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Renewable (Green) Energy Systems and Sources (RESSs) as Wind Power, Hydropower, Solar Energy, Biomass, Biofuel, Geothermal Energy, Wave Energy, Tidal energy, Hydrogen & Fuel Cells, Energy Storage, Li-ion Batteries, Capacitors

- New Trends and Technologies for RESSs
- Policies and Strategies for RESSs
- Energy Transformation from Renewable Energy System (RES) to Grid
- Novel Energy Conversion Studies for RESs
- Power Devices and Driving Circuits for RESs
- Control Techniques for RESs
- Grid Interactive Systems Used in Hybrid RESs
- Performance Analysis of RESs
- Hybrid RESSs
- Decision Support Systems for RESSs
- Renewable Energy Research and Applications for Industries
- RESSs for Electrical Vehicles and Components
- Artificial Intelligence and Machine Learning Studies for RESs and Applications
- Computational Methods for RESS
- Energy Savings for Vehicular Technology, Power Electronics, Electric Machinery and Control, etc.
- New Approaches in Lightings
- Public Awareness and Education for Renewable Energy and Systems
- Reliability and Maintenance in RESSs
- Smart grids and RESSs
- Safety and Security of RESSs
- Renewable Energy Systems in Smart Cities
- Future Challenges and Directions for RESSs

LANGUAGE

The working language of the ICRERA conference is English

WELCOME to ICRERA 2018

Dear Colleagues,

The purpose of the International Conference on Renewable Energy Research and Applications (ICRERA) 2018 is to bring together researchers, engineers, manufacturers, practitioners, customers and participants from all over the world to share and discuss advances and developments in renewable energy research and applications.

After the success of the first, second, third, fourth, fifth and sixth edition of ICRERA in Nagasaki, Madrid, Milwaukee, Palermo, Birmingham, San Diego and this seventh ICRERA will continue promoting and disseminating knowledge concerning several topics and technologies related to renewable (green) energy systems and sources. ICRERA aims to present important results to the international community of renewable energy fields in the form of research, development, applications, design and technology. It is therefore aimed at assisting researchers, scientists, manufacturers, companies, communities, agencies, associations and societies to keep abreast on new ideas and developments in their specialist fields and to unite in finding alternative energy solutions to current issues such as the greenhouse effect, sustainable and clean energy issues. It is our great pleasure to host and be with you in Paris, France, during the conference. Please feel free as if you are at home.

You will find the detail information about this activity on the conference official website. Please visit www.icrera.org

We are looking forward to seeing you in the well-known city Paris, France.

Professor Brayima DAKYO
General Chair, ICRERA 2018

Professor Ilhami COLAK
Co-Chair, ICRERA 2018

Professor Fujio KUROKAWA
Co-Chair, ICRERA 2018

KEYNOTE SPEAKERS

Keynote 1: Professor Johann W. Kolar, Swiss Federal Institute of Technology, Switzerland
Date : October 15, 2018 10.00-11.00 AM

Biography: Johann W. Kolar (F´10) received his M.Sc. degree in Industrial Electronics and Control Engineering and the Ph.D. degree in Electrical Engineering (summa cum laude / promotio sub auspiciis praesidentis rei publicae) from the Vienna University of Technology, Austria, in 1997 and 1999, respectively. Since 1984 he has been working as an independent researcher and international consultant in close collaboration with the Vienna University of Technology in the fields of power electronics, industrial electronics and high performance drives. He was appointed Assoc. Professor and Head of the Power Electronic Systems Laboratory at the Swiss Federal Institute of Technology (ETH) Zurich on Feb. 1, 2001, and was promoted to the rank of Full Prof. İn 2004. He has proposed numerous novel PWM converter topologies (e.g. the VIENNA Rectifier, Sparse Matrix Converter, and SWISS Rectifier) and modulation and control concepts. He has published over 750 scientific papers in international journals and conference proceedings, 3 book chapters, and has filed more than 140 patents. He has presented over 20 educational seminars at leading international conferences and has served as IEEE PELS Distinguished Lecturer from 2012 through 2016. He has supervised more than 60 Ph.D. students and has initiated and/or is the founder of 4 ETH Spin-off companies. The focus of his current research is on ultra-compact and ultra-efficient SiC and GaN converter systems, wireless power transfer, Solid-State Transformers, Power Supplies on Chip, as well as ultra-high speed and ultra-light weight drives, bearingless motors, and energy harvesting. Dr. Kolar has received 25 IEEE Transactions and Conference Prize Paper Awards, the 2014 IEEE Power Electronics Society R. David Middlebrook Achievement Award, the 2014 SEMIKRON Innovation Award, the 2016 IEEE William E. Newell Power Electronics Award, and the ETH Zurich Golden Owl Award for excellence in teaching. He is a Member of the Steering Committees of several leading international conferences in the field and has served from 1997 through 2000 as Associate Editor of the IEEE Transaction on Industrial Electronics and from 2001 through 2013 as Associate Editor of the IEEE Transactions on Power Electronics. Since 2002 he also is an Associate Editor of the Journal of Power Electronics of the Korean Institute of Power Electronics and a member of the Editorial Advisory Board of the IEEJ Transactions on Electrical and Electronic Engineering.

The Essence of Solid-State Transformers

Summary: Solid-State Transformers (SSTs) are power electronic interfaces between medium-voltage AC or DC grids and low-voltage AC or DC grids, which employ medium-frequency transformers to provide galvanic isolation, and which offer a high degree of controllability of active and reactive power flows.
Early concepts date back to the 1970s, where research was mainly driven by the aim to reduce volume and weight of rail vehicles' isolated AC/DC input stages. Later, possible applications in the context of Smart Grids shifted into focus, where the main drivers were enhanced power routing functionalities of power electronic systems compared to passive low-frequency transformers. Current megatrends, such as Smart Cities, Electric Mobility and Clean Energy, open many new and interesting future applications for SST systems, especially in the context of future DC microgrids or DC applications in general, e.g., datacenters, larger EV charging facilities, DC collector grids for high-power off-shore wind parks, or even future hybrid propulsion aircraft.
After showcasing these motivators of SST research, the talk covers key concepts for the realization of SST systems. These key concepts include the scaling of magnetic components with operating frequency, basic isolated DC/DC converter topologies (dual active bridge, series-resonant DC transformer), multi-cell converter structures with input-series output-parallel (ISOP) configuration to achieve modularity and high reliability through redundancy, structural options for realizing three-phase connectivity, and hybrid transformers, amongst others. Industrial SST prototype systems are discussed to illustrate their application in practice.
Finally, the talk concludes with an overview on recent developments in the field, such as highly compact and efficient SST systems based on 10kV SiC power semiconductors.

Keynote 2: Professor Pierluigi Siano, IEEE IES Technical Committee Chair on Smart Grids, Italy
Date : October 15, 2018 11.30-12.30 AM

Biography: Prof. Pierluigi Siano received the M.Sc. degree in electronic engineering and the Ph.D. degree in information and electrical engineering from the University of Salerno, Salerno, Italy, in 2001 and 2006, respectively. In 2013 he received the Italian National Scientific Qualification as Full Professor in the competition sector electrical energy engineering, including power systems and power electronic subjects. He is an Associate Professor with the Department of Industrial Engineering, University of Salerno. His research activities are centered on demand response and smart grids, on the integration of renewable distributed generation into electricity networks. He published an international book, more than 330 technical papers including more than 170 international journal papers indexed in Scopus, that received more than 4400 citations with an H-index equal to 33. Associate Editor of the IEEE Transactions on Industrial Informatics since 2011.

