based Organic Light Emitting Diode Using Numerical Simulation<br>Riku Chowdhury, Rashedul Haq, Sukanta Paul and Sarwar Uddin |

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| D1B4 - 2 | 5018 | Study on Crystal Orientation-dependent Effective mass in III-V Semiconductors<br>Sourav Roy, Utpal Bhowmik, Md. Mahbub Hasan and Md. Rafiqul Islam   |
| D1B4 - 3 | 5027 | Study of the Variation of Resistivity, Permeability and Curie Temperature of Rare Earth Metal Yttrium (Y) Substitution on Ni <sub>0.60</sub> Zn <sub>0.40-x</sub> Y <sub>x</sub> Fe <sub>2</sub> O <sub>4</sub> (x=0.05, 0.10, 0.15) Ferrites<br>Md. Alamgir Hossain, Md. Nazrul Islam Khan and Shibendra Shekher Sikder |

**Technical Session : Day 2 – Parallel Session C (D2C1)**  
11 December 2015

**Venue : CSE 302** **Time:8:45 AM – 9:45 AM**

**Session Title : Artificial Intelligence**

|          |      |  |
|----------|------|--|
| D2C1 - 1 | 7015 | A Support Vector Regression model for forecasting rainfall<br>Nasimul Hasan, Nayan Chandra Nath and Risul Islam Rasel  |
| D2C1 - 2 | 7021 | A Modified Fuzzy Relational Clustering Approach For Sentence-Level Text<br>Sikder Tahsin, Al-Amin, Mahade Hasan and M. M. A. Hashem  |
| D2C1 - 3 | 7022 | Performance Analysis for Detection of Breast Cancer Biomarker HER2 using a Double Gate FET Nano Biosensor<br>Mohsin Sajjad and Md. Raqibul Hasan   |
| D2C1 - 4 | 7024 | Helping Software Developers through Offline Repository Based API Searching in Data Mining Integrated Environment<br>Md. Ratul Uddin Ashraf, Anujoy Das, Ziaur Rahman and Ali Newaz Bahar |

**Technical Session : Day 2 – Parallel Session C (D2C2)**  
11 December 2015

**Venue : CSE 301** **Time:8:45 AM – 9:45 AM**

**Session Title : Graphene in Communication Engineering**

|          |      |   |
|----------|------|---|
| D2C2 - 1 | 5005 | Graphene nanoribbon based Antenna For Terahertz Band Communication<br>Sakib Adnan and Md. Osman Goni  |
| D2C2 - 2 | 5020 | Modeling of Crosstalk Induced Overshoot/Undershoot Effects in Multilayer Graphene Nanoribbon Interconnects<br>Manodipan Sahoo and Hafizur Rahaman |

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| D2C2 - 3 | 5025 | Modeling and Performance Analysis of Multilayer Zigzag Graphene Nanoribbon (zz-MLGNR) Interconnect for VLSI Application<br>Monjurul Feeroz Meem and Abdullah Saki              |
| D2C2 - 4 | 5028 | Large Signal Performance of Graphene-FET Considering Contact Resistance<br>Md. Ashkarul Haque Shojib, Md. Rasidul Islam Rony, Md Nur Kutubul Alam Jhilam and Md. Rafiqul Islam |
| D2C2 - 5 | 5029 | Efficient design of thermal mangement by graphene heat spreader in embedded system<br>S.M. Rafi-Ul-Islam and Samia Subrina   |

