

## Program Schedule

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### Day 1: May 29 (Thursday) 2014

#### **Reporting for Conference**

Time: 10:00AM to 03:30PM

Venue: University Lobby

#### **Inauguration**

Time: 03:30PM to 04:20PM

Venue: UIU Auditorium

#### **Video presentation by sponsors of ICDRET 2014**

Time: 04:20 PM to 04:50 PM

Venue: UIU Auditorium

#### **Snacks/Tea break**

Time: 05:00PM to 05:30PM

Venue: UIU Ex- Library

#### **Plenary Session P1** Venue: UIU Auditorium

Time: 05:30PM to 06:00PM

#### **Plenary Session P2** Venue: UIU Auditorium

Time: 06:00PM to 06:30PM

**Day 2: May 30 (Friday) 2014**

**Technical Sessions A1-A3 (Time: 9:00AM-10:30AM)**

Session A1, Venue: Room-211

Time: 9:00AM-10:30AM

**PV Applications**

	<b>Paper Title</b>	<b>Authors</b>
1	A Two-Seater Light-Weight Solar Powered Clean Car: Preliminary Design and Economic Analysis	Sanjana Ahmed, Ahmed Zenan, Mosaddequr Rahman
2	Savings of Electricity Consumption through Solar Based Recharging Station for Power Assisted Pedal Rickshaw in Chittagong	Sujoy Barua, Md. Mahamudul Hasan
3	Potential Rooftop Distribution Mapping using Geographic Information Systems (GIS) for Solar PV Installation: A Case Study for Dhaka, Bangladesh	Taskin Jamal, S.M. Ferdous, Sayedus Salehin
4	Performance evaluation of a PV powered solar dryer	Akil Ahammed, Mohammad Tawheed Kibria, Md. Sayeed-Ur-Rahim Mahadi, Nasif Shams, Saiful Huque
5	Commercially Feasible Solar Water Pumping System Effective for Sustainable Rural Development	Sujib Sutradhar, Md. Kamal Hossaine
6	Assessment and Evaluation of Solar Irrigation System in Bangladesh	Deen Muhammad, Mukib Mosleh, Shakir-ul Khan

Session A2, Venue: Room-206

Time: 9:00AM-10:15AM

**Biomass and Biogas**

	<b>Title</b>	<b>Authors</b>
1	Stability Analysis of Standalone Biogas Power Plants in Poultry Farms of Bangladesh	Asif Islam, Mohammad Islam, Mohammad Islam, Enamul Basher
2	Bio-Energy Resources – Contribution Towards Development of Rural Bangladesh	A S M Monjurul Hasan
3	Feasibility Analysis of Deploying Biogas Plants for Producing Electricity and Bio-fertilizer Commercially at Different Scale of Poultry Farms in Bangladesh	Mohammad Islam, Asif Islam, Mohammad Islam, Enamul Basher
4	A Sustainable Energy Model Focusing Renewable Energy: A Case Study for Poultry Farms in Bangladesh	Mohammad Islam, Asif Islam, Mohammad Islam, Enamul Basher
5	A Feasibility Study on Installation of Solid Waste Fuelled Power Plant in Dhaka City Corporation	Apu Banik, Ashraful Haq Rony, Md.Monirul Islam

Session A3, Venue: Auditorium

Time: 9:00AM-10:30AM

**Control and Circuit**

	<b>Title</b>	<b>Authors</b>
1	Transient Stability Enhancement of Fuel Cell System using D-STATCOM	Md. Ashifur Rahman, Mohammad Hasanuzzaman Shawon, Subarto kumar Ghosh, Shimul Kanti Nath
2	Improved Electronic Load Controller and Synchronizer Unit for Mini Grid Connection	Paras Karki, Rojesh Dahal, Brijesh Adhikary, Ramesh Maskey
3	DSP based Implementation of Fuzzy-PI Electronic Load Controller for Self-Excited Induction Generator	Ashok Kumar, Jayant Sukhwani, S. P. Singh
4	Efficient Load and Charging Method for Solar Powered Home Lighting System of Bangladesh	Taufikul Islam, Abdul Awal
5	Advanced Decentralized DER Control for Islanded Microgrids	Jahangir Hossain, Apel Mahmud, Tareq Aziz, Hemanshu Pota, Mithulanathan Nadarajah
6	A Control Method of Wind Power System Using a Doubly Fed Wound Rotor Induction Generator and Suppression of Tower Shadow Effect	Eiichi Sakasegawa, Takahiro Miyakawa, Kichiro Yamamoto, Katsuji Shinohara

