CONFERENCE PROGRAM SUMMARY

Oct 19, 2014 Sunday			Oct 20, 2014 Monday			Oct 21, 2014 Tuesday			Oct 22, 2014 Wednesday		
Start	**End**	**Program**	**Start**	**End**	**Program**	**Start**	**End**	**Program**	**Start**	**End**	**Program**
08:30	17:00	Registration	08:00	17:00	Registration	08:00	17:00	Registration	08:00	17:00	Registration
09:00	10:30	Tutorial (Khaled Ahmed)	08:00	08:10	Opening Ceremony	08:00	08:45	Keynote (Alan Perlstein)	08:00	08:20	Paper Session
10:30	10:45	Coffee Break	08:10	08:20	Short Invited Speech (Chris Abele)	08:45	09:30	Keynote (Dr. Don Tan)	08:20	08:40	Paper Session
10:45	12:15	Tutorial (Omar Abdel-Baki)	08:20	08:30	Short Invited Speech (Tom Barrett)	09:30	10:15	Keynote (Dushan Boroyevich)	08:40	09:00	Paper Session
12:15	13:15	Lunch Time	08:30	09:15	Keynote (Thomas Jans)	10:15	10:30	Coffee Break	09:00	09:20	Paper Session
13:15	14:45	Tutorial (Jason Katcha)	09:15	10:00	Keynote (Robert Yaniello)	10:30	10:50	Paper Session	09:20	09:40	Paper Session
14:45	15:00	Coffee Break	10:00	10:15	Coffee Break	10:50	11:10	Paper Session	09:40	10:00	Coffee Break
15:00	16:30	Tutorial (Furkan Dundar)	10:15	11:00	Keynote (Mark Ehsani)	11:10	11:30	Paper Session	10:00	10:20	Paper Session
16:30	18:00	Tutorial (Ranga Tallam, Yogesh Patel)	11:10	11:30	Paper Session	11:30	11:50	Paper Session	10:20	10:40	Paper Session
			11:30	11:50	Paper Session	11:50	12:10	Paper Session	10:40	11:00	Paper Session
			11:50	12:10	Paper Session	12:10	13:30	Lunch Time	11:00	11:20	Paper Session
			12:10	12:30	Paper Session	13:30	13:50	Paper Session	11:20	11:40	Paper Session
			12:30	12:50	Paper Session	13:50	14:10	Paper Session	11:40	12:00	Paper Session
			12:50	13:50	Lunch Time	14:10	14:30	Paper Session	12:10	13:30	Lunch Time
			13:50	15:00	Poster Sessions	14:30	14:50	Paper Session	13:30	13:50	Paper Session
			15:00	17:00	Industry Panel	14:50	15:10	Paper Session	13:50	14:10	Paper Session
						15:10	15:30	Coffee Break	14:10	14:30	Paper Session
						15:30	17:30	Industry Panel	14:30	14:50	Paper Session
						17:00	18:00	Poster Session	14:50	15:10	Paper Session
									15:10	16:30	Poster Session
17:00	19:00	Welcome Reception				19:00	22:00	Gala Dinner	16:30	17:30	Closing Ceremony

CONFERENCE PROGRAM ON SUNDAY 19 OCT, 2014

Date: Oct 19, 2014 - AM	**5TH FLOOR BALLROOM FOYER**
08:30–16:30	**Registration**
Date: Oct 19, 2014	**4TH FLOOR** **HALL: WRIGHT BALLROOM**
	TUTORIALS
09:00–10:30	**Future of High Voltage DC Transmission**, *Khaled Ahmed, University of Aberdeen, UK*
10:30-10:45	**COFFEE BREAK**
10:45–12:15	**Electrohydraulic Hybrid Mining Shovel**, *Omar Abdel-Baqi, Caterpillar, USA*
12:15-13:15	**LUNCH BREAK**
13:15–14:45	**FPGA-based Digital Control Development with Matlab/Simulink and Altera DSP Builder**, *Jason Katcha, GE Healthcare, USA*
14:45-15:00	**COFFEE BREAK**
15:00–16:30	**Durability of PEM Fuel Cells**, *Furkan Dundar, Meliksah University, TURKEY*
16:30–18:00	**System Interactions and Application Issues for Regenerative AC Drives**, *Ranga Tallam and Yogesh Patel, Rockwell Automation, USA*
Date: Oct 19, 2014	**LOBBY LEVEL** **HALL: EMPIRE BALLROOM**
17:00-19:00	WELCOME RECEPTION

CONFERENCE PROGRAM ON MONDAY 20 OCT, 2014

Date: Oct 20, 2014 - AM	**5TH FLOOR BALLROOM FOYER**
08:00-17:00	**Registration**
Date: Oct 20, 2014 - AM	**5TH FLOOR** **HALL: CYRSTAL BALLROOM**
08:00-08:10	**Opening Ceremony**
08:10-08:20	**Short Invited Speech,** *Chris Abele, Milwaukee County Executive*
08:20-08:30	**Short Invited Speech,** *Tom Barrett, Mayor of Milwaukee*
KEYNOTES	**5TH FLOOR** **HALL: CYRSTAL BALLROOM**
08:30-09:15	**"Transforming the Grid from the Distribution System Out",** *Thomas Jahns, UW-Madison* *Session Chairs: Adel Nasiri, Ilhami Colak, Fujio Kurokawa*
09:15-10:00	**"Customer and Market Trends in The Electrical Power Industry"**, *Robert Yanniello, Eaton Corporation* *Session Chairs: Yoshitaka Nakanishi, Tadashi Suetsugu, Halil Ibrahim Bulbul*
10:00-10:15	**COFFEE BREAK**
10:15-11:00	**"Sustainable Energy & Vehicle Engineering",** *Mark Ehsani, Texas A&M University College Station* *Session Chairs: Youcef Soufi, Ramazan Bayindir, Igor Stamenkovic*
	ORAL PRESENTATIONS
Date: Oct 20, 2014 - AM	**5TH FLOOR** **HALL: JUNEAU**
TOPIC: Current and Future Developments in Renewable Energy	**SESSION CHAIR: Youcef Soufi**
11:10-11:30	**ID: 214 Adaptation of Renewable Based Power Plants to the Energy Market Using Battery Energy Storage Systems** *Emre Durna* (METU), Eda Uz Logoglu (Middle East Technical University), Cem Ozgur Gercek (TUBITAK MAM Energy Institute), Deniz Parlak (Gama Energy Inc)*
11:30-11:50	**ID: 267 Electrical Responses of Piezoelectric Device** *Asnor Ishak* (UPNM), Elya Mohd Nor (Universiti Pertahanan Nasional Malaysia (UPNM)), Mohd Taufiq Ishak (Universiti Pertahanan Nasional Malaysia (UPNM)), Nik Ghazali Nik Daud (Universiti Pertahanan Nasional Malaysia (UPNM))*
11:50-12:10	**ID: 299 Maximum Power Point Tracking Using Fuzzy Logic Control for Photovoltaic System** *Youcef Soufi* (Tebessa University)*
12:10-12:30	**ID: 308 Analysis of Touch Potentials in Solar Farms** *Eduardo Enrique* (Stantec Consulting Ltd.), Jose Walsh (Stantec Consulting Ltd.)*
12:30-12:50	**ID: 189 A Review on Developments in the Design and Analysis of Wind Turbine Drive Train** *Christopher Izelu* (FUPRE), Iyabo Oghenevwaire (FUPRE)*
12:50-13:50	**LUNCH BREAK**