**Technical Session : Day 2 – Parallel Session C (D2C3)  
11 December 2015**

**Venue : ECE 219**

**Time:8:45 AM – 9:45 AM**

**Session Title : Biometrics**

|          |      |  |
|----------|------|--|
| D2C3 - 1 | 2005 | A Novel Efficient Approach for Designing FIR Low-pass Filter and Its Application<br>Hrishi Rakshit and Muhammad Ahsan Ullah  |
| D2C3 - 2 | 2018 | A Simple and Improved Eye Movement Features Detection Process from Saccadic Samples of Electrooculographic Data<br>Md. Shazzad Hossain, Kristie Huda, Sourav Roy, Md. Masud Rana and Mohiuddin Ahmad |
| D2C3 - 3 | 2037 | Development of Low Cost Wireless Biosignal Acquisition System for ECG EMG and EOG<br>Md. Asif Ahamed, Md. Asraf-Ul- Ahad, Md. Hanif Ali Sohag and Mohiuddin Ahmad                                    |
| D2C3 - 4 | 2038 | An Approach to Convert Conventional Screen into Touch Screen Using Image Processing<br>Md. Hanif Ali Sohag, Mst. Mahmuda Khatun and Mohiuddin Ahmad  |
| D2C3 - 5 | 2039 | A new sample preparation technique for linear dilution gradient with minimal sample utilization and waste generation in DMFBs<br>Pranab Roy, Khokan Mondal, Mayuri Kundu and Hafizur Rahaman         |

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| <b>Technical Session : Day 2 – Parallel Session C (D2C4)</b> |      |  |
|--|------|--|
| <b>11 December 2015</b>                                      |      |  |
| <b>Venue : IEM 214</b>                                       |      | <b>Time: 8:45 AM – 9:45 AM</b>   |
| <b>Session Title : Wireless Communication System</b>         |      |  |
| D2C4 - 1   | 4023 | Evidence Theory-Based Cooperative Spectrum Sensing in Multi Antenna Cognitive Radio System<br>Md. Tahidul Islam, Muhammad Sajjad Khan and Insoo Koo  |
| D2C4 - 2   | 4032 | PAPR Reduction of OFDM System Using CondeX Matrix Based SLM Method with Low Computational Overhead<br>Md. Moshir Rahman, Muhammad Sajjadur Rahim, Md. Nur-Al-Safa Bhuiyan and Sabbir Ahmed   |
| D2C4 - 3   | 4060 | Design and Evaluation of a Novel UWB Wearable Textile Antenna for Body Area Network<br>Kawshik Shikder and Farhadur Arifin   |
| D2C4 - 4   | 4070 | A Comparative analysis of the characterization methods for submicron silicon wave guide propagation loss<br>Mohammad Istiaque Reja, Jobaida Akhtar, Md. Jahedul Isalm, Muhammad Nouman Malik, Md Asif Iqbal, Shamim Ahmed                                    |
| <b>Technical Session : Day 2 – Parallel Session D (D2D1)</b> |      |  |
| <b>11 December 2015</b>                                      |      |  |
| <b>Venue : CSE 302</b>                                       |      | <b>Time: 11:30 AM – 12:30 PM</b>   |
| <b>Session Title : Semiconductor and Solar Cells</b>         |      |  |
| D2D1 - 1   | 5010 | Optimization of Indium Gallium Nitride Quantum Dots for Absorbing Light from Solar Spectra<br>Sadia Sultana and Md. Shah Alam  |
| D2D1 - 2   | 5017 | Study on the Prospects of Sb <sub>2</sub> Te <sub>3</sub> Back Surface Field in ZnCdS/ZnCdTe Thin Film Solar Cell<br>Md. Muin Uddin, Md. Sharafat Hossain and Nowshad Amin   |
| D2D1 - 3   | 5030 | Analytical Approach of J-V Characteristics of CdTe Based Thin Film Solar Cells Including Voltage and Space Dependent Electric Field in the Absorber Layer<br>Protik Biswas, Abdullah Sakib Hasan, Ashiq Been Rahim, Aman Ullah and Md. Iqbal Bahar Chowdhury |