**Tea break**

Time: 10:30AM to 11:00AM

Venue: UIU Roof-Top Garden

**Technical Sessions B1-B3 (11:00AM-12:30PM)**

Session B1, Venue:Room-211

Time: 11:00AM-12:15PM

**Mini and Micro Grid Systems**

	<b>Title</b>	<b>Authors</b>
1	Deployment of Renewable Energy Technologies in Bangladesh:Technology Roadmap for Grid-connected PV Systems	A S M Monjurul Hasan
2	Load Carrying Capability of Renewable Energy Sources of Bangladesh Power System	Md. Khurram Monir Rabby, Nahid Al Masood, Muhammad Mobaidul Islam, Nabeela Kauser
3	DC Nanogrids: A Low Cost PV Based Solution for Livelihood Enhancement for Rural Bangladesh	M. Rezwan Khan, Edward Brown
4	Demand Management for Isolated Mini-Grids Supplied by Renewable Generation	Peter Boait, Joseph Snape
5	Solar Diesel Hybrid Mini-Grid Design Considerations: Bangladesh Perspective	ASM Mominul Hasan, Shahriar Ahmed Chowdhury

Session B2, Venue: Room-206

Time: 11:00AM-12:30PM

**Biomass and Biogas**

<b>Title</b>	<b>Authors</b>
1 Variation of Biogas Production with Different Factors in Poultry Farms of Bangladesh	Mohammad Islam, Asif Islam, Mohammad Islam
2 Options for biogas production in combating climate change in Rangpur District, Bangladesh	Md. Monzer Hossain Sarker, Tamanna Hossen, Md. Abdur Razzaque
3 Karoch ( <i>Pongamia pinnata</i> )- An alternative source of biofuel in Bangladesh	Md. Ahiduzzaman, AKM Sadrul Islam
4 A Comparative Study on Anaerobic Co-Digestion of Kitchen Waste with Sewage Sludge and Cow Manure	Shahinur Rahaman, Salma Iqbal, Abu Yousuf
5 Feasibility Study on Electricity Generation from Poultry Litter Based Biogas in Bangladesh	ASM Mominul Hasan, Mohammad Khan, Raqibul Mostafa
6 Cultivation of <i>Chlorella vulgaris</i> with Organic Carbon Sources	Kausar Jahan, Sarah Bauer, Stephanie Moore, Kassandra Grime, Andrea McFarland

Session B3, Venue: Auditorium

Time: 11:00AM-12:30PM

**Control and Circuit**

<b>Title</b>	<b>Authors</b>
1 Design of an Optimal Placement Algorithm for Large Scale Photovoltaic in Sub-Transmission Networks	Shahariar Kabir, Olav Krause, Ashraf Haider
2 Single-Phase Grid-Tie Photovoltaic Inverter Using Maximum Power Point Tracking with Flyback Converter	Ahmed Sony Kamal Chowdhury, K. M. A Salam, M. Abdur Razzak
3 A Three Level Solar Panel System with an Automated Solar Tracker	Mosaddequr Rahman, H. M. Moniruzzaman, Munia Patwary
4 Modelling and Simulation of an Efficient Charge Controller for Photovoltaic System with Maximum Power Point Tracking	Mohammad Nasim Imtiaz Khan, Md. Zaidid Khan, Dewan Fahim Noor, Adib Nahiyani, Md. Ehsanul Haque, Shammya Shananda Saha, Md Rifat Kaiser Rachi, Md. Ziaur Rahman Khan
5 Sun Tracking Schemes for Photovoltaic Panels	Marzia Hoque Tania, Md. Samiul Alam
6 Design of a Wind Power Generation System using Permanent Magnet Synchronous Machine along with a Boost Regulator	Taohid Latif, M Razzak