Date: Oct 20, 2014 - AM	5TH FLOOR	HALL: OAK
TOPIC:		SESSION CHAIR: Ály Flores
11:10-11:30	**ID: 295 Hidden Wind Farms Potential for Residential Households Having Roof-Mounted Wind Arrester** *Amin Amini* (IUPUI), Hesam E. Shoori J. (Oregon State University), Mustafa Kamoona (IUPUI)*	
11:30-11:50	**ID: 297 Energy Storage Techniques for Hydraulic Wind Power Systems** *Masoud Vaezi* (Purdue School Of Engineering), Afshin Izadian ()*	
11:50-12:10	**ID: 294 Control of a Hydraulic Wind Power Transfer System Under Disturbances** *Masoud Vaezi* (Purdue School Of Engineering), Afshin Izadian ()*	
12:10-12:30	**ID: 4 Maglev Wind Generator** *Santoshkumar Chaturvedi* (Sardar Patel College Of Engineering), Mahesh Utekar (Sardar Patel College Of Engineering)*	
12:30-12:50	**ID: 19 Harmonic Fields Machine – The Low Cost, High Efficiency Alternative to a Conventional Generator with Frequency Converter for Wind Energy Applications** *Vlado Ostovic* (University Of Applied Sciences)*	
12:50-13:50	**LUNCH BREAK**	

Date: Oct 20, 2014 - AM	5TH FLOOR	HALL: KILBOURN
TOPIC:		SESSION CHAIR: Tanmoy Maity
11:10-11:30	**ID: 53 Wind Farm Two-Level Hierarchical Control for Energy Optimization And Management** *Elkhatib Ibrahim* (University Of Picardie Jules V)*	
11:30-11:50	**ID: 57 GSC and FFT Control Strategy for Harmonic Voltage Elimination of Grid-Connected DFIG Wind Turbine** *Maximiliano Ferrari* (UPV)*	
11:50-12:10	**ID: 65 Policy Trends of Renewable Energy in Korea** *Suhyeon Han* (Green Technology Center), Hyun Woo Shin (Green Technology Center)*	
12:10-12:30	**ID: 69 Performance Analysis of Conventional PSS and Fuzzy Controller for Damping Power System Oscillations** *Hasan Ul Banna* (Btu Germany), Alvaro Luna (Universidad Politecnica De Catalunya), Pedro Rodrıguez (), Ana Cabrera (Upc Spain), Shaoqing Ying (Brandenburg Technical University Germany), Hamidreza Ghorbani (Upc Spain)*	
12:30-12:50	**ID: 70 Investigation On The Application Of Generator Circuit-Breakers In Power Plants Employing Doubly-Fed Induction Generators** *Alejandro Marmolejo* (ABB Switzerland Ltd.), Mirko Palazzo (ABB Switzerland Ltd.), Maurizio Delfanti (Politecnico Di Milano)*	
12:50-13:50	**LUNCH BREAK**	

Date: Oct 20, 2014 - AM	4TH FLOOR	HALL: WALKER
TOPIC:		SESSION CHAIR: Thomas Jahns
11:10-11:30	**ID: 114 Prediction of Critical Generator Buses in Transient Stability Using Synchrophasor Data** *Yunhui Wu (University Of Maine), Mohamad Musavi* (University Of Maine, Orono), Paul Lerley (RLC Engineering), Brian Conroy (Central Maine Power)*	
11:30-11:50	**ID: 121 Anaerobic Co-Digestion of Cafeteria, Vegetable and Fruit Wastes for Biogas Production** *Muhammad Rashed Al Mamun* (Kumamoto University, Japan), Shuichi Torii (Kumamoto University, Japan)*	
11:50-12:10	**ID: 130 Energy Storage in a Motor** *John Doffing* (Wichita State University), Visvakumar Aravinthan (Wichita State University), Hootan Mehraein (Wichita State University), Kim Cluff (Wichita State University)*	
12:10-12:30	**ID: 146 An Active Power Self-Synchronizing Controller for Grid-Connected Converters Emulating Inertia** *Daniel Remon* (Abengoa), Antoni Mir (Abengoa), Elyas Rakhshani (Abengoa), Ignacio Candela (Technical University Of Catalonia), Pedro Rodriguez (Universidad Politecnica De Catalunya)*	
12:30-12:50	**ID: 148 Neural Network Based a Two Phase Interleaved Boost Converter for Photovoltaic System** *Donny Radianto* (Student Member IEEE), Masahito Shoyama (Kyushu University)*	
12:50-13:50	**LUNCH BREAK**	

Date: Oct 20, 2014 - AM	4TH FLOOR	HALL: MITCHELL
TOPIC:		SESSION CHAIR: Wahiba Yaici
11:10-11:30	**ID: 170 A Laboratory Environment for Real Time Testing Of Energy Management Scenarios** *Francisco Huerta* (Institute IMDEA Energy), Jorn Gruber (Institute IMDEA Energy), Milan Prodanovic (Institute IMDEA Energy), Pablo Matatagui (Institute IMDEA Energy), Tokhir Gafurov (Institute IMDEA Energy)*	
11:30-11:50	**ID: 178 Multi-Agent Simulator of Incentive Influence on PV Adoption** *Andrea Borghesi* (University Of Bologna), Michela Milano (University Of Bologna DISI)*	
11:50-12:10	**ID: 183 Reactive Power Minimization of Dual Active Bridge DC/DC Converter with Triple Phase Shift Control Using Neural Network** *Yasen Harrye* (University Of Aberdeen), Ahned Aboushady (University Of Aberdeen), Khaled Ahmed (University Of Aberdeen)*	
12:10-12:30	**ID: 188 Control of Active and Reactive Powers in Three Phase Inverters for Grid-Tied Photovoltaic Systems Under Unbalanced Voltages** *Maria Mantilla* (UIS), Johann Petit (UIS), Gabriel Ordónez Plata (Industrial University Of Santander), David Rincon (Universidad Industrial De Santander), Oscar Sierra (Universidad Industrial De Santander)*	
12:30-12:50	**ID: 194 Prediction of the Performance of A Solar Thermal Energy System Using Adaptive Neuro-Fuzzy Inference System** *Wahiba Yaici* (Natural Resources Canada/Canmetenergy), Evgueniy Entchev (Natural Resiurces Canada / Canmetenergy)*	
12:50-13:50	**LUNCH BREAK**	

Date: Oct 20, 2014 - AM	LOBBY LEVEL	HALL: EMPIRE BALLROOM BALCONIES
13:50-15:00	Poster Session	

Date: Oct 20, 2014 - AM	LOBBY LEVEL	HALL: EMPIRE BALLROOM
15:00-17:00	**Industry Panel 1 (2 hours), *Challenges and Solutions for Renewable Energy Intermittency*,** This panel will explore diverse concepts for energy storage, control , machine and system design to overcome the dynamics and energy scheduling challenges posed by the different availability cycles of renewable energy. **Panel Participants:** Dan Ionel, Regal Beloit Chris Kuhl, ZBB Alberto Guerrero Agos, Ingeteam Jeff Anthony, M-WERC Tony Miller, S&C	

POSTER SESSION-1 (Oct 20, 2014 MONDAY, 13:50-15:00) HALL: EMPIRE BALLROOM BALCONIES

TOPIC: **SESSION CHAIR: Mirko Palazzo**

ID: 263 Modeling and Evaluation of Combined Photovoltaic-Battery Systems in the Decentralized German Power Generation
Stefan Sieling (RWTH Aachen (Germany)), Julia Welsch (), Hans-Josef Allelein (Institute for Reactor Safety and Reactor Technology)*

ID: 302 Use of Artificial Neural Networks for Real-Time Prediction of Heave Displacement in Ocean Buoys
Hesam E. Shoori J. (Oregon State University)*

ID: 9 A Dynamic Photo-Voltaic Integral for a Domestic Load Using ANFIS Controller
Arulmozhiyal Murugan (Sona College of Technology), ARUL Prakash (Anna University), Murali Muniraj (Sona College of Technology)*

ID: 14 Formulating Policies for Mitigating Greenhouse Gases
Oludolapo Olanrewaju (Tshwane University of Technolo), Josiah Munda (CEEP, TUT), Adisa Jimoh (Electrical department, TUT)*