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| D2D1 - 4  | 5031 | Effect of Dislocation Density on the Performance of InGaN-Based MJ Solar Cell:Analytical Approach<br>Ibne Sabid, Md. Soyaeb Hasan, Md. Fahim-Al-Fattah, Ibrahim Mustafa Mehedi and Md. Rafiqul Islam |
| D2D1 - 5  | 5035 | Effects of Photon Recycling on the Properties of p+ n GaAs Solar Cell<br>Sadi Mohammad, Injammaul Islam Chowdhury, Md. Sherajul Islam and Ashraful Ghani Bhuiyan                                     |
| <b>Technical Session : Day 2 – Parallel Session D (D2D2)</b><br><b>11 December 2015</b> |      |  |
| <b>Venue : CSE 301</b>  |      | <b>Time: 11:30 AM – 12:30 PM</b>   |
| <b>Session Title : Renewable Energy - I</b>   |      |  |
| D2D2 – 1  | 6031 | Efficient PV Array Modelling by Analyzing PV System (cell/module/array) Based on MATLAB<br>Abu Naim Rakib Ahmed, Khalid Nowaz, Jarin Tasnim and Nashrah Afroze                                       |
| D2D2 – 2  | 6045 | An Accurate and Efficient Solar Tracking System using Image Processing and LDR Sensor<br>Md. Hanif Ali Sohag, Md. Mahmudul Hasan, Mst. Mahmuda Khatun and Mohiuddin Ahmad                            |
| D2D2 – 3  | 6046 | Effects of Different Solar Radiation on the Efficiency of GaInP2/GaAs/Ge based multi junction solar cell<br>Syed Nazmus Sakib, Syeda Puspita Mouri, Zannatul Ferdous, Abu Kowsar and M.Shamim Kaiser |
| D2D2 – 4  | 6055 | Renewable Energy Based Hybrid Power System: the Best Way to Keep the World Pollution Free from GHG<br>Md. Nurunnabi and N. K. Roy  |
| <b>Technical Session : Day 2 – Parallel Session D (D2D3)</b><br><b>11 December 2015</b> |      |  |
| <b>Venue : ECE 219</b>  |      | <b>Time: 11:30 AM – 12:30 PM</b>   |
| <b>Session Title : Computer Network and Communication Engineering</b>                   |      |  |
| D2D3 - 1  | 1062 | GSM and GPS Based Intelligent Method to Track Movement and Detect Collision and Rollover of Wheelchairs<br>Hasan Uz Zaman, Anika Zaman, A S M Faruk Abdullah and Tamina Islam Khan                   |

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| D2D3 - 2  | 1043 | A Low Hop Distance Hierarchical Interconnection Network<br>Muhammad Hafiz Sohaini, M.M. Hafizur Rahman, Rizal Mohd Nor,<br>Tengku Mohd Tengku Sembok, M. A. H. Akhand and Yasushi Inoguchi          |
| D2D3 - 3  | 1017 | A Survey on Interconnect Encoding for Reducing Power Consumption,<br>Delay and Crosstalk<br>Sujan Kumar Saha, Bulbul Ahmed and Jiangjiang Liu   |
| D2D3 - 4  | 1072 | Modified Bus Invert Encoding to Reduce Capacitive Crosstalk Power and<br>Inductive Noise<br>Bulbul Ahmed, Sujan Kumar Saha and Jiangjiang Liu   |
| <b>Technical Session : Day 2 – Parallel Session D (D2D4)</b><br><b>11 December 2015</b> |      |   |
| <b>Venue : IEM 214</b>  |      | <b>Time: 11:30 AM – 12:30 PM</b>  |
| <b>Session Title : VLSI Design, Instrumentation and Measurements</b>                    |      |   |
| D2B4 - 1  | 3033 | Analysis of Common-Mode Rejection Ratio of a CMOS Differential<br>Amplifier Considering All the Non-idealities<br>Madiha Amina, Protik Biswas, Aman Ullah and Md. Iqbal Bahar<br>Chowdhury          |
| D2B4 - 2  | 3034 | Implementation and Evaluation of an Efficient Clock Distribution<br>Network For Deep-Submicron Technology<br>Md. Abdur Rahman, Md. Mamunur Rahman and Farhadur Arifin                               |
| D2B4 - 3  | 3037 | Microcontroller Based Self Sustaining Automatic Traffic Light Control<br>Using Speed Breaker<br>Tawhida Akand, Sadeka Sultana, Jahedul Islam and Mrinmoy Dey  |
| D2B4 - 4  | 3039 | Password Protected Multiuser Wireless Electronic Noticing System by<br>GSM with Robust Algorithm<br>Sayidul Morsalin, Md Abdur Rahman, Md Abu Bakar Siddiqe, Prattay<br>Saha and Md. Reduanul Halim |
| <b>Technical Session : Day 2 – Parallel Session E (D2E1)</b><br><b>11 December 2015</b> |      |   |
| <b>Venue : CSE 302</b>  |      | <b>Time: 2:30 PM – 3:30 PM</b>  |
| <b>Session Title : Database and Natural Language Processing</b>                         |      |   |
| D2E1 - 1  | 1074 | Efficient Index Computation for Array Based Structured Data<br>Md Abu Hanif Shaikh, Mehnuma Tabassum Omar and K.M. Azharul<br>Hasan   |