Editor of the journal Smart Cities, MDPI Publisher since 2018, Editor of Intelligent Industrial Systems, Springer 2014-2017, Guest Editor of IEEE Transactions on Industrial 9iteratüre9sor Informatics 9iterat following Special Sections:

-IEEE Transactions on Industrial Electronics, SS on Methods and Systems for a Smart Energy City 2017

-IEEE Transactions on Industrial Informatics, SS on Industrial and Commercial Demand Response 2017

-IEEE Transactions on Industrial Informatics and Transactions on Industrial Electronics, SS on New Trends in Intelligent Energy Systems 2013

-IEEE Transactions on Industrial Informatics, SS on Modeling and Simulation of Cyber-Physical Energy Systems 2013

-IEEE Transactions on Industrial Informatics, SS on Information Technologies in Smart Grids 2011

-IEEE Transactions on Industrial Electronics, SS on Smart Devices for Renewable Energy Systems 2010

-IEEE Transactions on Industrial Electronics, SS on Methods and Systems for Smart Grids Optimization 2009

Chair of the IEEE IES Technical Committee on Smart Grids since 2017

A Transactive Energy Approach for Energy Management in Smart Buildings

Summary: The transactive energy concept is relevant for building energy management. The GridWise Architecture Council defines TE as "A system of economic and control mechanisms that allows the dynamic balance of supply and demand across the entire electrical infrastructure using value as a key operational parameter". An architecture is described to manage several prosumers, and each one with various electrical appliances. An open IoT architecture is employed, where a centralized database records the energy data of all electrical appliances, photovoltaic and storage systems, and environmental parameters from all prosumers. Thus, each prosumer is connected to a home gateway, connected by means of the cloud paradigm to a gateway manager. The architecture may enable commercial aggregators to provide services by connecting to the gateway manager and centralized database. Each prosumer is managed by an Energy Management System (EMS) enabling energy and cost saving while maintaining the serving of the load of the user.

Keynote 3: Professor Concettina Buccella, IEEE IES Technical Committee Chair on Renewable Energy Systems, Italy
Date : October 16, 2018 08.50-09.50 AM

Biography: Prof. Concettina Buccella (Senior Member IEEE) was born in L' Aquila. She received the M.Sc. degree and the Ph.D. degree in Electrical Engineering from the University of L'Aquila, Italy, in 1988 and the University of Rome "La Sapienza" in 1995, respectively. After graduation she was a research engineer with Italtel SpA, L'Aquila, then in 1991 she joined the Department of Electrical Engineering at the University of L'Aquila, where she was an assistant professor and since 2001 she is Associate Professor of Electrotechnics. She holds the italian habilitations as Full Professor in Power Converters, Drivers, Machines and Power Systems and in Electrotechnics. She is Associate 10itera of IEEE Transaction on Industrial Electronics and of Springer's Journal of Intelligent Industrial Systems. In 2016 she has been elected Chair of IEEE-IES Renewable Energy Systems Technical Committee. Her research interests deal with smart grids, power converters modulation techniques, renewable energy management, analytical and numerical modeling, electromagnetic compatibility, controlled active shields, power line communications, models of biological systems with particular attention to the human eye, applications of neural networks and wavelet transform. She is a Senior Member of the IEEE, a member of the Power Electronics Committee and of the Smart Grids Committee of the IEEE Industrial Electronics Society, for many years she has been a member of the Electrostatic Process Committee of the IEEE Industry Applications Society. She was a Member of the Committee for Education Rights at the University of L'Aquila. She has been an evaluator of research projects, Ph.D. candidates and in promotions to Full Professor and to Associate Professor rank for several foreign institutions and universities. Concettina Buccella has been a reviewer for many international journals, mostly IEEE Transactions, including TPEL, TIA, TIE and TII, Elsevier journals and Springer journals. She has been a member of the Organizing Committee and a teacher of the Post M.S. Master "Energy Manager" at the Faculty of Engineering, University of L'Aquila. During 2009-2011, she has been a Guest Editor of the IEEE Transactions on Industrial Electronics – Special Section on: "Methods and Systems for Smart Grids Optimization" (published on October 2011) and during 2015-2016 of the IEEE Transactions on Industrial Electronics – Special Section on: "Recent Advances in Multilevel Inverters and their Applications" (published on December 2016). She was plenary speaker at International Conference of Energy and Water, September 25-27, 2013, Luanda, Angola with the tutorial: "Standards 10iteratür grids with emphasis on their realization in remote and rural areas" (invitation from Ministry of Energy and Water of Angola). She has been a committee member, a reviewers and a session chair in international conferences being, among the others, a Track Chair for "Power Systems" at the 39th Annual Conference of the IEEE Industrial Electronics Society (IECON2013), November 10-13, 2013, Vienna, Austria, a Technical Program Committee Member of the 2013 IEEE International Workshop on Intelligent Energy Systems "Managing the Complexity in Energy Systems" (IWIES2013), November 14, 2013, Vienna, Austria. She has been a Member of Scientific Committee of International Conference on Renewable Energy for Developing Countries (REDEC'14, REDEC'16, REDEC'18) in Beirut, Lebanon, a Program Committee member of IEEE IWIES2014, a Program Committee Member of International Symposium on Environment Friendly Energies and Applications, (EFEA2014) at Supmeca Campus in Paris, 19-21 November 2014. She was a Co-Chair of the session MoB8 "Power Converters, Control, and Energy Management for Distributed Generation at International Symposium on Industrial Electronics (ISIE2014), 1 – 4 June 2014, Istanbul, Turkey; a Track Chair for Power Electronics of ISIE 2015 in Porto Alegre, Brasil, for Power Systems of IECON2015 in Yokohama and for Power Systems of IECON2016 in Florence, Italy. She has been Treasurers at ECON2016 and Track Chair for Power Systems of the IECON 2017, Oct. 29 – Nov. 1, 2017, Beijing, Cina. She was Technical Track for "Renewable Energy Systems" at 19th IEEE International Conference on Industrial Technology (ICIT'2018), Lyon, France, February 20-22, 2018; Organizing Committee Member at 3rd International Conference on Power and Energy Engineering June 18-19, 2018 at Rome, Italy; Committee Members for ENERGY 2018 (Eighth International Conference on Smart Grids, Green Communications and IT Energy-aware Technologies), May 20 – 24, 2018 – Nice, France; Committee Members for DBKDA 2018 (Tenth International

Conference on Advances in Databases, Knowledge, and Data Applications), May 20 – 24, 2018 – Nice, France; Tutorial-Workshop Chairs and Member of Steering Committee at EFEA2018, Rome 24-26 September 2018; Technical Program Committee Member of Automotive Conference 2018, Milan 9-11 July, 2018. She has been visiting professor at the Harbin Institute of Technology (HIT) in 2014, 2015 and 2016. She held tutorials at HIT and at Bohai University, Jinzhou Shi, Cina. In 2016 she held the summer course in Electrotechnics at HIT. In 2007 Concettina Buccella has been a Co-Founder of DigiPower Ltd., a University of L'Aquila spin-off, and operating in the field of ndustrial electronics, power systems, smart grids, modeling, electromagnetic compatibility and since 2012 she has been the C.E.O. Concettina Buccella has been a co-recipient of the 2012 Best Paper Award of the IEEE Transaction Industry Information 11iterat paper: "Smart Grid Technologies: Communication Technologies and Standards", IEEE Transactions on Industrial Informatics, Vol. 7, N. 4, pp. 529 – 539, Nov. 2011. (authors: V. C. Gungor, D. Sahin, T. Kocak, S. Ergüt, C. Buccella, C. Cecati, G. P. Hancke) and a co – recipient of the 2013 Best Paper Award of the IEEE Transactions Industry Informatics 11iterat paper: "Digital Control of Power Converters – A Survey ", IEEE Transactions on Industrial Informatics, Vol. 8, N. 3, pp. 437-447, Aug. 2012. (authors: C. Buccella, C. Cecati, H. Latafat).

Low switching frequency modulation techniques for renewable energy multilevel Converters

Summary: For renewable energy applications, cascaded H-bridge (CHB) multilevel inverters are highly appreciated, due to reduction of switching losses obtained by the application of low frequency modulation methods. Selective harmonic elimination (SHE) methods allow the use of low switching frequency and the elimination of certain low order harmonics maintaining the fundamental voltage at the desired level. Based on variable terms in the non linear SHE equations, the SHE methods can be classified as:

1) SHE pulse-width modulation (SHE-PWM),

2) SHE pulse-amplitude modulation (SHE-PAM).