**Prayer break and Lunch**

Time: 12:30PM to 02:30PM

Venue: UIU Ex- Library

**Presentation by the Co-sponsors of ICDRET-2014**

Time: 2:30PM to 3:00PM

Venue: Auditorium

**Technical Sessions C1-C3 (Time: 3:00PM-4:30PM)**

**Session C1, Venue: Room-211**

**Time: 3:00PM-4:15PM**

**Hybrid Systems**

	<b>Title</b>	<b>Authors</b>
1	Prospect of Decentralized Hybrid Power Generation in Bangladesh Using Biomass, Solar PV & Wind	Mohammad Wahidur Rahman, Md. Shafayat Hossain, Ahmedullah Aziz, Farseem M Mohammedy
2	Solar PV-Diesel Hybrid Mini Cold Storage for Rural Bangladesh	M. Rezwan Khan, Sufi Iqbal
3	Optimized Model of a Solar PV-Biogas-Diesel Hybrid Energy System for Adorsho Char Island, Bangladesh	Sayedus Salehin, A.K.M. Sadrul Islam, Rawhatul Hoque, Mushfiqur Rahman, Aynul Hoque, Emrul Manna
4	Optimization of Hybrid Renewable Energy System for a Base Tranceiver Station (BTS) in Bangladesh	Aasim Ullah
5	Design of a Photovoltaic–Biogas Hybrid Power Generation System for Bangladeshi Remote Area Using Homer Software	Md. Moniruzzaman Tanim, Nawshad Ahmed Chowdhury, Mirza Md. Mahbubur Rahman, Jannatul Ferdous

**Session C2, Venue: Room-206**

**Time: 3:00PM-4:15PM**

**Hydro**

	<b>Title</b>	<b>Authors</b>
1	Micro/Mini Hydropower for Rural Communities in Nepal: Status and Development Trends	Madan Thapaliya
2	Prospects of Utilization of Reversible Pump Turbines in Nepalese Hydropower Plants	Nikhel Gurung
3	Low Head Hydro Power Generation Using Road Side Canal Water Potential in Bangladesh	Satyajit Mojumder, Pankaj Sutradhar, Sourav Saha, M.M. Rahman
4	Pump-as-Turbine (PAT) for Small Scale Power Generation: A Comparative Analysis	Ihteaz Muhaimen Hossain, S.M. Ferdous, Sayedus Salehin, Taskin Jamal, Ahmed Mortuza Saleque
5	Analysis of the Flow Condition in a Cross Flow Turbine	Supriya Koirala

Session C3, Venue: Auditorium

Time: 3:00PM-4:15PM

**Control and Circuit**

	<b>Title</b>	<b>Authors</b>
1	Matlab Simscape Simulation of an Open Voltage Algorithm based Maximum Power Point Tracker for Battery Charging PV System	Muhammad Alam, Mahir Asif Mohammad, Riku Chowdhury
2	A Review of the State of the Art of Generators and Power Electronics for Wind Energy Conversion Systems	Syed Naime Mohammad, Nipu Kumar Das, Saikat Roy
3	Introducing Dual Axis Solar Tracker with Reflector to Increase Optimal Electricity Generation in Bangladesh	Twisha Titirsha, Abu Raihan Mohammad Siddique, Farhana Afrin, Syeda Sanjidah, Asif Rabbani
4	Maximum Power Point Tracking Using Artificial Intelligence	MKM Rahman
5	High Efficient LED Light Driver Circuit with Temperature Compensation for SHS	Mahmud Ibrahim, Shahriar Ahmed Chowdhury

**Tea**

Time: 04:30PM to 05:00PM

Venue: UIU Ex-Library

**Conference Dinner**

Time: 07:30 PM

Venue: Baton Rouge

**Day 3: May 31 (Saturday) 2014**

**Technical Sessions D1-D3 (Time: 9:00AM-10:30AM)**

Session D1, Venue: Room-211

Time: 9:00AM-10:15AM

**Policy, PS and SHS**

	<b>Title</b>	<b>Authors</b>
1	Life Time Costs in Solar Home Systems	Walter Commerell, Rudy Mueller, V. Shanmuganandam
2	Policy, planning and implementation practices in Hydropower sector of Nepal	Juben Bhaukajee, Hari Neopane, Suraj Baral
3	An Extensive Overview of Present Situation of Renewable Energy Practices in Bangladesh	Md. Nahid Hossain Khan, A. M. Rahman
4	Optimizing Bangladeshi Solar Home System Efficiency Using Two-Position Mount	Abir Ahmed, Meghan Reha
5	Solar Home System in Bangladesh Prospects, Challenges and Constraints	Al Amin