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|----------|------|--|
| D2E1 - 2 | 7033 | BQAS: A Bilingual Question Answering System<br>Sanjidul Hoque, Mohammad Shamsul Arefin and Mohammad Moshiul Hoque  |
| D2E1 - 2 | 2023 | A Novel Dual Purpose Spatial Domain Algorithm for Digital Image Watermarking and Cryptography Using Extended Hamming Code<br>Sudip Ghosh, Sayandip De, Santi P Maity and Hafizur Rahaman |
| D2E1 - 4 | 1042 | EaChOff: Chunk Offset Compression Scheme for High Dimensional Data based on Extendible Multidimensional Array<br>K. M. Azharul Hasan and Md. Rakibul Islam                               |

**Technical Session : Day 2 – Parallel Session E (D2E2)**  
11 December 2015

**Venue : CSE 301** **Time: 2:30 PM – 3:30 PM**

**Session Title : Electro Magnetic Structure and Filter Design**

|          |      |  |
|----------|------|--|
| D2E2 - 1 | 4009 | Design of O-PCF structure for sensing applications with high relative sensitivity<br>Kawsar Ahmed, Sayed Asaduzzaman, Md. Faizul Huq Arif and Monir Morshed                        |
| D2E2 - 2 | 4020 | Security in Cooperative Spatial Multiplexing System with Zero-Forcing Filtering<br>Dilip Kumar Sarker, Md. Zahurul Islam Sarker and Md. Shamim Anower                              |
| D2E2 - 3 | 4063 | Observation of Low-pass Performance from Novel Trapezoidal Slotted Dumbbell Shape EBGs<br>S. M. Shakil Hassan, Md. Nurunnabi Mollah and Khandkar Raihan Hossain                    |
| D2E2 - 4 | 4078 | Microstrip Asymmetric Couple-Line Bandpass Filter Design With Great Matching, Low Insertion Loss and Enhanced Passband<br>Shakhawat Parvez, Nazmus Sakib and Md. Nurrannabi Mollah |
| D2E2 - 5 | 4080 | Low Insertion Loss, High Selectivity and Very Wide Stopband Microstrip Low Pass Filters<br>Shakhawat Parvez, Nazmus Sakib and Md. Nurrannabi Mollah                                |