In SHE-PWM methods only switching angles have regarded as degrees of freedom in the SHE equations. For a fixed number of levels, more angles are required to eliminate more harmonics; consequently switching frequency must be increased.

In SHE-PAM technique, the value of inverter DC voltage can be considered as an additional degree of freedom; the conventional equations are reformulated to obtain constant switching angles for a wide range of modulation index. In other words, the introduction of floating voltage levels contributes to effectively doubling the number of variables.

SHE technique requires the solution of a transcendental equations system which is not deterministic for a full range of modulation 11iteratüre operating points. Many mathematical iterative techniques have been proposed in the 11iteratüre. They are computationally burdensome and require a good chose of initial values. It is difficult to converge to a solution for iterative methods and increasing the number of variables or dimensions, the possibility of divergence increases.

Based on the Groebner bases and symmetric polynomial theory, the SHE equations can be transformed to an equivalent canonical system which consists of algebraic equations. This method has not requirement on choosing initial values, it can find all the solutions and the solving procedure is simplified.

This talk focuses on the review of modulation techniques working at low switching frequency for renewable energy power converters. Particular attention is given to SHE-PWM and SHE-PAM techniques, highlighting benefits and drawbacks of each regarding total harmonic distortion (THD) of output voltage and current, system efficiency and cost.

Keynote 4: Professor Seddik Bacha, University of Grenoble, France
Date : October 16, 2018 09.50-10.50 AM

Biography: Seddik Bacha received the Diploma of Electrical Engineering and the Magister Degree from the Ecole Nationale Polytechnique of Algiers, Algeria, respectively in 1982 and 1990. After 8 year of teaching activity at the Ecole Nationale Polytechnique and Abderahmane Mira University (Bejaia-Bgayet, Algeria), he joined the Grenoble Electrical Engineering Laboratory in 1990 where he received the Doctorate Degree and "Habilitation à Diriger de Recherche" Diploma from Grenoble National Institute of Technology in 1993 and 1998, respectively. He is currently full professor within Grenoble Alpes University in charge of Electric Engineering, Power Electronics, Mathematics and Control lectures for various undergraduate courses. His main research interests are modeling, control and simulation of energy systems and Supergrids/microgrids. He had supervised in this field more than 50 Ph.D. defended thesis, published one book related to power electronics modeling and control and another one on Electric Vehicle to Grid management issues. He has published nearly 450 journals and conferences papers in his area of expertise. He has been the Powers System Group Manager (around 70 people) inside the G2Elab Laboratory during from 2000 to 2012 and Director Deputy of the National Group GDR SEEDS from 2012 to the end of 2017. Currently he is Program Scientific Director within the SuperGrid Institute in Lyon and President of its Scientific Council. Others : Associate Editor and SS Guest Editor for IEEE Transactions on Industrial Electronics.

The large-scale integration of renewable electricity generation and HVDC grids

Summary: The large-scale integration of renewable electricity generation and HVDC grids pose both structural, economic and management challenges. Among the major challenges, one can note the grid integration and the routing of this energy from the production centers to the consumption poles. The idea put forward by the defunct DESERTECH project carries with it the seeds of a more global reflection on future major electricity transmission system. The HVDC was thus highlighted but also the various locks accompanying it. This presentation will focus on these new challenges: HVDC providing solutions to facilitate large scale renewable integration but new challenges and locks they accompany it. Finally, the underlying scientific issues will be discussed.

Industrial Talk: Mr. Akira KAWAGUCHI, Vice President of TMEIC, Japan
Date : October 16, 2018 10.50-11.20 AM

Name: Akira Kawaguchi

Date of Birth: June 23 1963

Education: Sophia University, March 1988

Professional Experience:

Oct. 2003 - Present Toshiba Mitsubishi-Electric Industrial Systems Corporation
Jun. 2018 Executive Officer
Vice President of Power Electronics Systems Division
Apr. 2018 Vice President of Power Electronics Systems Division
Apr. 2016 Deputy Vice President and Technology Executive of Renewable Energy & New Technology Division
Apr. 2014 Technology Executive of Renewable Energy & New Technology Division
Apr. 2013 Senior Manager of Photovoltaic System Center
Power Electronics Systems Division
Oct. 2010 Senior Manager of Power Electronics Department Power Electronics Systems Division
& General Manager of Fuchu Works

More Renewables, More Stable Power and More Energy Efficiency in Power Grid

Summary: One of most emerging global issues is the CO2 abatement for sustainability. The climate policies assign great roles to the renewables and the energy efficiency, to which the Power Electronics can contribute very much as a key technology. The talk introduces recent technology trend of industrial power electronics especially on the large capacity in the range of MW. Such technology is expected to contribute to further promotion of the renewables and the energy efficiency.

The first topic is the power electronics for the renewables. The industrial PV inverters are introduced to show the technology trend in the PV fields. The talk explains key technologies for realizing MW-range inverters with very high system efficiency. Then, the talk continues on the energy storage systems, ESSs, for large-scale power plants. The ESSs are necessary for stabilizing the power grid by managing the power and energy from the renewables. The smart control systems are also introduced which integrates the renewables, the ESSs and the loads in the power grids.

The second topic is related to the trend of digitalization. The control systems including power grid control are now on the way where they greatly depend on the information/communication technology, ICT. The talk reminds that the ICT facilities cannot work without reliable electric power. As one of the technologies, the latest UPS, Uninterruptible Power System, is introduced for MW range application in the large data centers from both viewpoints of the reliability and the energy efficiency.

The third topic is on the energy efficiency in industries. The motors consume more than half of the electricity in the world. The motor drive by inverters is well recognized for better system efficiency in low voltage applications. The talk notes that, for expanding the inverter drive to higher voltage applications, the inverter technology for several kV and higher is required. Then, such technology is introduced with the high voltage motors.

In the summary, the talk remarks that the power electronics technology is now embedded almost in everything. Then, a concept “PEiE”, Power Electronics in Everything, is proposed, in which new values will be created by linking the power electronics in things and will contribute to a sustainable future.

SPECIAL SESSIONS

Special Session 1: INTELLIGENT SYSTEMS FOR RENEWABLE ENERGY APPLICATION
Date : October 17, 2018 – 09.00-10.40 AM

Organizers: Prof. M. Arif Wani, Computer Sciences, University of Kashmir, Srinagar, J & K India

Summary: Intelligent Techniques are increasingly being used to improve efficiency and reliability of power generation, transmission, and distribution systems. Incorporating intelligent techniques into power networks play an important role in improving the performance and reducing the operational cost of these networks. A number of intelligent techniques which include artificial neural networks, fuzzy logic, evolutionary algorithms, dimensionality reduction, feature selection, clustering, reinforcement learning and deep learning techniques have been used in power networks. Big data analytics techniques for handling power networks involving large volumes of data have been studied by researchers. Cloud computing for virtualization of intelligent power networks have also been experimented by researchers. One of the challenges is to develop intelligent systems which can evolve incrementally as new learning data becomes available. Intelligent systems can learn of their own without external intervention and without scrapping the exiting learned system. This special session aims to bring together researchers and developers from academia, industry and governmental institution to share and exchange novel ideas and experiences that address challenges in developing intelligent systems for power networks. Topics include, but are not limited to:

- Artificial Neural Networks
- Fuzzy Logic
- Evolutionary Systems
- Feature Selection
- Reinforcement Learning
- Clustering
- Machine Learning
- Support Vector Machines
- Data Mining
- Dimensionality Reduction
- Deep Learning
- Big Data
- Cloud Computing
- Statistical Learning
- Collaborative Systems
- Hybrid Systems
- Dynamic Learning Systems
- Autonomous Learning System
- Incremental Learning System

Special Session 2: Public Awareness and Education for Renewable Energy and Systems
Date : October 17, 2018 – 14.20-16.00 PM

Organizer: Prof. Dr. Halil Ibrahim BULBUL, Gazi University, Ankara/Turkey
Medine COLAK, Gazi University, Ankara/Turkey
Ayse COLAK, Cankaya University, Turkey
Selin BULBUL, Çankaya University, Ankara/Turkey

Summary: New technologies are developing very faster than before and also technologies changed rapidly needs of people according to the use of technology. To understand the meaning of the benefits that renewable energy can bring we must firstly establish our understanding of the concept. The future of the developed and developing countries in the world depends on the availability and transport of energy. It can be said that the consumption of energy will continuously grow in the near future. With renewable energy security and sustainability have become other major priorities to both customers and energy provider companies. Deployment of sustainable / renewable energy sources is crucial to a healthy relationship of society and the environment. Renewable energy is also providing clean and cheap options for customer that live with friendly and healthy environment.