Session D2, Venue: Room-206

Time: 9:00AM-10:15AM

**PV Technology**

	<b>Title</b>	<b>Authors</b>
1	Optimizing Anode Microstructure of Intermediate Temperature Solid Oxide Fuel Cell Based on Gadolinium Doped Ceria.	Al Jumlat Ahmed
2	Power Calculation of GaN/AlGa <sub>N</sub> Based Thermo-Photovoltaic Heterostructure	Sumit Narayan Saurov
3	The Effect of Irradiation on Different Parameters of Monocrystalline Photovoltaic Solar Cell	Md. Nazrul Islam, Mohammad Ziaur Rahman, Sharif Mominuzzaman
4	Current Photovoltaic Technologies and Prospect of Thin Film Photovoltaic in Bangladesh	Mayn Uddin Tomal, Khandker Ahmed, Aasim Ullah, Alamgir Mollah Robin
5	Simulation of I-V Characteristics of Quantum Dot Based Solar Cell: Stability Estimation	Ashraful Haider Chowdhury, Mubdiul Islam Rizu, Jerin Tasnim

Session D3, Venue: Auditorium

Time: 9:00AM-10:00AM

**Control and Circuit**

	<b>Title</b>	<b>Authors</b>
1	Arc Suppression in Moderate Voltage DC Grid for Solar PV Applications	M. Rezwan Khan, Mohammad Khan
2	Design and implementation of a Grid Connected Single Phase Inverter for Photo Voltaic System	Md. Jahangir Hossain, Md. Rafiqul Islam
3	Investigation of Z-source inverter for Fuel Cell System in a Zero Energy Building	Muhammad Musthafa Roomi, Ali Maswood
4	A Simulink Based Generalized Model of Photovoltaic Cell/Array	Aneek Islam, Md. Iqbal Chowdhury

**Tea break**

Time: 10:30AM to 11:00AM

Venue: UIU Ex-Library

**Technical Sessions E1-E3 (Time: 11:00AM-12:30PM)**

Session E1, Venue: Room-211

Time: 11:00AM-12:30PM

**Socio Economic Aspects**

	<b>Title</b>	<b>Authors</b>
1	Renewable Energy Programs for Rural Electrification: Experience and Lessons from India	Debajit Palit, Gopal Sarangi
2	Developing 3Rs (Reduce, Reuse & Recycle) Strategy for Waste Management for Urban Areas in Bangladesh: A Socioeconomic and Climate Mitigation Option	Ahmedul Chowdhury
3	Renewable Energy Developments in the Philippines	Donnalyn Cabaces, Allan De Villa, Manilyn Vicencio
4	A Model of a Renewable Electricity System for Telecom Base Stations in Rural Bangladesh	Shanshil Shibly, Nafis Akand, K. M. A Salam, Hafiz Rahman
5	Living in Harmony: Designing a Multi-functional Education Facility that Has Positive Sustainable Impact on Environment & Society	Mitavachan Hiremath, Christian Vansomeren, Johnmary Migadde, Mohamed Abdelrazik, Samuel Goda, Hans Holtorf
6	Swarm Electrification - Suggesting a Paradigm Change through Building Microgrids Bottom-up	Sebastian Groh, Daniel Philipp, Brian Edlefsen Lasch, Hannes Kirchhoff

Session E2, Venue: Room-206

Time: 11:00AM-12:30PM

**PV Technology**

	<b>Title</b>	<b>Authors</b>
1	Perspective of Heterojunction GaAs Solar Cell and Inspection of Its Efficiency Using Device Simulator	Farhan Chowdhury, Asif Taraque, Yeasir Arafat



2	An Intricate Analysis on Increasing the Efficiency of Germanium Solar Cell and Its Illustration Using TCAD	Farhan Chowdhury, Asif Taraque, Yeasir Arafat
3	Efficiency Calculation of Single Junction Silicon Solar Cell at Different Doping Concentrations	Farhan Chowdhury, Asif Taraque, Yeasir Arafat
4	Influence of Thermal Annealing on CdTe Thin Film Deposited by Thermal Evaporation Technique	Kaji Rahman, Faiazul Haque, Naveed Khan, Mohammad Islam, Mohammad Alam, Zeid Al Othman, Kamaruzzaman Sopian, Nowshad Amin
5	Growth Optimization of ZnS Thin Films by RF Magnetron Sputtering as Prospective Buffer Layer in Thin Film Solar Cells	Faiazul Haque, Kaji Rahman, Mohammad Islam, Md Akhtaruzzaman, Kamaruzzaman Sopian, Nowshad Amin
6	Design and Optimization of Dye-Sensitized Solar Cell Fabrication	Syed Abdullah, Mohammad Rezaul Karim, Taslim Raza, Abdulrahman Al-Ahmari, Ashraful Islam