ID: 17 Design, Characteristic Analysis of PM Wind Generator Based on SMC Material for Small Direct-Drive Wind Energy Conversion System
Pedram Asef (AEET)*

ID: 28 Placement of Distributed Energy Storage via Multidimensional Scaling and Clustering
Arthur Barnes (University of Arkansas), Juan Balda (University of Arkansas)*

ID: 30 Analysis of Sustainable and Competitive Energy System
Michela Longo (Politecnico di Milano), Cristian Lazaroiu (University POLITEHNICA of Bucharest), Mariacristina Roscia (University of Bergamo), Mario Pagano (University of Naple "Federico II")*

ID: 32 Coaxial Magnetic Gear Analysis and Optimization
Carlos Neves (Universidade Federal Do Pampa), Ály Flores (UFRGS)*

ID: 33 Robust Battery Fuel Gauge Algorithm Development, Part 1: Online Parameter Estimation
Balakumar Balasingam (University of Connecticut), Gopi Avvari (University of Connecticut), Bharath Pattipati (University of Connecticut), Krishna Pattipati (University of Connecticut), Yaakov Bar-Shalom (University of Connecticut)*

ID: 39 Case Study of Lights Energy Saving
Alberto Dolara (Politecnico di Milano), Michela Longo (Politecnico di Milano), Mariacristina Roscia (University of Bergamo)*

ID: 42 Wind Energy Potential Assessment In Order to Produce Electrical Energy for Case Study in Divandareh, Iran
Abas Hosseini (University of Tehran), Vahid Rasouli (University of Isfahan), Simin Rasouli (University of Agder)*

ID: 45 Arrangement of Fibonacci Number Photovoltaic Modules for Power Generation Woods
*Toshihiro Nishiwaki * (Department of Electrical Engin), Toshiaki Yachi(Tokyo University of Science)*

ID: 47 A Study of Interconnections between Renewable Energy Source and 22.9 kV-Y Distribution Power System in Korea
Hyeong-Seung An (Korea Electric Power Co.), Seung-Yun Hyeon (KEPCO), Myeong Ho Choi (KEPCO), Sung Hwan Bae (KEPCO), In Seong (KEPCO), Nam Hun Song (KEPCO)*

ID: 48 Research & Development of the Ground Source Heat Reference Map
Ayako Funabiki (Nihon University), Takashi Sato (Nihon University), Masahito Oguma (Nihon University)*

ID: 52 Control of Solar System's Battery Voltage based on State of Charge Estimation (SOC)
Amin Hajizadeh (University of Shahrood), Amir Hossein Shahirinia (University of Wisconsin-Milwaukee), Saeed Arabameri (), David Yu (University of Wisconsin-Milwaukee)*

ID: 56 Proposals for Flexible Operation of Multi-Terminal DC Grids: Introducing Flexible DC Transmission System (FDCTS)
Kumars Rouzbehi (), Arash Miranian (BPJ), Ignacio Candela (Technical University of Catalonia), Alvaro Luna (), Pedro Rodriguez ()*

ID: 58 Energy Management System based on IEC61131 Automation Project Methodology
Renato Castro (Faculdade Senai De Tecnologia), Luciano Chaves (Faculdade Senai De Tecnologia), Hermes Gonçalves Jr. (Faculdade Senai De Tecnologia), Carlos Pereira (UFRGS), Fausto Líbano (UFRGS)*

CONFERENCE PROGRAM ON TUESDAY 21 OCT, 2014

Date: Oct 21, 2014 - AM	5TH FLOOR BALLROOM FOYER
08:00-17:00	**Registration**

Date: Oct 21, 2014 - AM	5TH FLOOR	HALL: CYRSTAL BALLROOM
	KEYNOTES	
08:00-08:45	**"Energy Industry and Research"**, *Alan Perlstein, Mid-West Energy Research Consortium .* *Session Chairs: Seref Sagiroglu, Dan Ionel, Sevki Demirbas*	
08:45-09:30	**"Emerging Trends for Power Electronics"**, *Dr. Don Tan, Northrop Grumman Aerospace Systems* *Session Chairs: Istvan Nagy, Ersan Kabalci, Haruhi Eto*	
09:30-10:15	**"Power Sharing and Stability in AC Systems with Large Penetration of Renewables"**, *Dushan Boroyevich, Virginia Tech* *Session Chairs: Sheldon Williamson, Rosario Miceli, Yogesh Patel*	
10:15-10:30	**COFFEE BREAK**	

ORAL PRESENTATIONS

Date: Oct 21, 2014 - AM	5TH FLOOR	HALL: JUNEAU
TOPIC:		**SESSION CHAIR: Michela Longo**
10:30-10:50	**ID: 271 An Experimental Study on Modeling of Transient Response and Parameters Identification for Mn-Type Li-Ion Battery with Temperature Dependency** *Natthawuth Somakettarin* (Osaka University), Tsuyoshi Funaki (Osaka University)*	
10:50-11:10	**ID: 282 A New Approach for Relationship Between Daylight and Indoor Illumination Level** *Ramazan Avaz* (), Ismail Nakir (), Hakan Akca (Yildiz Technical University), Ali Aider (), Muqdesem Tanrioven ()*	
11:10-11:30	**ID: 292 Hybrid Microgrid Testbed Involving Wind/Solar/Fuel Cell Plants a Design and Analysis Testbed** *Ersan Kabalci* (Nevsehir University), Ramazan Bayindir (Gazi University), Eklas Hossain ()*	
11:30-11:50	**ID: 36 Robust Battery Fuel Gauge Algorithm Development, Part 0: Normalized OCV Modeling Approach** *Bharath Pattipati (University Of Connecticut), Balakumar Balasingam* (University Of Connecticut), Gopi Avvari (University Of Connecticut), Krishna Pattipati (University Of Connecticut), Yaakov Bar-Shalom (University Of Connecticut)*	
11:50-12:10	**ID: 239 System Analysis of a Small Scale PMSG-Based Grid Tied Wind Turbine System Using Back-To-Back Converter** *Sadik Ozdemir* (Yeditepe University), Canbolat Ucak (Yeditepe University)*	
12:10-13:30	**LUNCH BREAK**	

Date: Oct 21, 2014 - PM	5TH FLOOR	HALL: JUNEAU
TOPIC:		**SESSION CHAIR: Balakumar Balasingam**
13:30-13:50	**ID: 34 Robust Battery Fuel Gauge Algorithm Development, Part 2: Online Battery-Capacity Estimation** *Balakumar Balasingam* (University Of Connecticut), Gopi Avvari (University Of Connecticut), Bharath Pattipati (University Of Connecticut), Krishna Pattipati (University Of Connecticut), Yaakov Bar-Shalom (University Of Connecticut)*	
13:50-14:10	**ID: 35 Robust Battery Fuel Gauge Algorithm Development, Part 3: State Of Charge Tracking** *Balakumar Balasingam* (University Of Connecticut), Gopi Avvari (University Of Connecticut), Bharath Pattipati (University Of Connecticut), Krishna Pattipati (University Of Connecticut), Yaakov Bar-Shalom (University Of Connecticut)*	
14:10-14:30	**ID: 43 An Organic Rankine Cycle System For Solar Thermal Power Applications** *Kuanrong Qiu* (Canmetenergy)*	
14:30-14:50	**ID: 117 Determination of Iron Loss Considering Spatial Harmonics and Tooth Pulsation Effects for Cage Motor** *Vinay Jaiswal* (Crompton Greaves)*	
14:50-15:10	**ID: 274 Design and Development of Solar Flat Mirror and Heat Storage System** *Evren Toygar (Dokuz Eylul University), Tufan Bayram (Solarux Alternative Energy Systems), Oğuzhan Daş* (), Alper Yazar (), Mustafa Taştan (), Hüseyin Çalmaz (), Ömer Kaya ()*	
15.10-15.30	**COFFEE BREAK**	