Smart grids are providing good infrastructure for customer that people receive uninterrupted service and they can query their usage easily through the systems. Many customers need to be trained through public awareness on benefit and advantage of renewable energy. Increased public awareness generally increases the willingness to counteract energy consumption and the acceptance of climate-friendly technologies.

Social acceptance is another important issue to increase public awareness on renewable energy. Social acceptance is influenced by both the awareness of climate change and its impacts, and the knowledge of the renewable energy technology in question. There is an evident positive relation between people's awareness about climate change and its impacts, and their preparedness to act. Apart from awareness about climate change, it is important that the public is sufficiently familiar with the renewable energy generation technology. For new technologies, timely, complete and balanced knowledge needs to be provided in order to raise awareness on its costs, risks and benefits. Experience shows that potentially useful technologies will not be considered if the public is unfamiliar with them, so that many new and existing technologies are not commonly used. Topics include, but are not limited to:

- ✓ Social acceptance in renewable energy technology deployment
- ✓ Elements of social acceptance on renewable energy
- ✓ Improving social acceptance on renewable energy
- ✓ Improving behavior of costumer or public about renewable energy
- ✓ Increasing level of social awareness on renewable energy
- ✓ Educating people on benefit and advantage of renewable energy regardless of saving cost,
- ✓ healty and environment
- ✓ Future of renewable energy
- ✓ Effect of renewable energy usage on climate changing

Special Session 3: Cyber Security and Big Data Analytics for Smart Grids
Date : October 17, 2018 – 14.20-16.00 PM

Organizers: Prof. Dr. Seref SAGIROGLU, Gazi University, Turkey

Summary: Smart grid systems (SGSs) become a requirement to improve efficiency and reliability of the power generation, transmission, and particularly distribution systems. In order to maintain power networks with high performance as well as reducing operational cost, utility companies need to implement SGSs into their networks. Many smart grid initiatives leverage an increased dependency of information and communication technologies (ICT) to integrate more accurate physical parameter measurements and intelligent controller devices to the systems. It is well known that advancement in ICT provides easier and fast communication capabilities to SGSs to keep different components in power systems connected. However, the increased ICT dependency also introduces additional security risks for utility networks using SGSs resulting from poor system configurations, poor network design and vulnerabilities in software and operating platforms, lack of security policies and standards. Big Data Analytics also provides new perceptions and solutions to SGSs. This special session aims to bring together researchers and developers from academia, industry and governmental institution to share and exchange novel ideas, expectations, concerns and solutions, explore the inherent challenges in developing more secure SGSs with the current solutions and dig data analytics and share current experiences.

Topics include, but are not limited to:

- System security concerns
- Vulnerabilities and threats
- Security requirements for information and infrastructure
- Security policies critical
- Network security in smart grid
- Operating system security
- Communication protocol security
- Application security
- Malicious software threats and protections
- Security risk analysis, modeling, evaluation and management
- Machine to machine communication security
- Growing concern for customers privacy
- Standardization efforts and regulatory compliance
- Secure design techniques and tools
- Secure Monitor and control of distributed smart grid networks
- Software security in smart grid
- Industry 4.0 for SGSs
- Big data analytics, technologies, techniques and solutions for Smart grids
- Machine learning solutions for smart grid system security
- IoT and IoE in smart grid application and implementation.

Special Session 5: Power Quality Improvement for Renewable Energies Systems
Date : October 16, 2018 – 16.20-18.20 PM

Organizers: Samir Moulahoum, University of Médéa, Algeria
Nadir Kabache, University of Médéa, Algeria

Summary: To overcome the pollution problems caused by the consumption of fossil fuels, renewable energies are the alternatives recommended to ensure green energy. However, low power factor (PF) and bad total harmonic distortion (THD) generated by nonlinear loads affects the equipment's connected to the renewable source.

Renewable energies are the alternatives recommended to ensure green energy. However, low power factor (PF) and bad total harmonic distortion (THD) generated by nonlinear loads affects the equipment's connected to the renewable source.

The problem of harmonic pollution has lead researchers in electrical engineering to develop more effective solutions to meet the requirements for the quality of electric power. These types of devices are generally referred to: active power filters. Power factor corrector, sinus rectifiers…

Several control methods can be used to control these converters: Direct power control (DPC), Predictive power control (PPC), sliding mode and new methods based on intelligent techniques (neuronal, fuzzy logic, ….)

All innovative topics on the power quality improvement regarding any component of renewable energy system are welcome to join this special session. The session covers topics including, but not limited to:

- AC/DC converters for high power quality for renewable energy systems
- DC/DC Converters in renewable energy applications
- Active power filters (shunt, series and hybrid)
- Sinus and PWM rectifiers
- Unity Power Factor corrector UPFC
- Control techniques applied for power quality improvement
- Intelligent control (neuronal, fuzzy, GA,..) for power quality improvement

Special Session 6: Microgrids Design, Optimization, Control and Energy Management
Date : October 17, 2018 – 09.00-10.40----16.20-18.20 PM

Organizers: Prof. Dr. Mamadou Baïlo CAMARA,
GREA-Laboratory, University of Le Havre Normandie, France
Prof. Dr. Shubhransu SEKHAR DASH,
Department of Electrical & Electronics Engineering,
SRM Engineering College, SRM University, Chennai, India
Prof. Dr. Manuela SECHILARIU,
AVENUES Research unit, Université de Technologie de Compiègne, France

Summary: Microgrids facilitate massif integration of renewable power sources and/or energy storage systems in decentralized energy production systems or in electrified transport applications. They present a great potential to create more flexibility in a power grid (stationary, mobile, or embedded), especially due to the design optimization, the optimal control with energy management and allow power quality improvement for the power grid as well as for the loads. Energy storage systems (ESS), including plug-in hybrid electric vehicles (PHEV) or electric vehicles (EV), which are connected to the common bus, improve performance, power reliability and efficiency of the multi-sources systems. Whether microgrids are isolated, such as in transport applications, or integrated into the distribution power grid or the transmission power grid, which can be AC or DC, HV or LV, high power or small power, they play an important role in power generation management, in order to obtain a good balance between the offer and the demand.

This special session is focused on the recent developments and new trends in microgrids design, sizing, optimization, resolving issues of smart integration, implementation, control and energy management with ESS or hybrid ESS (HESS).

Topics of interest include, but are not limited to, the following aspects of microgrids:

• Strategies for power control (flatness-based control, predictive control, etc.), stability, and protection
• Energy and power quality improvement
• Reliability and resiliency
• Optimization and performance analysis
• Modelling, simulation, and experimental validation
• Static power converters (topologies, efficiency, performance, etc.)
• Energy storage systems (ultracapacitors, batteries, flywheel, etc.)
• Energy management (economic dispatching, uncertainties consideration, load shedding, etc.)
• Information and communication technologies for real-time monitoring and control
• Novel renewable technologies for microgrid applications
• Microgrids for residential, commercial, and industrial spaces
• Microgrids for transportation electrification
• Interconnections of PHEV/EV with microgrids
• Case studies and demonstrators of on-grid and off-grid microgrids
• Power Hardware In the Loop (PHIL) simulation
• Real time energy management

Special Session 7: Mechanical Engineering Applications in Renewable Energy
Date : October 17, 2018 – 16.20-18.00 PM

Organizers: Prof. Dr. Yoshitaka NAKANISHI, Kumamoto University, Japan

Summary: Mechanical engineering and its applications in the field of renewable energy systems are important topics and have been studied by researchers for many years since the renewable energy become popular in the world recently. This special session aims to bring together mechanical / mechatronics researchers to share and exchange innovative ideas and experiences that address challenges in developing for the renewable energy research and applications.