Session E3, Venue: Auditorium

Time: 11:00AM-12:30PM

**Wind, Wave and Tide**

<b>Title</b>	<b>Authors</b>	
1	Possibility of a Tidal Power Plant in Sandwip Island of Bangladesh	Amit Sikder, Md. Tariqur Rahman, Nishat Khan, Aminul Hoque
2	Wind Energy Assessment using Weibull Distribution in Coastal Areas of Bangladesh	Subarto Kumar Ghosh, Mohammad Hasanuzzaman Shawon, Md. Ashifur Rahman, Shimul Kanti Nath
3	Assessment of Wind Energy Potential by Weibull Distribution in Isolated Islands	A. K. Azad, M. M. Alam, S. M. Ameer Uddin, Sukanta Kumar Mondal
4	Monthly and Seasonal Assessment of Wind Energy Potential in Coastal Area of Bangladesh	Asif Islam, Mohammad Islam, Mohammad Islam
5	Estimation of Annual Energy Delivered by a Variable Speed Wind Generating System using Historical Wind Data	Mohammed Haque
6	Wind Power Generation Scale Mapping of Bangladesh at Different Turbine Heights	Asif Islam, Mohammad Islam, Mohammad Islam

**Prayer break and Lunch**

Time: 12:30PM to 02:30PM

Venue: UIU Ex-Library

**Technical Sessions F1-F2 (Time: 2:30PM-4:00PM)**

Session F1, Venue: R-211

Time: 2:30PM-4:00PM

**General**

<b>Title</b>	<b>Authors</b>	
1	Construction, Fabrication and Performance Analysis of an	Md. Sayeed-Ur-Rahim Mahadi, Muhammad

	Indigenously Built Serpentine Type Thermosyphon Solar Water Heater	Faisal Hasan, Akil Ahammed, Mohammad Tawheed Kibria, Saiful Huque
2	Study of Utilization of Wind Induced Vibrations in Generation of Electricity	Abhiram Aithal, Anirudh Deshpande, Dinesh P A
3	Feasibility Analysis and Prospect of Applications of Micro Concentrated Solar Power in Bangladesh	Abu Sowad, Mohammad Faizul Karim
4	A Forecast of Wind Farm Performance at Different Locations of Bangladesh	Mohammad Islam, Asif Islam, Mohammad Islam, Abu Mohammad Sadeque
5	Socio-economic impact of using roof top solar panels- a case study conducted in the rural areas of greater Sylhet, Bangladesh	Choudhury Wahid, Kazi Wohiduzzaman, F. M. Mahafugur Rahman
6	Design of a wind farm in the coastal Island Sandwip, Bangladesh	Choudhury Wahid, F. M. Mahafugur Rahman, Kazi Wohiduzzaman

Session F2, Venue: R-206

Time: 2:30PM-4:00PM

### **PV Technology and Geothermal**

	<b>Title</b>	<b>Authors</b>
1	Geothermal Energy and Its Scope in Bangladesh	Al Shahriar, Md. Hasanuzzaman, Syed Tanvir Faisal
2	Temperature Dependent Performance Analysis of Intersubband Thermophotovoltaic Structure	Sumit Narayan Saurov
3	Effect of Strain on the Efficiency of InGaN-based Multijunction Solar Cell	Md. Rahman, Md. Islam
4	Performance Optimization of Planar Heterojunction Organic Solar Cells	Sudipta Chakma, Md. Saiful Islam, Md. Rafiqul Islam
5	Analysis of Phase Separation in InGaN Epitaxy for Advanced Solar Cells	Soyaeb Sujan, Md. Rafiqul Islam
6	Current-Voltage Characteristics of CdS/CdTe Thin Film Solar Cells: An Analytical Approach	Md. Monirul Haque, Md. Moshir Rahman, Md. Iqbal Chowdhury

### **Tea**

Time: 04:00PM to 05:00PM

Venue: UIU Ex-Library

### **Professor Rashid Best Paper Presentation Award**

Time: 04:30PM to 05:00PM

Venue: UIU Auditorium

End of the conference

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