**Technical Session : Day 2 – Parallel Session E (D2E3)**  
11 December 2015

**Venue : ECE 219** **Time: 2:30 PM – 3:30 PM**

**Session Title : Antenna Engineering**

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|          |      |   |
|----------|------|---|
| D2E3 - 1 | 4045 | Wideband Planar Monopole Antenna for LTE, GSM, Bluetooth, WiMAX, DCS, PCS, and GPS Mobile Terminals.<br>Md. Rahinur Rahman, Sumyeya Sabrin, Khaled Mahbub Morshed and Md. Mostafizur Rahman                                     |
| D2E3 - 2 | 4061 | Effective Modeling of Microstrip Patch Antenna with Circular EBG Structure<br>Md. Anwarul Quader, Minar Ashiq Tishan and Md. Masud Rana   |
| D2E3 - 3 | 4071 | Effect of Complementary Triangular Split Ring Resonator on Microstrip Patch Antenna<br>Sunanda Roy, Swadesh Poddar and Md. Abdus Samad  |
| D2E3 - 4 | 4074 | A High-Gain Slot-Loaded Microstrip Patch Antenna Fed by a Half-Width Microstrip Line for 5.5 and 5.8 GHz Wi-Fi/WiMAX Applications<br>Debabrata KumarKarmokar, Khaled Mahbub Morshed, Md. Selim Hossain and Md. Nurunnabi Mollah |
| D2E3 - 5 | 4076 | Aluminum Nitride based Wideband Patch Antenna for Multiband Wireless Applications<br>Swadesh Poddar, Sourav Roy, Sunanda Roy and Md. Tanvir Hasan   |

**Technical Session : Day 2 – Parallel Session E (D2E4)**  
**11 December 2015**

**Venue : IEM 214**

**Time: 2:30 PM – 3:30 PM**

**Session Title : Cloud Computing and Assistive Technology**

|          |      |   |
|----------|------|---|
| D2E4 - 1 | 1036 | Optimal Task Scheduling in Cloud Computing Environment: Meta Heuristic Approaches<br>Tripti Mandal and Sriyankar Acharyya                     |
| D2E4 – 2 | 1051 | A Novel Trust Measurement System for Cloud-based Marketplace<br>Sudipta Singha Roy, Tamjid Haque Sarker and M. M. A. Hashem                   |
| D2E4 – 3 | 1007 | 3rd Hand: A Device to Support Elderly and Disabled Person<br>Ummay Habiba, Shiuly Barua, Faisal Ahmed, Golap Kanti Dey and Kazi Tanvir Ahmmed |
| D2E4 – 4 | 1015 | Assisted Vehicle Driving Embedded with Autonomous Security System<br>Nur Mohammad, Md. Kausar Hamid Miji and Prodipto Chowdhury               |

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| <b>Technical Session : Day 2 – Parallel Session F (D2F1)</b> |      |  |
|--|------|--|
| <b>11 December 2015</b>                                      |      |  |
| <b>Venue : CSE 302</b>                                       |      | <b>Time: 4:15 PM – 5:00 PM</b>   |
| <b>Session Title : Smart grid and Distributed generation</b> |      |  |
| D2F1 - 1   | 6006 | Studying the Impacts of Cyber-attacks on Smart Grid<br>Tanzim Meraj, Shaela Sharmin and Asif Mahmud  |
| D2F1 - 2   | 6030 | Power Distribution Scheme Using Smart Meter, Perspective Bangladesh<br>Md. Noor Hossain, Jannatul Ferdous, K. M. Ahsanuzzaman, Farhan<br>Fuad and Abdul Wahed  |
| D2F1 - 3   | 6053 | Multi-agent System Modeling for managing limited distributed generation<br>of Microgrid<br>Mirajul Islam, Abu Md. Safiul Alam and Choton Kanti Das   |
| <b>Technical Session : Day 2 – Parallel Session F (D2F2)</b> |      |  |
| <b>11 December 2015</b>                                      |      |  |
| <b>Venue : CSE 301</b>                                       |      | <b>Time: 4:15 PM – 5:00 PM</b>   |
| <b>Session Title : Renewable Energy – II</b>                 |      |  |
| D2F2 - 1   | 6016 | Production of Transportation fuel from Municipal Solid waste<br>Md. Alauddin, Shimul Barua, Md. Abdul Mannan Akanda, A.K.M.<br>Enamul Hoque, and Md. Jiyaul Kabir  |
| D2F2 – 2   | 6025 | Enhancement of Device Performance with Optimized Absorber Layer in<br>CIGS Solar Cell<br>Sharmin Aktar Chowdhury and Md. Shah Alam   |
| D2F2 - 3   | 6029 | A New Prediction Model for Solar Irradiance using Ant Colony<br>Optimization and Neural Network<br>Md. Shahid Iqbal, Md. Monirul Kabir, Md. Imran Hassan, Md. Janibul<br>Alam Soeb, Md. Ataullah Mishkat and Vobes Ray |
| <b>Technical Session : Day 2 – Parallel Session F (D2F3)</b> |      |  |
| <b>11 December 2015</b>                                      |      |  |
| <b>Venue : ECE 219</b>                                       |      | <b>Time: 4:15 PM – 5:00 PM</b>   |
| <b>Session Title : Power Electronics and Machine Drives</b>  |      |  |
| D1A3 - 1   | 3008 | Mitigation of Thermally Induced Crosstalk Noise by Dynamically<br>Adjusting Driver Strength<br>Md Mustafizur Rahman, Pankaj Bhowmik and Selahattin Sayil   |
| D1A3 - 2   | 3014 | Implementation of Multiple Renewable Sources Using Multi Input Dual<br>Output DC-DC Boost Converter for Hybrid Electric Vehicle<br>Tanvir Ahmed, Md Aminul Hoque, Md. Abid Hossain, Tushar Kumar                       |