Date: Oct 21, 2014 - AM	5TH FLOOR	HALL: OAK
TOPIC:		SESSION CHAIR: Tiefu Zhao
10:30-10:50	**ID: 55 An Indirect Method for Maximum Power Point Tracking for Photovoltaic Arrays** *Aleck Leedy* (Murray State University), Kristen Garcia (Murray State University)*	
10:50-11:10	**ID: 64 Current Sensorless Control of a Cascaded H-Bridge Photovoltaic System** *Nathan Marks* (University Of Newcastle), Terry Summers (University Of Newcastle), Robert Betz (University Of Newcastle)*	
11:10-11:30	**ID: 190 Justification and Conceptual Design of Solar-Powered Traffic Signal Systems** *Bill Diong* (Southern Polytechnic State Uni)*	
11:30-11:50	**ID: 228 Analysis Of Current Sensorless AC-DC Converter** *Motoshi Matsunaga* (Nagasaki University), Fujio Kurokawa (Nagasaki University, Kazuki Yoshimura ()*	
11:50-12:10	**ID: 238 A Versatile Test Bench for Grid Integration Investigations of Back-to-Back Wind Energy Conversion Systems** *Hang Yin (TU Berlin), Moritz Dereschkewitz (), Dennis Wagenitz (TU Berlin), Sibylle Dieckerhoff* (TU Berlin)*	
12:10-13:30	**LUNCH BREAK**	

Date: Oct 21, 2014 - PM	5TH FLOOR	HALL: OAK
TOPIC:		SESSION CHAIR: Khaled Ahmed
13:30-13:50	**ID: 72 Data Processing Framework with Analytic Infrastructure for Future Smart Grid** *Jiro Yamazaki* (The University Of Aizu), Daishi Yoshino (The University Of Aizu), Hideyuki Fukuhara (The University Of Aizu), Hajime Tokura (The University Of Aizu), Takafumi Hayashi (The University Of Aizu), Jiro Iwase (The University Of Aizu), Joseph Tsai (The University Of Aizu), Shinji Kikuchi (The University Of Aizu), Masanari Murasawa (The University Of Aizu), Yuya Itoh (The University Of Aizu)*	
13:50-14:10	**ID: 80 Simulation Analysis on the Operation Model of Household Power Generation and Storage** *Sho Aihara* (The University Of Tokyo), Ryuji Matsuhashi ()*	
14:10-14:30	**ID: 84 A Control Strategy for DC-Link Voltage Control Containing PV Generation and Energy Storage -An Intelligent Approach** *Kumars Rouzbehi (), Arash Miranian* (BPJ), Jose Ignacio Candela (), Alvaro Luna (), Pedro Rodriguez ()*	
14:30-14:50	**ID: 167 Sensorless Multi-Loop Control of Phase-Controlled Series-Parallel Resonant Converter** *Ahmed Aboushady (University Of Aberdeen), Khaled Ahmed* (University Of Aberdeen)*	
14:50-15:10	**ID: 246 Improved Optimal Sizing of Hybrid PV/Wind/Battery Energy Systems** *Mustafa Baysal* (Yildiz Technical University), Gunes Gursoy ()*	
15.10-15.30	**COFFEE BREAK**	

Date: Oct 21, 2014 - AM	5TH FLOOR	HALL: KILBOURN
TOPIC:		SESSION CHAIR: Amel Lachichi
10:30-10:50	**ID: 90 No-Load Power Losses and Motor Overheating Effects Versus PWM Switching Frequencies** *Andrew Strandt* (Rockwell Automation), Jiangang Hu (), Lixiang Wei ()*	
10:50-11:10	**ID: 95 Interconnection Between Different DC Technologies at Multi-Terminal HVDC Network** *Ahmed Omran* (Alexandria University), Khaled Ahmed (University Of Aberdeen), Moustafa Hamad (Arab Academy For Science, Technology, And Maritime Transport), Ibrahim Al-Arabawy (Alexandria University)*	
11:10-11:30	**ID: 129 Value-Driven Design and Sensitivity Analysis of Hybrid Energy Systems Using Surrogate Modeling** *Wenbo Du (Idaho National Laboratory), Humberto Garcia* (Idaho National Laboratory), William Binder (Georgia Institute Of Technology), Christiaan Paredis (Georgia Institute Of Technology)*	
11:30-11:50	**ID: 219 Modular Multilevel Converter for Wind Power Generation System Connected to Micro-Grid** *Toshiki Nakanishi* (Nagaoka Universityoftechnology), Jun-İchi Itoh (Nagaoka University Of Tec.), Koji Orikawa ()*	
11:50-12:10	**ID: 287 LCL Filter Resonance Mitigation Technique for Voltage Source Converters** *Adel Nasiri* (University Of Wisconsin Milwaukee), Yogesh Patel (Rockwell Automation), Lixiang Wei ()*	
12:10-13:30	**LUNCH BREAK**	

Date: Oct 21, 2014 - PM	5TH FLOOR	HALL: KILBOURN
TOPIC:		SESSION CHAIR: Milan Prodanovic
13:30-13:50	**ID: 149 The Contribution of PV and Thermal Solar Plants in CCHP Systems to the Reduction of Costs and GHG Emissions in the Residential Sector** *Valentina Panone* (University Of L'Aquila), Michele Anatone (University Of L'Aquila)*	
13:50-14:10	**ID: 153 Simulation and Experimental Study of a Hybrid System for Different Loads** *Zehra Ural Bayrak* (Firat University), Muhsin Tunay Gencoglu (Firat University)*	
14:10-14:30	**ID: 157 Analysis of Massive Integration of Renewable Power Plants Under New Regulatory Frameworks** *Josu Arrinda* (INGETEAM), Jon Andoni Barrena (University Of Mondragon), Miguel Angel Rodriguez (INGETEAM), Alberto Guerrero (INGETEAM)*	
14:30-14:50	**ID: 162 Fuel Cell – Battery Hybrid Systems for Auxiliary Power Units** *Carsten Krupp* (Forschungszentrum Jülich Gmbh), Remzi Samsun (Forschungszentrum Jülich Gmbh), Ralf Peters (Forschungszentrum Jülich Gmbh), Detlef Stolten (Forschungszentrum Jülich Gmbh), Bruno Gnörich (RWTH Aachen University), Sydney Baltzer (RWTH Aachen University)*	
14:50-15:10	**ID: 172 Reconfiguration Algorithm to Reduce Power Losses in Offshore HVDC Transmission Lines** *Ines Sanz Alonso (), Miguel Moranchel Pérez* (University Of Alcalá), Susel Fernandez (), Francisco Javier Rodriguez (), Jorge Perez Morales ()*	
15.10-15.30	**COFFEE BREAK**	

Date: Oct 21, 2014 - AM	4TH FLOOR	HALL: WALKER
TOPIC:		SESSION CHAIR: Koji Orikawa
10:30-10:50	**ID: 165 Dual Loop Control for Eliminating DC-Bias in a DC-DC Dual Active Bridge Converter** *Bhanu Baddipadiga (Missouri S&T), Mehdi Ferdowsi* (Missouri S&T)*	
10:50-11:10	**ID: 166 A Protection Strategy for Fault Detection and Location for Multi-Terminal MVDC Distribution Systems with Renewable Energy Systems** *Mehdi Monadi* (UPC), Cosmin Koch-Ciobotaru (Universitat Politècnica De Cat), Alvaro Luna (Universidad Politecnica De Catalunya), Ignacio Candela (Technical University Of Catalonia), Pedro Rodriguez ()*	
11:10-11:30	**ID: 171 Low-Cost Monitoring System for Solar Farm Using Agent Technology** *Miguel Moranchel Pérez* (University Of Alcalá), Susel Fernandez (), Ines Sanz Alonso (), Francisco Javier Rodriguez (), Jorge Perez Morales ()*	
11:30-11:50	**ID: 317 Robust Current Observer Design for DC-DC Converters** *Rosario Miceli* (University Of Palermo), Gionata Cimini (Universit'A Politecnica Delle Marche), Gianluca Ippoliti (Universita Politecnica Delle Marche), Giuseppe Orlando (Universita Politecnica Delle Marche), Sauro Longhi (Universita Politecnica Delle Marche)*	
11:50-12:10		
12:10-13:30	**LUNCH BREAK**	