Topics include, but are not limited to:

- ♣ Wind Turbine design
- ♣ Exploring instrument for renewable energy
- ♣ Ice adhesion issues in renewable energy infrastructures
- ♣ Surface engineering of nano-materials for improved energy storage
- ♣ Surface engineering issues on wind and solar energy system
- ♣ Green tribology, green surface engineering, and global warming

Special Session 9: Renewable Energy and Power Electronics: Modelling, Design, Control and Applications

Date **:** October 16, 2018 – 14.20-16.00 PM

Organizers: Youcef Soufi, University Larbi Tébessi,Tébéssa, Algeria

Summary: We have the pleasure to announce you the organization of a special session on Renewable Energy and power electronics: Modelling, Design, Control and Applications at the 7 th International Conference on Renewable Energy Research and Applications which will be held October 14-17, 2018, Paris, France.

We would very much appreciate if you participate to this session, and share the announcement below with those who may be interested in. This session aims to provide a platform to present and discuss recent developments and advances in modeling, design and control of renewable energy conversion systems, bring researchers and experts together to discuss and share their experiences.

Submitted papers include Topics below:

- Modeling and Control of Renewable Energy Systems
- Advances in Control of PV Systems and Hybrid Sources of Energy
- Robust Control of Generators in Wind Turbine
- Renewable Energy Sources, Technologies and Systems Applications
- The roles of Electrical Machines and Drives in Renewable Energy
- Power Electronics in Renewable Energy Systems
- Power Quality and Filtering Techniques in Renewable Energy Systems
- High Efficiency Electrical Machines and Drives for Energy Saving
- Diagnosis, Monitoring and Fault Tolerance Control of Renewable Energy Systems
- Power Electronics for Grid Interface in Renewable Energy Systems
- Control Systems and Optimization in Renewable Energy Systems

TUTORIALS

Tutorials 1 and 2: Integration of Large Renewable Energy Sources (Two Parts)
Date : October 14, 2018- 10.00-11.30 AM-12.00-13.00 PM

Organizers: Dr. Khaled Ahmed, University of Strathclyde, UK.
Dr. Grain P. Adam, University of Strathclyde, UK.

Summary of Part 1: As large renewable power plants tend to be located far from consumption centers, integration of the power collected from these power plants represent a major challenge. For example, the electrical outputs of these renewable power plants could be DC or AC voltage with magnitude and frequency which are incompatible with that of the AC grids. Therefore, power electronic interfacing is needed to decouple the AC grids from the power plants, control active and power exchange with AC grid, and assist renewable power plants to ride-through different AC and DC network faults. The commercially available state-of-the-arts high voltage direct current (HVDC) link technologies are based on voltage source converters. However, most of the presently operational HVDC transmission systems are based on the thyristor line commutated current source converter technology that offers low semiconductor power loss and high power density, thanks to the robustness and high current capability of the thyristor in a single wafer capsules. On the other hand, thyristors inject significant low frequency harmonics into AC side, which must be eliminated by large passive filtering, and cannot decouple the control of reactive power from the active or dc power to be injected into the AC network. The use of large passive components leading to large footprint systems. Self-commutated voltage source converter HVDC transmission systems were developed to address the shortcomings associated with the line commutated current source converter based HVDC transmission systems. The main objective of the tutorial is to discuss the HVDC systems with the aim of clarifying different topologies advantages and disadvantages, including the present and future challenges of HVDC systems.

Some of the topics will be covered in this tutorial are:

- Integration of large renewable energy sources, including operation, control and interactions with AC systems.
- The interactions of current source and voltage source HVDC links with AC grids will be analyzed, including the impacts of the controls and harmonics.
- The latest modular multilevel converter topologies for HVDC systems.
- AC and DC faults analysis for different HVDC technologies. The tutorial will be supported with illustrative simulations performed on MATLAB/SIMULINK software.

Summary of Part 2: This tutorial will present comprehensive review and discussions of the existing and emerging multilevel voltage source converters for high-voltage direct current (HVDC) transmission systems. The topics will be covered in this tutorial are selected carefully in order to provide a global view of power electronics systems, and to bridge the gap between the traditional power electronic researchers and their counterparts from the power systems.

The tutorial will cover the following aspects:

- Fundamental theory of voltage source converter and its evolution
- Half and full bridge modular multilevel converters
  - Operating principle, modulation and capacitor voltage balancing, and circulating current suppression
  - Control Methods of half and full bridge modular multilevel converters
- Modular multilevel converters with other types of cells
- Hybrid multilevel converters
  - Mixed cells modular multilevel converter (MC-MMC) and its variants:
    - ✓ Operating principle and control methods
    - ✓ Discussion of its customized control range
  - Alternate arm converter (AAC) and its variants:
    - ✓ Operating principle and control methods
    - ✓ Extended control range
- Modelling methods of HVDC converters
  - Dommel based electromagnetic transient approach
  - Generalized switching function method
  - Averaged
- Illustrative simulation case for HVDC link that employs half-bridge MMC
- Illustrative simulation case for HVDC link that employs full-bridge MMC
- Selected simulation cases for HVDC link that employs different hybrid converters
- General discussions

All registered delegates to this tutorial will be given 25-page of invaluable technical summary of the main points to be discussed.

Tutorial 3: Topologies and Control of Power Converters in Smart-Grid System
Date : October 14, 2018- 13.45-14.45 PM

Organizer: Dr. Takaharu Takeshita, Nagoya Institute of Technology, Japan

Summary: The photovoltaic and wind generation systems, whose generation power is influenced by the weather condition, are installed in smart-grid system. For smoothing the electric power and controlling the grid in safety, the battery systems are installed in the smart grid system. In the power charging to the electric vehicle, the power converters of not only wired connection, but also wireless connection are developed. This tutorial presents the topologies and control of the following power converters in the smart-grid system.
- Typical power converters in Smart-Grid System
- Compact-size and high-efficiency converter for a battery system
- High frequency galvanic-isolated AC/DC converter for EV quick charger
- High-efficiency power converter for wireless power transmission
- Grid control power converter with large-capacity battery

Tutorial 4: Big Data Analytics for Smart Grid Systems
Date : October 14, 2018- 15.00-16.00 PM

Organizer: Dr. Seref SAGIROGLU, Gazi University, Turkey

Summary: The objective of this tutorial is to present an insight on big data, big data analytics and smart grid systems. Big data analytics are considered as recent technology which provide solutions in various topics. Big data is known as huge data sets that are beyond the capture, manage and process ability of traditional techniques and tools. A review on smart grid systems and big data analytics are presented. In order to achieve this, available articles in the literature were reviewed in perception with the features of big data and smart grid systems. These systems are developed with the idea of having various data and integrating those data into intelligence for all electrical grids and components to manage huge and complex networks including different types and numerous numbers of devices and assets connected with a network for controlling, monitoring, tracking and managing the system according to the demands. When the smart grid systems are examined in the point of big data, providing new solutions from available measurements, enabling consumer demands, predicting new loads, and suggesting new ideas and new perceptions are considered. Potential issues for smart grids and big data analytics were discussed.