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|---|------|--|
|   |      | Kha, S.M Hasanuzzaman and Tafikul Islam  |
| D1A3 - 3  | 3030 | Artificial Neural Network based Soft-Starter for Induction Motor<br>Sharith Dhar, Tuton Mallick and Jubaer Khan  |
| <b>Technical Session : Day 2 – Parallel Session F (D2F4)</b><br><b>11 December 2015</b> |      |  |
| <b>Venue : IEM 214</b>  |      | <b>Time: 4:15 PM – 5:00 PM</b>   |
| <b>Session Title : Graphene Characteristics and Technologies</b>                        |      |  |
| D2F4 - 1  | 5019 | Realistic Edge Shape Effects on the Vibrational Properties of Graphene Nanoribbons<br>Md. Sherajul Islam, Ashraful Ghani Bhuiyan and Akihiro Hashimoto   |
| D2F4 - 2  | 5021 | Analytical Drain Current Model for Graphene Metal-Oxide semiconductor Field-Effect Transistor<br>Sudipta Bardhan, Manodipan Sahoo and Hafizur Rahaman  |
| D2F4- 3   | 5024 | An Approach to Determine Bandgap Energy in Graphene under Shear Strain Condition<br>Md. Delwar Hossain, Abu Bucker Siddik, Md. Shamim Sarker, Muhammad Mainul Islam and Md. Rafiqul Islam      |
| <b>Technical Session : Day 3 – Parallel Session G (D3G1)</b><br><b>12 December 2015</b> |      |  |
| <b>Venue : CSE 302</b>  |      | <b>Time: 9:00 AM – 10:00 AM</b>  |
| <b>Session Title : Features Extraction from Biosignals</b>                              |      |  |
| D3G1 - 1  | 2016 | Alpha Band Dependency of EEG Signal on Different Stimulation of Brain for Human Computer Interaction<br>Md. Kamrul Hasan, Nahid Al Mahmud, Md. Shazzad Hossain, Mohiuddin Ahmad                |
| D3G1 - 2  | 2030 | A Mathematical Approach to Determine the Work-done from EMG Analysis<br>Farzana Khanam and Mohiuddin Ahmad   |
| D3G1 - 3  | 2031 | Continuous Heart Rate and Body Temperature Monitoring System using Arduino UNO and Android Device<br>Md. Asaduzzaman Miah, Mir Hussain Kabir, Md. Siddiquir Rahman Tanveer and M. A. H. Akhand |
| D3G1 - 4  | 2035 | A New Approach to Extract Features from ECG Signals<br>Muhammad Sheikh Sadi, Subroto Debnath, Fahim Firoje Al Jami and G.  |