Date: Oct 21, 2014 - PM	4TH FLOOR	HALL: WALKER
TOPIC:		SESSION CHAIR: Jiangbiao He
13:30-13:50	**ID: 173 Simulation of a Photovoltaic Panel Supported Real Time Hybrid Electric Vehicle** *Hakan Suyak* (H), Kemal Ersan (Gazi University)*	
13:50-14:10	**ID: 175 The IFOC Based Speed Control of Induction Motor Fed by a High Performance Z-Source Inverter** *Ananda Kumar* (BITS-PILANI)*	
14:10-14:30	**ID: 187 Differential Diffusion Charge Redistribution for Photovoltaic Cell-Level Power Balancing** *Arthur Chang* (MIT, Steven Leeb ()*	
14:30-14:50	**ID: 316 Manufacturing Tolerances Effects on PV Array Energy Production** *Rosario Miceli* (University Of Palermo), Giovanni Cipriani (University Of Palermo), Vincenzo Di Dio (University Of Palermo), Andrea Marcotulli (University Of Palermo)*	
14:50-15:10	**ID: 312 A Survey on Public Awareness Towards Renewable Energy in Turkey** *Melike Ayaz (Gazi University), Erdal Irmak* (Gazi University), Suudan Gok (Gazi University), Almula Sahin (Bilkent University)*	
15.10-15.30	**COFFEE BREAK**	

Date: Oct 21, 2014	LOBBY LEVEL	HALL: EMPIRE BALLROOM
15:30-17:30	**Industry Panel 2, (2 hours)**, ***Renewable Energy Success Stories and Application Examples,*** Many previous panels have delved into the issues faced by renewables in various field applications. This panel will focus on success stories, large and small, described from the experience of the panelists in the areas of technology, economics, and sustainability. **Panel Participants:** Additional Panelist, S&C Igor Stamenokovic, Eaton Yogesh Patel, Rockwell Automation Rajni Burra, GE Ajith Wijenayake, DRS Technologies John Marino , LEM	

Date: Oct 21, 2014 - AM	LOBBY LEVEL	HALL: EMPIRE BALLROOM BALCONIES
17:00-18:00	Poster Session	

Date: Oct 21, 2014 - AM	5TH FLOOR	HALL: CYRSTAL BALLROOM
19:00-22:00	GALA DINNER	

POSTER SESSION-2 (Oct 21, 2014 TUESDAY, 17:00-18:00) HALL: EMPIRE BALLROOM BALCONIES

TOPIC: **SESSION CHAIR: Moein Lak**

ID: 61 Improved Droop Control Method in Microgrid and Its Small Signal Stability Analysis

Wei Cao (Shanghai University;Shanghai University of Electric Power), Hu Su (Shanghai University of Electric Power), jia-lin Cao (Shanghai University), Jing Sun (Shanghai University of Electric Power), Daopei Yang (Shanghai University of Electric Power)*

ID: 67 The Basic Characteristic of Heat and Electricity Combined Generation System Using Biomass Fuel

Oku Masatoshi (University of Miyazaki), Hayashi Noriyuki (University of Miyazaki), Tashima Daisuke (University of Miyazaki), Sakoda Tatsuya (University of Miyazaki)*

ID: 81 Application of Island Microgrid Based on Hybrid Batteries Storage

Yeting Wen (Hunan University), Yuxing Dai (CGN), Xiwei Zhou (CGN Solar Energy Development Co.Ltd), Ye Wang (CGN), Bin Xie (CGN Solar Energy Development Co.Ltd)*

ID: 93 Sliding Modes Control for Voltage Source Converter - Applied in Wind Systems

Kairous Djilali (UQAT), Jean-Jacqu Beaudoin (UQAT), René Wamkeue (UQAT), Mohand Ouhrouche (UQAC)*

ID: 96 Analysis of Distributed Generation Sources and Load Shedding Schemes on Isolated Island Grids Case Study: The Bahamas

Nadia Smith (University of Arkansas), Roy McCann (University of Arkansas)*

ID: 97 DC Distribution Systems – An Overview

Anand Prabhala (Missouri S&T), Bhanu Baddipadiga (Missouri S&T), Mehdi Ferdowsi (Missouri S&T)*

ID: 98 Numerical Study on the Thermal Performance of Tubular Light Pipes under Tropical Climate: Case Study from Jamaica

Dudley Williams (University of the West Indies,), Jean-Francois Dorville (U.W.I Physics Department)*

ID: 100 A 3D Photovoltaic Simulation Tool for Low Concentration and Sun Tracking

Igor Miranda (UFRB), Rodney Guimaraes (Unime), Artur Lima (Unime)*

ID: 101 Speed Control for Direct Drive Permanent Magnet Wind Turbine

Moein Lak (Power Quality Research Group), Vigna Kumaran Ramachandaramurthy (Power Quality Research Group, Dep. of EE., Universiti Tenaga Nasional)*

ID: 109 Design, Testing and Comparison of P&O, IC and VSSIR MPPT Techniques

Moin Hanif (University of Cape Town), Raedani Ronn (University of Cape Town)*

ID: 125 Integrating Flywheel Energy Storage System to Wind Farms-Fed HVDC System via a Solid State Transformer

Raymond Said (Alexandria University, Egypt), Ayman Abdel-Khalik (Alexandria University, Egypt), Amr El-Zwawi (Alexandria University, Egypt), Moustafa Hamad (Arab Academy for Science, Technology, and Maritime Transport)*

ID: 126 A Novel Wind Turbine Concept Based on a Sandwich-Typed PMSG and an Improved Converter

Q Gao (Shanghai Jiao Tong University), F Shi (Department of Electrical Engineering, Shanghai Jiao Tong University), z Tan (School of Electrical and Electronic Engineering, Newcastle University, U.K), X.S Xie Xian (Department of Electrical Engineering, Shanghai Jiao Tong University), W.P Cao (School of Electronics, Electrical Engineering and Computer Science, Queen's Uni), X Cai (Department of Electrical Engineering, Shanghai Jiao Tong University)*

ID: 128 A Comprehensive Analysis Study about Harmonic Resonances in Megawatt Grid-Connected Wind Farms

Gia Minh Thao Nguyen (Waseda University, Japan.), Kenko Uchida (Waseda University, Japan), Kentaro Kofuji (Fuji Electric Co., Ltd.), Toru Jintsugawa (Fuji Electric Co., Ltd.), Chikashi Nakazawa (Fuji Electric Co., Ltd.)*

ID: 145 Distributed FLISR Algorithm for Smart Grid Self-Reconfiguration based on IEC61850

Cosmin Koch-Ciobotaru (Universitat Politècnica de Cat), Mehdi Monadi (UPC), Alvaro Luna (Universidad Politecnica de Catalunya), Pedro Rodriguez (Universidad Politecnica de Catalunya)*

ID: 159 Smart Energy Users in Social Housing by BECA ICT Service

Michele Pastorelli (Politecnico di Torino), Mariapia Martino (Politecnico di Torino), Michele Tartaglia (Politecnico di Torino), Alessandra Guerrisi (Politecnico di Torino)*

ID: 163 Topology Selection for Medium-Voltage Three-Phase SiC Solid-State Transformer

Hossein Sepahvand (), Sachin Madhusoodhanan (), Keith Corzine (), Subhashish Bhattacharya (), Mehdi Ferdowsi (Missouri S&T)*

ID: 269 Determining Regression Constants for Calculating Global Solar Radiation at Jharkhand(India) Region,