CONFERENCE PROGRAM SUMMARY

14.10.2018 Sunday		15.10.2018 Monday				16.10.2018 Tuesday		17.10.2018 Wednesday			
08:30-17:00	Registration										
Program		Program				Program		Program			
						08:50-9:50	KEYNOTE SPEECH-3 Prof. Concettina BUCELLA, Italy IEEE IES Technical Committee Chair on Renewable Energy Systems	09:00-09:20	ORAL PRESENTATION (4 PARALLEL SESSION) 5 PAPERS*20 MINUTES 20 PAPERS		
		09:20-10:00	**Opening Ceremony and Speeches** Prof. Brayima DAKYO, General Chair of ICRERA 2018 Prof. Ilhami COLAK, General Co-Chair of ICRERA 2018 Prof. Fujio KUROKAWA, General Co-Chair of ICRERA 2018 Dr. Shinzo TAMAI, Ex-President of IES section of IEEJ, Japan					09:20-09:40			
						09:50-10:50	KEYNOTE SPEECH-4 Prof. Seddik BACHA, France	09:40-10:00			
10:00-11:30	TUTORIAL-1 Part-I Dr. Khaled Ahmed, UK Dr. Grain P. Adam, UK University of Strathclyde	10:00-11:00	KEYNOTE SPEECH-1 Prof. Johann W. KOLAR, Switzerland					10:00-10:20			
								10:20-10:40			
						10:50-11:20	INDUSTRIAL TALK Mr. Akira Kawaguchi, TMEIC, Japan	10:40-11:00	COFFEE BREAK		
		11:00-11:30	COFFEE BREAK			11:20-11:40	COFFEE BREAK	11:00-11:20	ORAL PRESENTATION (4 PARALLEL SESSION) 4 PAPERS*20 MINUTES 16 PAPERS		
11:30-12:00	COFFEE BREAK	11:30-12:30	KEYNOTE SPEECH-2 Prof. Pierluigi SIANO, Italy IEEE IES Technical Committee Chair on Smart Grids			11:40-12:00	ORAL PRESENTATION (5 PARALLEL SESSION) 5 PAPERS*20 MINUTES 25 PAPERS	11:20-11:40			
12:00-13:00	TUTORIAL-2 Part-II Dr. Khaled Ahmed, UK Dr. Grain P. Adam, UK University of Strathclyde					12:00-12:20		11:40-12:00			
						12:20-12:40		12:00-12:20			
		12:30-14:00	LUNCH BREAK			12:40-13:00		12:20-12:40			
						13:00-13:20					
13:45-14:45	TUTORIAL-3 Prof. Takaharu Takeshita, Japan Nagoya Institute of Technology	14:20-14:40	ORAL PRESENTATION (4 PARALLEL SESSION) 5 PAPERS*20 MINUTES 20 PAPERS	12:20 -16:00	POSTER PRESENTATION-1 (15 PAPERS)	13:20-14:20	LUNCH BREAK	13:00-14:00	LUNCH BREAK	12:20 -16:00	POSTER PRESENTATION-3 (15 PAPERS)
14:45-15:00	COFFEE BREAK	14:40-15:00				14:20-14:40	ORAL PRESENTATION (5 PARALLEL SESSION) 5 PAPERS*20 MINUTES 25 PAPERS	14:20-14:40	ORAL PRESENTATION (4 PARALLEL SESSION) 5 PAPERS*20 MINUTES 20 PAPERS		
15:00-16:00	TUTORIAL-4 Prof. Seref Sagiroglu, Turkey Gazi University	15:00-15:20				14:40-15:00		14:40-15:00			
		15:20-15:40				15:00-15:20		15:00-15:20			
		15:40-16:00				15:20-15:40		15:20-15:40			
						15:40-16:00		15:40-16:00			
		16:00-16:20	COFFEE BREAK								
		16:20-16.40	ORAL PRESENTATION (4 PARALLEL SESSION) 5 PAPERS*20 MINUTES 20 PAPERS	16:20 -18:00	POSTER PRESENTATION-2 (15 PAPERS)	16:20-16.40	ORAL PRESENTATION (5 PARALLEL SESSION) 5 PAPERS*20 MINUTES 25 PAPERS	16:20-16.40	ORAL PRESENTATION (4 PARALLEL SESSION) 5 PAPERS*20 MINUTES 20 PAPERS	16:20 -18.00	POSTER PRESENTATION-4 (15 PAPERS)
		16:40-17:00				16:40-17:00		16:40-17:00			
		17:00-17:20				17:00-17:20		17:00-17:20			
		17:20-17:40				17:20-17:40		17:20-17:40			
		17:40-18:00				17:40-18:00		17:40-18:00			
18:00-19:30	WELCOME RECEPTION							18:00-18.30	CLOSING CEREMONY		
								19:30-21:30	GALA DINNER		

CONFERENCE PROGRAM SCHEDULE

Date: 14 October 2018	
08:30–17:00	**Registration**
Date: 14 October 2018	
	TUTORIALS **HALL: Berlin**
10:00-11:30	TUTORIAL-1: Part-I Dr. Khaled Ahmed, UK & Dr. Grain P. Adam, UK University of Strathclyde **"Integration of Large Renewable Energy Sources "**
11:30-12:00	**COFFEE BREAK**
12:00-13:00	TUTORIAL-2: Part-II Dr. Khaled Ahmed, UK & Dr. Grain P. Adam, UK University of Strathclyde **"Integration of Large Renewable Energy Sources "**
13:00-13:45	
13:45-14.45	TUTORIAL-3: Prof. Takaharu Takeshita, Japan Nagoya Institute of Technology **"Topologies and Control of Power Converters in Smart-Grid System "**
14:45-15:00	**COFFEE BREAK**
15:00-16:00	TUTORIAL-4 Prof. Seref Sagiroglu, Turkey Gazi University **"Big Data Analytics for Smart Grid Systems "**
Date: 14 October 2018	
18:00-19:30	**WELCOME RECEPTION**

Date: 15 October 2018		**HALL:**
08:30–17:00	**Registration**	
Date: 15 October 2018	**- AM**	**HALL: Bruxelles**
09:20-10:00	Opening Ceremony and Speeches **Chairs:** Professor Adel Nasiri, Professor Seref Sagiroglu	
KEYNOTE		**HALL: Bruxelles**
10:00-11:00	Prof. Johann W. Kolar, Switzerland, **"The essence of solid-state transformers"** **Chairs:** Professor Dan M Ionel, Professor Halil Ibrahim Bulbul	
11:00-11:30	**COFFEE BREAK**	
KEYNOTE		**HALL: Bruxelles**
11:30-12:30	Prof. Pierluigi Siano, Italy, **"A transactive energy approach for energy management in smart buildings. "** **Chairs:** Professor Haruhi Eto, Professor Mahamadou Abdou Tankari	
12:30-14:00	**LUNCH BREAK**	
12:20-16:00	Poster Session-1	**HALL: Lisbonne**
16:20-18:00	Poster Session-2	**HALL: Lisbonne**