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|  |      | M. Mahmudur Rahman   |
| D3G1 - 5   | 2013 | Independent Component Analysis for EOG artifacts minimization of EEG signals using kurtosis as a threshold<br>Kazi Aminul Islam and Gleb V. Tcheslavski    |
| <b>Technical Session : Day 3 – Parallel Session G (D3G2)</b><br>12 December 2015 |      |  |
| <b>Venue : CSE 301</b>   |      | <b>Time: 9:00 AM – 10:00 AM</b>  |
| <b>Session Title : Communication Technology</b>                                  |      |  |
| D3G2 - 1   | 4019 | A New Mu-Negative Metamaterial<br>Sikder Sunbeam Islam, Mohammad Rashed Iqbal Faruque, Rezaul Azim and Mohammad Tariqul Islam                              |
| D3G2 - 2   | 4024 | A Metamaterial Based Triangular Cloak<br>Sikder Sunbeam Islam, Mohammad Rashed Iqbal Faruque, Mohammad, Tariqul Islam and Rezaul Azim                      |
| D3G2 - 3   | 4031 | Enhanced Wi-Fi Direct Power Saving with Power Control for the Mobile Phone<br>Nam Gon Kim, Hyun Hak Cho, Chang Min Eun and Ok Hyun Jeong                   |
| D3G2 - 4   | 4033 | Energy-Efficient Cellular Communications Powered by Smart Grid Technology<br>Imtiaz Nasim, Mostafa Zaman Chowdhury and Md. Syadus Sefat                    |
| <b>Technical Session : Day 3 – Parallel Session G (D3G3)</b><br>12 December 2015 |      |  |
| <b>Venue : ECE 219</b>   |      | <b>Time: 9:00 AM – 10:00 AM</b>  |
| <b>Session Title : Optimization and Evolutionary Computation</b>                 |      |  |
| D3G3 - 1   | 1077 | Solving Capacitated Vehicle Routing Problem with Route Optimization using Swarm Intelligence<br>M. A. H. Akhand, Zahrul Jannat, Tanzima Diba and Al-Mahmud |
| D3G3 - 2   | 1032 | Optimizing Preprocessing Method of Recursive-BKZ Lattice Reduction Algorithm<br>Md. Mokammel Haque and Josef Pieprzyk                                      |

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| D3G3 - 4  | 1039 | Longest Common Subsequence using Chemical Reaction Optimization<br>Zarrin Tasnim Asha, Rezoana Ahmed and Md. Rafiqul Islam  |
| D3G3 - 5  | 1054 | Toward Number Recognition System : A Non-stationary Signal Analyzing Approach through SVM Algorithm<br>Debarati Nath and Mohiuddin Ahmad  |
| <b>Technical Session : Day 3 – Parallel Session G (D3G4)</b><br><b>12 December 2015</b> |      |   |
| <b>Venue : IEM 214</b>  |      | <b>Time: 9:00 AM – 10:00 AM</b>   |
| <b>Session Title : Wireless Networks</b>  |      |   |
| D3G4 –1   | 4016 | Performance Analysis of Large Scale ZigBee Network Design Through Geometric Structure<br>MD. Jaminul Haque Biddut, Nazrul Islam, Mehedy Hasan, Rafsan Jany and Asma Islam Swapna                    |
| D3G4 –2   | 4047 | On the Architectures of RF Based Underwater Wireless Sensor Networks for Intruder Detection<br>Musbiha Binte Wali and Md. Farhad Hossain  |
| D3G4 - 3  | 4064 | Receiver Initiated Multi-channel Medium Access Control Protocol for Cognitive Radio Network<br>Amran Hossain, Sahelee Sultana and Md. Obaidur Rahman  |
| D3G4 –4   | 4069 | Opportunistic System Approach for Capacity Enhancement and Congestion Mitigation in Advanced Wireless Networks<br>Kazi Nawshad Azam and Mostafa Zaman Chowdhury                                     |
| D3G4 - 5  | 4087 | Outage Capacity Analysis of Cluster-based Forwarding Scheme for Body Area Network using Nano-electromagnetic Communication<br>Fariha Afsana, Muhammad R Ahmed, Shamim Al Mamun and M. Shamim Kaiser |