Kumari Namrata (NIT JAMSHEDPUR), SP Sharma (NIT JAMSHEDPUR), S.B.L. Seksena (NIT JAMSHEDPUR)*

ID: 318 Parametrical Study of Multilayer Structures for CIGS Solar Cells

Rosario Miceli (University of Palermo), Alessandro Busacca (University of Palermo), Vincenzo Rocca (University of Palermo), Luciano Curcio (University of Palermo), Antonino Parisi (University of Palermo), Alfonso Carmelo Cino (University of Palermo), Riccardo Pernice (University of Palermo), Andrea Ando' (University of Palermo), Gabriele Adamo (University of Palermo), Alessandro Tomasino (University of Palermo), Giovanni Palmisano (University of Palermo), Salvatore Stivala (University of Palermo), Massimo Caruso (), Giovanni Cipriani (University of Palermo), Diego La Cascia (University of Palermo), Vincenzo Di Dio (University of Palermo), Giuseppe Ricco Galluzzo (University of Palermo)*

ID: 321 Control Subsystem Design For Wireless Power Transfer

Rosario Miceli (University of Palermo), filippo Pellitteri (University of Palermo), Valeria Boscaino (University of Palermo), Antonino Oscar Di Tommaso (University of Palermo), Giuseppe Capponi (University of Palermo)*

ID: 313 Heuristic Strategy For Smart Charging Of Plug-In Electric Vehicle In Residential Areas: Variable Charge Power

Harun Turker ()*

ID: 221 Contactless Power Delivery for Mobile Device Charging Applications

A Astrid (National University of Singapore), Qifan Li (National University of Singapore), Yung C. Liang (National University of Singapore)*

ID: 99 Considerations of design of PV systems in Colombia

German Osma Pinto (Industrial University of Santa), Gabriel Ordonez Plata (Industrial University of Santander)*

CONFERENCE PROGRAM ON WEDNESDAY 22 OCT, 2014

Date: Oct 22, 2014 - AM	5TH FLOOR BALLROOM FOYER
08:00-17:00	**Registration**

ORAL PRESENTATIONS

Date: Oct 22, 2014 - AM	5TH FLOOR	HALL: JUNEAU
TOPIC:		**SESSION CHAIR: Mehdi Ferdowsi**
08:00-08:20	**ID: 248 Model Predictive Control of Multi-Terminal DC Grids with Offshore Wind Farms** Mahdi Zarif (), *Arash Miranian* (BPJ)*	
08:20-08:40	**ID: 252 Analysis of Digital Peak Current Control DC-DC Converter** *Fujio Kurokawa (Nagasaki University), Shusuke Maeda* (Nagasaki University), Yudai Furukawa (Nagasaki University)*	
08:40-09:00	**ID: 254 Application of Wide Bandgap Power Devices in Renewable Energy Conversion Systems – Benefits and Challenges** *Jiangbiao He* (Marquette University), Tiefu Zhao (Eaton Corporation), Xin Jing (General Motors Corporation), Nabeel Demerdash (Marquette University)*	
09:00-09:20	**ID: 257 Thermal Management of Power LED System** *Hakan Akca* (Yildiz Technical Univeristy), Yusuf Yasa (), Ramazan Ayaz (), Ali Ajder (), Ismail Nakir (), Mugdesem Tanrioven (), Ali Durusu (Yildiz Technical Univeristy)*	
09:20-09:40	**ID: 320 Experimental Investigation on High Efficiency Real-Time Control Algorithms for IPMSMs** *Rosario Miceli* (University Of Palermo), Massimo Caruso (), Antonino Oscar Di Tommaso (University Of Palermo), Fabio Genduso (University Of Palermo)*	
09.40-10.00	**COFFEE BREAK**	

Date: Oct 22, 2014 - AM	5TH FLOOR	HALL: JUNEAU
TOPIC:		**SESSION CHAIR: Istvan Nagy**
10:00-10:20	**ID: 265 Microgrid Communications: State of the Art and Future Trends** *Adel Nasiri* (University Of Wisconsin Milwaukee), Abedalsalam Bani-Ahmed (UW-Milwaukee), Luke Weber (UW-Milwaukee), Hossein Hosseini (UW-Milwaukee)*	
10:20-10:40	**ID: 288 Novel Approach of Microgrid Control** *Istvan Nagy* (BUTE AAIT), Peter Stumpf (BUTE), István Vajk (BUTE)*	
10:40-11:00	**ID: 325 Back-to-Back MVDC Link for Distribution Systems Active Connection: A Network Study.** *Massimiliano Chiandone* (Chiandone), Giorgio Sulligoi (), Federico Milano (), Giovanni Piccoli (), Paolo Manià ()*	
11:00-11:20	**ID: 225 Performance Study of a Wind-Grid System in a Semi-Arid Region and Major Integration Issues** *Swarna Kumary* (Deakin University)*	
11:20-11:40	**ID: 158 Design and Analysis of Repetitive Controllers for Grid Connected Inverter Considering Plant Bandwidth for Interfacing Renewable Energy Sources** *Mohsin Jamil* (National University Of Science), Rizwan Arshad (NUST), Usman Rashid (NUST), Yasar Ayaz (NUST), Muhmmad Khan (University Of South Australia)*	
11:40-12:00		
12:00-13:30	**LUNCH BREAK**	

Date: Oct 22, 2014 - AM	5TH FLOOR	HALL: JUNEAU
TOPIC:		**SESSION CHAIR: Yusuf Yasa**
13:30-13:50	**ID: 195 Storage Commitment and Placement for an Interconnected Island System with High Wind Penetration, Gotland** *Bahri Uzunoglu* (Uppsala University), Ali Erduman (Upsala University)*	
13:50-14:10	**ID: 232 Design and Analysis of Generator and Converters for Outer Rotor Direct Drive Gearless Small-Scale Wind Turbines** *Yusuf Yasa* (), Erkan Mese (Yildiz Technical University)*	
14:10-14:30	**ID: 272 Partial Shading Fault Diagnosis in PV System with Discrete Wavelet Transform (DWT)** *Mehrdad Davarifar* (MIS LAB), Abdelhamid Rabhi (MIS LAB), Ahmed Hajiaji (MIS LAB), Zahra Daneshifar ()*	
14:30-14:50	**ID: 323 An Economic Study About the Installation of PV Plants Reconfiguration Systems in Italy** *Rosario Miceli* (University Of Palermo), Fabio Viola (University Of Palermo), Pietro Romano (University Of Palermo), Eleonora Riva Sanseverino (University Of Palermo), Marzia Cardinale (University Of Palermo), Giuseppe Schettino (University Of Palermo)*	
14:50-15:10		

Date: Oct 22, 2014 - AM	5TH FLOOR	HALL: OAK
TOPIC: Power Electronics for Renewable Energy Research and Applications		SESSION CHAIR: Tadashi Suetsugu
08:00-08:20	**ID: 251 A Novel Two-Compensation Digital Control DC-DC Converter** *Fujio Kurokawa (Nagasaki University), Yudai Furukawa* (Nagasaki University), Tsuyoshi Higuchi (Nagasaki University), Akihiko Katsuki (Nagasaki University), Ilhami Colak (Gazi University)*	
08:20-08:40	**ID: 118 PEPWM Architectures for Fast Transient Response of Class E Amplifiers in EER System** *Tadashi Suetsugu* (Fukuoka University), Xiugin Wei (Fukuoka University), Shotaro Kuga (Fukuoka University)*	
08:40-09:00	**ID: 273 Input Power Factor Control of High-Frequency-Link AC/DC Converter** *Kazuma Suzuki* (Nagoya Institute Of Technology), Takaharu Takeshita (Nagoya Institute Of Technology)*	
09:00-09:20	**ID: 283 Study of the Suitability of Recently Proposed Quasi-Z Source Inverter for Wind Power Conversion** *Tanmoy Maity* (ISM), H. Prasad (), V. Ranjith Babu ()*	
09:20-09:40	**ID: 286 Approach to Control of Hybrid Renewable Power System on the Basis of Adaptive Control with Local Parametric Optimization** *Viktor Ten* (Nazarabayev University), Vladimir Nikulin (Binghamton University), Dana Sharipova (Nazarbayev University)*	
09.40-10.00	**COFFEE BREAK**	