ORAL PRESENTATIONS	
Date: 15 October 2018 - PM	**HALL: Bruxelles**
MAIN TRACK: Control Techniques for RESs,	**SESSION CHAIRS: Nobumasa Matsui, Grain P Adam**
14:20-14:40	**ID: 257 Finite Control Set Model Predictive Control Strategies for a Three-Phase Seven-level Cascade H-Bridge DSTATCOM** Leonardo Comparatore (Universidad Nacional de Asunción, Facultad de Ingeniería)*; Alfredo Renault (Universidad Nacional de Asuncion); Julio Pacher (Universidad Nacional de Asunción); Jorge E Rodas (Facultad de Ingenieria UNA); Raul Gregor (Universidad Nacional de Asuncion)
14:40-15:00	**ID: 266 Modeling of complex resonances in islanded Microgrids** Abdelhakim Saim (University of Sciences and Technology Houari Boumedien)*; Azeddine Houari (University of Nantes)
15:00-15:20	**ID: 145 Characteristics of Failure Schottky Barrier Diode and PN Junction Diode for Bypass Diode using Induced Lightning Serge Test** Toshiyuki Hamada (National Institute of Technology, Ube College)*; Kenta Nakamoto (National Institute of Technology, Ube College); Ikuo Nanno (National Institute of Technology, Ube College); Masayuki Fujii (National Institute of Technology, Oshima College); Shinichiro Oke (National Institute of Technology, Tsuyama College); Norio Ishikura (National Institute of Technology, Yonago College)
15:20-15:40	**ID: 479 Fundamental Experiment of Electric Coupling Three-phase Wireless Power Transfer** Fumiya Hattori (Nagoya University)*; Jun Imaoka (Nagoya University); Masayoshi Yamamoto (Nagoya University); Mitsuru Masuda (FURUKAWA ELECTRIC CO., LTD.)
15:40-16:00	**ID: 429 Load Frequency Control of Two Area Interconnected Power System Using Fuzzy Logic Control and PID Controller** Mehmet Rida TÜR (Mardin Artuklu Üniversitesi)*; Selim Ay (Yildiz Teknik Üniversitesi); Mohammed Wadi (İstanbul Sabahattin Zaim Üniversitesi); Abdulfetah Shobole (İstanbul Sabahattin Zaim Üniversitesi)
16:00-16:20	**COFFEE BREAK**
MAIN TRACK: Control Techniques for RESs	**SESSION CHAIRS: Leonardo Comparatore, Mehmet Rida**
16:20-16:40	**ID: 57 Forecasting Solar Radiation Strength Using Machine Learning Ensemble** Rami A AL-HAJJ (American University of the Middle East)*; Ali ASSI (The International University of Beirut); Mohamad Kasaby (Mansoura University)
16:40-17:00	**ID: 100 Load forecasting method for Commercial facilities by determination of working time and considering weather information** Takahiro Fujiwara (Tokyo University of Science)*
17:00-17:20	**ID: 221 Hydrogen-Based Energy Storage Systems: A Review** Maad Shatnawi (HCT)*; Nasir Al Qaydi (HTC); Nawf Aljaberi (HTC); Maitha Aljaberi (HTC)
17:20-17:40	**ID: 297 Short-term forecasting for solar radiation based on the multi-layer neural network with the Levenberg-Marquardt algorithm and meteorological data: application to Gandon site in Senegal** Willy Magloire Nkounga (Ecole Supérieure Polytechnique/Université Cheikh Anta Diop)*; Mouhamadou Falilou Ndiaye (Ecole Supérieure Polytechnique/Université Cheikh Anta Diop); Mamadou Lamine Ndiaye (Ecole Supérieure Polytechnique/Université Cheikh Anta Diop); Oumar CISSE (Ecole Supérieure Polytechnique/Université Cheikh Anta Diop); Mamadou BOP (Ecole Supérieure Polytechnique/Université Cheikh Anta Diop); Alexandre Sioutas (Ecole d'Ingenieurs/Université d'Angers)
17:40-18:00	**ID: 296 Application of Particle Swarm Optimization in the Design of Halbach Permanent Magnet Synchronous Generators for Megawatt Level Wind Turbines** Salem M Alshibani (PAAET)*
18:00-18:20	**ID: 45 Multi-port dc-dc and dc-ac converter for medium and high voltage applications** Grain P Adam (University of Strathclyde)*

Date: 15 October 2018 - PM	HALL: Berlin
MAIN TRACK: Computational Methods for RESSs	**SESSION CHAIRS: Luis Garcia, Vladimir Dimcev**
14:20-14:40	**ID: 434 A Novel Ensemble Approach for Solving the Transient Stability Classification Problem** Nicholas Gregory Baltas (Loyola Universidad Andalucia)*; Peyman Mazidi (Loyola Andalucia University); Francisco Fernandez (Loyola Universidad Andalucia); Pedro Rodriguez (Loyola University Andalusia)
14:40-15:00	**ID: 461 ANN-PSO Optimization of PV Systems Under Different Weather Conditions** Adedayo M Farayola (University of johannesburg)*; Yanxia Sun (University of Johannesburg); Ahmed Ali (University of Johannesburg)
15:00-15:20	**ID: 471 The ANFIS as a Prediction Method of Efficiency of PV Cells** Murat BEKEN (Beykent Ünivesitesi)*; Onder Eyecioglu (Nisantasi University); Korhan KAYISLI (Nisantasi University); Ozlem Yagcı (Yildiz Technial University); Orhan Icelli (Yildiz Technial University)
15:20-15:40	**ID: 207 Fuzzy and P&O Based MPPT Controllers under Different Conditions** Naci Genc (Van Yuzuncu Yil University)*; Dilovan Haji (Van Yuzuncu Yil University)
15:40-16:00	**ID: 216 Optimal Tuning of PI Controller for Boost DC-DC Converters Based on Cuckoo Optimization Algorithm** Naci Genc (Van Yuzuncu Yil University)*; Ali Mamizadeh (Van Yuzuncu Yil University); Ramin Rajabioun (Van Yuzuncu Yil University)
16:00-16:20	**COFFEE BREAK**
MAIN TRACK: Artificial Intelligence and Machine Learning..	**SESSION CHAIRS: Naci Genc, Ahmed Ali**
16:20-16:40	**ID: 83 Design of a Global Maximum Power Point Tracking (GMPPT) for PV array based on precise PV shadow model** Luis GARCIA (LAAS-CNRS)*; Corinne Alonso (LAAS)
16:40-17:00	**ID: 125 Analytical method for wind turbine power curve uncertainty estimation** Kiril Demerdziev (Ss. Cyril and Methodius University, Faculty of Electrical Engineering and Information Technologies)*; Vladimir Dimcev (Ss. Cyril and Methodius University, Faculty of Electrical Engineering and Information Technologies); Maja Celeska (Ss. Cyril and Methodius University, Faculty of Electrical Engineering and Information Technologies)
17:00-17:20	**ID: 200 Strategic Placement of Capacitor and DG for Voltage Improvement after Large Penetration of Renewable Energy Power Plant: An Indonesian Study** Muhammad Bachtiar Nappu (Hasanuddin University)*; Ardiaty Arief (Hasanuddin University); Muhammad Imran Bachtiar (Hasanuddin University)
17:20-17:40	**ID: 336 Improved Matlab Simulink two-diode model of PV module and Method of fast large-scale PV system simulation** Tai LE (French Alternative Energies and Atomic Energy Commission (CEA))*
17:40-18:00	**ID: 179 Development of a new Wound Rotor Induction Generator Model for XTAP and with Doubly-fed Control** Satoshi Sakurai (Sophia university)*; Orie Sakamoto (Sophia university)

Date: 15 October 2018 - PM	HALL: Athenes
MAIN TRACK: Computational Methods for RESSs	**SESSION CHAIRS: Benjamin Matthiss, Kazuhiro Kajiwara**
14:20-14:40	**ID: 211 Design support tool for Multi-DER residential microgrids** Giorgio Graditi (ENEA Portici)*; Giovanna Adinolfi (ENEA -Italian National Agency for New Technologies, Energy and Sustainable Economic Development-); Roberto Ciavarella (ENEA); Valeria Palladino (ENEA -Italian National Agency for New Technologies, Energy and Sustainable Economic Development-)
14:40-15:00	**ID: 70 Cooperative Control and Power Management for Islanded Residential Microgrids with Local Phase-wise Generation and Storage Units** Syed Ahmed Raza Naqvi (UWO); Jing Jiang (Western Ontario)*
15:00-15:20	**ID: 68 Modelling for Reactive Power Sharing Study of an Islanded Microgrid in DIgSILENT PowerFactory** Cassandra, Yi Chyn Wong (University of Southampton); Chee Shen Lim (University of Southampton Malaysia); Mihai Rotaru (University of Southampton); Andrew Cruden (University of Southampton)*; Xin Kong (Agency for Science, Technology, and Research)
15:20-15:40	**ID: 152 Inertial Support from Offshore Wind Farms Interfaced through MTDC Grids** Sai Gopal Vennelaganti (The Pennsylvania State University)*; Nilanjan Raj Chaudhuri (The Pennsylvania State University)
15:40-16:00	**ID: 234 MPC Energy management system for a grid-connected renewable energy/battery hybrid power plant** ADRIANA AGUILERA GONZALEZ (ESTIA)*
16:00-16:20	**COFFEE BREAK**
MAIN TRACK: Control Techniques for RESs	**SESSION CHAIRS: Valeria Palladino, Nilanjan Ray Chaudhuri**
16:20-16:40	**ID: 473 Power Utility Tests for Multi-MW High Energy Batteries** Oluwaseun Akeyo (University of Kentucky)*; Huangjie Gong (University of Kentucky); Nicholas Jewell (LG&E KU, Louisville, KY); Vandana Rallabandi (Univeristy of Kentucky); Dan M Ionel (University of Kentucky)
16:40-17:00	**ID: 227 Influence of Demand and Generation Uncertainty onthe Operational Efficiency of Smart Grids** Benjamin Matthiss (ZSW)*
17:00-17:20	**ID: 324 Utilizing spare inverter capacity for distribution grid voltage support: an adaptive control scheme** Christopher J Rose (University of Nottingham)*; Mark Sumner (University of Nottingham); David Thomas (University of Nottingham)
17:20-17:40	**ID: 385 Optimized PIA Controller for Photovoltaic System Using Hybrid Particle Swarm Optimization and Cuttlefish Algorithms** Mohamad A Badr (Future University in Egypt)*
17:40-18:00	**ID: 395 Performance-Improved Maximum Power Point Tracking Control for PV System** Kazuhiro Kajiwara (Nagasaki Institute of Applied Science); Hyuga Tomura (Nagasaki Institute of Applied Science)*; Nobumasa Matsui (Nagasaki Institute of Applied Science); Fujio Kurokawa (Nagasaki Institute of Applied Science)