Date: Oct 22, 2014 - AM	5TH FLOOR	HALL: OAK
TOPIC:		SESSION CHAIR: Ionel Vechiu
10:00-10:20	**ID: 184 Analyzing the Effect of Inverter Efficiency Improvement in Wind Turbine Systems** *Sadik Ozdemir* (Yildiz Technical University), Ugur Selamogullari (Yildiz Technical University), Onur Elma (Yildiz Technical University)*	
10:20-10:40	**ID: 304 Comparison of Different Small Signal Modeling Methods for Bidirectional DC-DC Converter** *Enes Ugur* (Yildiz Technical University), Bulent Vural (Yildiz Technical University)*	
10:40-11:00	**ID: 280 Modular Multilevel Converters with Integrated Batteries Energy Storage** *Amel Lachichi* (ABB Corporate Research Centre)*	
11:00-11:20	**ID: 115 Power Management of Hybrid Fuel Cell and Microturbine Based DG System in Utility Connected Mode** *Sanjeev Nayak* (NMIT Bangalore)*	
11:20-11:40	**ID: 156 An Efficient Reconfiguration Method Based on Standard Deviation for Series and Parallel Connected PV Arrays** *Koray Parlak* (Firat University), Mehmet Karakose (Firat University)*	
11:40-12:00		
12:00-13:30	**LUNCH BREAK**	

Date: Oct 22, 2014 - AM	5TH FLOOR	HALL: OAK
TOPIC:		SESSION CHAIR: Ismail Topaloglu
13:30-13:50	**ID: 20 An All Digital Speed Adaptive Maximum Power Point Tracker for Automotive Photovoltaic Applications** *Sebastian Strache* (RWTH Aachen University), Ralf Wunderlich (RWTH Aachen University), Stefan Heinen (RWTH Aachen University)*	
13:50-14:10	**ID: 22 Feasibility Analysis Design of a PV Grid Connected System for a Rural Electricfication In Ba, Fiji Islands** *Vishal Charan* (Fiji National University)*	
14:10-14:30	**ID: 29 Semi-Activate Supplies of Zigzag-Type Dmfcs With The Channel Paths** *Mio Iijima* (Tokyo University of Science), Toshiaki YACHI (Tokyo University of Science), Toshiyuki Ishikake (Tokyo University of Science)*	
14:30-14:50	**ID: 31 Design and Optimization of Surface Mounted Line Start Permanent Magnet Synchronous Motor Using Electromagnetic Design Tool** *Ismail Topaloglu* (Cankiri Karatekin University)*	
14:50-15:10	**ID: 38 Output Power of 1/3-Phyllotaxis FPM Under Various Stage Shape And Cell Size Conditions** *Kosuke Mukaiyama* (Tokyo University Of Science), Toshiaki Yachi (Tokyo University Of Science)*	

Date: Oct 22, 2014 - AM	5TH FLOOR	HALL: KILBOURN
TOPIC:		SESSION CHAIR: Koray Parlak
08:00-08:20	**ID: 230 A Simple-Novel Indirect Algorithm for Tracking Maximum Power Under Rapid or Slow Irradiation and Temperature Changes** *Mustafa Gokdag* (Karabuk University), Mehmet Akbaba (Karabuk University)*	
08:20-08:40	**ID: 200 Impacts of Wind Energy in-Feed on Power System Small Signal Stability** *Hasan Ul Banna* (BTU Germany), Alvaro Luna (Universidad Politecnica De Catalunya), Pedro Rodriguez (), Shaoqing Ying (Brandenburg Technical University Germany), Hamidreza Ghorbani (UPC Spain)*	
08:40-09:00	**ID: 268 Biogeography-Based Optimization Technique for Maximum Power Tracking of Hydrokinetic Turbines** *Mohamed Shafei* (Department Of Electrical Power Eng. - Faulty Of Engineering, Cairo Univ, Egypt), Doaa Khalil (Faculty Of Engineering - Cairo University), Essam Abu El Zahab (Faulty Of Engineering, Cairo University, Egypt), Mohamed Adel Younes (Mechanical & Electrical Research Institute - National Water Research Center, Egy)*	
09:00-09:20	**ID: 264 Rectifier Efficiency Analysis for DC Distributed Data Centers** *Adel Nasiri* (University Of Wisconsin Milwaukee), Seyed Ahmad Hamidi (UW-Milwaukee), Tiefu Zhao (Eaton Corporation)*	
09:20-09:40		
09.40-10.00	**COFFEE BREAK**	

Date: Oct 22, 2014 - AM	5TH FLOOR	HALL: KILBOURN
TOPIC: Sustainable Technology for Renewable Energy Research and Application		SESSION CHAIR: Yoshitaka Nakanishi
10:00-10:20	**ID: 120 Hybrid Renewable Energy with Membrane Distillation Polygeneration for Rural Households in Bangladesh: Pani Para Village Case Study** *Ershad Ullah Khan* (Royal Institute Of Technology), Andrew Martin (Royal Institute Of Technology)*	
10:20-10:40	**ID: 174 Battery Time of Discharge Setting for Maximum Effectiveness in a Distribution Smart Grid Application** *Nasser Hosseinzadeh* (Electrical And Computer Engine), Peter Wolfs (Cauniversity)*	
10:40-11:00	**ID: 202 Measured Performance and Theoretical Validation of a Concentrator Assisted Solar Distillation System** *Ajay Singh* (NIT, Jamshedpur, India), Yamuan Yadav (Department Of Physics, NIT Jamshedpur, India)*	
11:00-11:20	**ID: 209 Design, Sensitivity Analysis and Fabrication of DC Linear Direct-Drive Motor (LDDM)** *Mojtaba Ghodsi* (123), Nasser Hosseinzadeh (Electrical And Computer Engine), Abdullah Ozer (), Amer Al-Yahmadi (), Mehran Nodari Zadega ()*	
11:20-11:40	**ID: 255 Biomimetic Sealing System with Hydrated Materials For Ocean Current or Tidal Power Generation** *Yoshitaka Nakanishi* (), Yuichi Oka (Kumamoto University), Jason Sanderson (Kumamoto University), Takuro Honda (Kumamoto University), Keiji Kasamura (Kumamoto University), Hidehiko Higaki (Kyushu Sanyo University), Yuta Nakashima (Kumamoto University)*	
11:40-12:00		
12:00-13:30	**LUNCH BREAK**	

Date: Oct 22, 2014 - AM	5TH FLOOR	HALL: KILBOURN
TOPIC:		SESSION CHAIR: Sadik Ozdemir
13:30-13:50	**ID: 75 New Solar Radiation Atlas for Saudi Arabia** *Sulaiman Alyahya* (Qassim University), Mohammad Irfan (Qassim University)*	
13:50-14:10	**ID: 77 A Comparative Performance Analysis of C-Si And A-Si PV Based Rooftop Grid Tied Solar Photovoltaic Systems in Jodhpur** *Vikas Singh* (IIT Jodhpur), Vivek Vijay (IIT Jodhpur), B. Ravindra (IIT Jodhpur), M. Bhatt (CPRI, Bangalore)*	
14:10-14:30	**ID: 85 Research on Operation Optimization Strategy of Grid-Connected PV-Battery System** *Wei Cao* (Shanghai University;Shanghai University Of Electric Power), Yang Du (Shanghai University Of Electri), Lijun Ji (), Xiaoqing Qi ()*	
14:30-14:50	**ID: 92 Flicker Mitigation Planning Solutions in Distributed Wind Power: A Real-Time Simulation Analysis** *Moataz Ammar* (Mcgill), Geza Joos ()*	
14:50-15:10	**ID: 113 Optimal Energy Storage Sizing Based on Wind Curtailment Reduction** *Mohammad Moradzadeh* (Ghent University), Jan Van De Vyver (Ghent University), Lieven Vandevelde (Ghent University)*	

Date: Oct 22, 2014 - AM	4TH FLOOR	HALL: WALKER
TOPIC: Sustainable Technology for Renewable Energy Research and Application		SESSION CHAIR: Yoshitaka Nakanishi
08:00-08:20	**ID: 240 Development of Gasoline Direct Injector Using Giant Magnetostrictive Materials** *Mojtaba Ghodsi* (123), Hamid Rajabzadeh (), Nasser Hosseinzadeh (Electrical And Computer Engine), Nader Garjasi Varzeghani (), Amer Al-Yahmadi (), Abdullah Ozer ()*	
08:20-08:40	**ID: 144 Annealing Effect on Efficiency of Aspilia Africana Flowers Dye Sensitized Solar Cells** *Adenike Boyo* (Lagos State University, Lagos), Henry Boyo (University Of Lagos,Akoka, Nigeria), Sunkanmi Kesinro (Lagos State Universityy, Lagos, Nigeria)*	
08:40-09:00	**ID: 176 Design of an Induction Generator with Copper Squirrel Cage Rotor and Asymetric Slots** *Carlos Nascimento* (UFRGS), Ály Flores (UFRGS)*	
09:00-09:20	**ID: 181 Improved Radiofrequency Energy Harvesting Based on a Rectenna Array System and Its Feasibility Evaluation in Urban Environments** *Jayme Milanezi Junior* (University Of Brasilia), João Paulo Lustosa Da Costa (University Of Brasilia), Edison De Freitas (Federal University Of Santa Maria (UFSM), Santa Maria, Brazil)*	
09:20-09:40	**ID: 218 Sustainable Electric Energy Microgeneration System Based on Electric Eels** *Jayme Milanezi Junior* (University Of Brasilia), João Paulo Lustosa Da Costa (University Of Brasilia), Edison De Freitas (Federal University Of Santa Maria (UFSM), Santa Maria, Brazil), José Antônio Gomes (National Institute Of Amazonian Research, Manaus, Brazil), Renata Schmidt (National Institute Of Amazonian Research, Manaus, Brazil)*	
09.40-10.00	**COFFEE BREAK**	

Date: Oct 22, 2014 - AM	4TH FLOOR	HALL: WALKER
TOPIC:		SESSION CHAIR: Rosario Miceli
10:00-10:20	**ID: 142 Control of A Microgrid-Connected Hybrid Energy Storage System** *Ionel Vechiu* (Estia Institute Of Technology), Aitor Etxeberria (UPV/EHU, Estia), Camblong Haritza (UPV/EHU, Estia), Quentin Tabart (UPV/EHU, Estia)*	
10:20-10:40	**ID: 326 Impact of Distributed Generation on Power Losses on an Actual Distribution Network.** *AMassimiliano Chiandone* (Chiandone), Giorgio Sulligoi (University Of Trieste), Riccardo Campaner (), Alessandro Massi Pavan (University Of Trieste), Paolo Mania (), Giovanni Piccoli ()*	
10:40-11:00	**ID: 322 Reduction of The Uncertainty in the Measurements of Magnetic Fields** *Rosario Miceli* (University Of Palermo), Ciro Spataro (University Of Palermo), Mariacristina Roscia (University Of Bergamo)*	
11:00-11:20	**ID: 324 Economical Evaluation Of Ecological Benefits Of The Demand Side Management** *Rosario Miceli* (University of Palermo), Fabio Viola (University of Palermo), Pietro Romano (University of Palermo), Diego La Cascia (University of Palermo), Michela Longo (Politecnico di Milano), Ganesh Sauba (DNV.GL)*	
11:20-11:40		
12:00-13:30	**LUNCH BREAK**	

Date: Oct 22, 2014 - AM	4TH FLOOR	HALL: WALKER
TOPIC:		SESSION CHAIR: Ramazan Bayindir
13:30-13:50	**ID: 151 A Proportional Resonant Controller Tuning Method for Grid Connected Power Converters with LCL+Trap Filter** *Weiyi Zhang* (SEER), Toni Cantarellas (), Daniel Remon (Abengoa), Alvaro Luna (Universidad Politecnica De Catalunya), Pedro Rodriguez ()*	
13:50-14:10	**ID: 155 Zigbee Enabled LED Luminaire - Enhanced Design and Control** *Shamshudeen J (C-DAC), Dhivya G* (C-DAC), Subaashini Krishnamurthy (C-DAC), Sridevi S (C-DAC), Pitchiah R (Deity)*	
14:10-14:30	**ID: 290 Microgrid Facility at European Union** *Ramazan Bayindir* (Gazi University), Erdal Bekiroglu (A. Izzet Baysal University), Eklas Hossain (), Ersan Kabalci (Nevsehir University)*	
14:30-14:50	**ID: 291 Microgrid Facility Around Asia and Far East** *Eklas Hossain (), Ersan Kabalci (Nevsehir University), Ramazan Bayindir* (Gazi University), Sevki Demirbas (Gazi University)*	
14:50-15:10	**ID: 168 A New Control Strategy for a Class of Multiple-Input DC-DC Converters** *Anand Prabhala (Missouri S&T), Mostafa Khazraei (), Mehdi Ferdowsi* (Missouri S&T)*	

Date: Oct 22, 2014 - AM	4TH FLOOR	HALL: MITCHELL
TOPIC:		SESSION CHAIR: Mehmet Ilyas Bayindir
08:00-08:20	**ID: 210 A New Real-Time Reconfiguration Approach based on Neural Network in Partial Shading for PV Arrays** *Mehmet Karakose* (), Mehmet Baygin (Firat University), Koray Parlak ()*	
08:20-08:40	**ID: 212 Multi-Objective Optimal Design of Hybrid Renewable Energy Systems Using MOEA/D** *Rui Wang* (National Univ. Of Defense Tech), Tao Zhang (College Of Information System And Management, National Univ. Of Defense Tech.)*	
08:40-09:00	**ID: 213 Application of Reaching Law Approach to Design of Sliding Mode Voltage Controller for PV System** *Mehmet Ilyas Bayindir* (Firat University), Koray Parlak (Firat University)*	
09:00-09:20	**ID: 231 Design Phases for Grid Connected PV System** *Muhammad Hafeez Abbasi* (King Saud University), Abdulhameed Al-Ohaly (King Saud University), Yasin Khan (King Saud University), Hany Hasanien (KSU)*	
09:20-09:40	**ID: 270 Stochastic Model for PV Sensor Array Data** *Faris Alfaris (North Carolina State University), Ahmad Alzahrani (Missouri S&T), Jonathan Kimball* (Missouri S&T)*	

Date: Oct 22, 2014 - AM	LOBBY LEVEL	HALL: EMPIRE BALLROOM BALCONIES
15:10-16:30	Poster Session	

Date: Oct 22, 2014	LOBBY LEVEL	HALL:	EMPIRE BALLROOM
16:30-17:30	Closing Ceremony		

POSTER SESSION-3 (Oct 22, 2014 WEDNESDAY, 15:10-16:30) HALL: EMPIRE BALLROOM BALCONIES

TOPIC: **SESSION CHAIR: Harun Turker**

ID: 177 A Hybrid Power Flow Controller for Flexible Operation of Multi-Terminal DC Grids

Kumars Rouzbehi (), Arash Miranian (BPJ), Ignacio Candela (Technical University of Catalonia), Alvaro Luna (Universidad Politecnica de Catalunya), Pedro Rodriguez ()*

ID: 199 All-Digital Current Control for Capacitor-Free Multi-Channel LED Drivers

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