Date: 15 October 2018 - PM	HALL: Londres
MAIN TRACK: Control Techniques for RESs	**SESSION CHAIRS: Haruhi Eto, Mehdi Bagheri**
14:20-14:40	**ID: 398 Interconnection and Damping Assignment Passivity Based Control for Power Sharing in Islanded Micro-Grids** Nidhal KHEFIFI (University of Nantes)*; Azeddine Houari (University of Nantes); Machmoum Mohamed (Nantes University); Malek Ghanes (Ecole centrale de Nantes)
14:40-15:00	**ID: 329 A Constant Grid Interface Current Controller for DC Microgrid** Muhannad Alshareef (Aston University)*; Zhengyu Lin (Aston University)
15:00-15:20	**ID: 408 Design of control unit in PMSG based small-scale wind turbine for power factor correction** Ibrahim Bilge Karpuzoğlu (Istanbul Technical University); Abdullah Polat (Istanbul Technical University); Lale T Ergene (Istanbul Technical University)*
15:20-15:40	**ID: 444 Optimization Design of Low-pass Filter in Sensorless Static Model Control for Wide Input Wind Power System** Fujio Kurokawa (Nagasaki Institute of Applied Science); Masashi Taguchi (Nagasaki University)*; Jizhe Wang (Nagasaki University); Hidenori Maruta (Nagasaki University); Nobumasa Matsui (Nagasaki Institute of Applied Science)
15:40-16:00	**ID: 448 Stability of Digital Hysteresis Current Mode Buck Converter for DC Distribution System** Kazuhiro Kajiwara (Nagasaki Institute of Applied Science); Kosuke Yamasaki (Nagasaki Institute of Applied Science)*; Nobumasa Matsui (Nagasaki Institute of Applied Science); Fujio Kurokawa (Nagasaki Institute of Applied Science)
16:00-16:20	**COFFEE BREAK**
MAIN TRACK: Renewable Energy Applications	**SESSION CHAIRS: Azeddine Houari, Sung-Pei Yang**
16:20-16:40	**ID: 294 Energy Consumption Optimization through Dynamic Simulations for an Intelligent Energy Management of a BIPV Building** Ilias Papas (LAAS-CNRS)*
16:40-17:00	**ID: 62 DC arc characteristic according to source voltage and load power level** Yong-Jung Kim (Kongju national university)*; Hyosung Kim (Kongju national university)
17:00-17:20	**ID: 298 A Novel Interleaved Ipsilateral Coupling High Step-Up DC-DC Converter for Renewable Energy Applications** Sung-Pei Yang (Kun Shan University)*; Meng-Jia Hong (Kun Shan University)
17:20-17:40	**ID: 93 Reduction of Output Power Pulsations for Electric Vehicles by Changing Distances between Transmitter Coils** Azamat Mukhatov (Electrical and Computer Engineering Department, Nazarbayev University); Mehdi Bagheri (Electrical and Computer Engineering Department, Nazarbayev University)*; Payman Dehghanian (George Washington University (USA)); Vicente Carabias (ZHAW Zurich University of Applied Sciences); Gevork B. Gharehpetian (Amirkabir University of Technology (AUT))
17:40-18:00	**ID: 449 Experimental Verification of DC Bus Voltage Stability for Household Distributed Power System with Micro EV Battery** Shinichiro Hattori (ISAHAYA ELECTRONICS CORPORATION)*; Haruhi Eto (Nagasaki University); Jizhe Wang (Nagasaki University); Fujio Kurokawa (Nagasaki Institute of Applied Science)

POSTER SESSION-1 (15 October 2018 MONDAY, 12:20-16:00) HALL: Lisbonne

TRACK **SESSION CHAIRS: Seref Sagiroglu, Rami A AL-HAJJ, Yoshitaka Nakanishi**

ID: 19 Optimisation Method for the Clear Sky PV Forecast Using Power Records from Arbitrarily Oriented Panels
Jorge A Thomas (Fraunhofer Society)*

ID: 72 Implementation of a serial AC/DC converter with modular control technology
Ming_Tsung Tsai (Southern Taiwan University of Science and Technology)*

ID: 94 The Influence of Electric Vehicle Penetration on Distribution Transformer Ageing Rate and Performance
Bekarys Kuspan (Electrical and Computer Engineering Department, Nazarbayev University); Mehdi Bagheri (Electrical and Computer Engineering Department, Nazarbayev University)*; Oveis Abedinia (Department of Electric Power Engineering Budapest University of Technology and Economics, Budapest, Hungary); Mohammad Salay Naderi (Electrical and Computer Engineering Department, Tehran North Branch, Islamic Azad University); Ehsan Jamshidpour (ICube (UMR7357), ECAM Strasbourg Europe)

ID: 98 A New Inductive Power Transfer Electric Vehicle Charger with a Power Magnetic Superimposition Communication by Receiving Phase-Control
Takumi Shimonodan (Osaka Institute of Technology)*; Hideki Omori (Osaka Institute of Technology); Toshimitsu Morizane (Osaka Institute of Technology); Noriyuki Kimura (Osaka Institute of Technology)

ID: 108 Calculation of Degradation rates of poly crystalline Si and CIGS PV module using Outdoor linear interpolation method
Yoshiro Izumi (Tokyo University of Science)*

ID: 104 The impact of embedded generation on distribution grid operation
Dávid Motyka (University of Zilina)*; Martina Latkova (Univesity of Zilina); Peter Bracinik (University of Zilina)

ID: 120 Proton Exchange Membrane Fuel Cell Remaining Useful Life Prediction based on Artificial Neural Network
Kui CHEN (FCLAB Université de Technologie Belfort-Montbéliard)*; Salah Laghrouche (Unknown); abdesslem djerdir (UTBM)

ID: 119 Active-Flux-Based Super-Twsiting Sliding Mode Observer for Sensorless Vector Control of Synchronous Reluctance Motor Drives
Yongchao Liu (FEMTO-ST (UMR CNRS 6174), UTBM, UBFC)*; Salah Laghrouche (Unknown); Abdoul N'Diaye (Unknown); Maurizio Cirrincione (USP, UTBM)

ID: 321 Smart Grid Integration of Renewable Energy Systems
Ahsan Shahid (University of Illinois at Chicago)*

ID: 130 Power Flow Control of a Standalone Photovoltaic –Fuel Cell- Battery Hybrid System
Nahla Ezz Eldin Zakzouk (Arab Academy for Science and Technolgy and Maritime Transport)*; Samah Elsafty (Arab Academy for Science and technology and Maritime Transport)

ID: 135 Identification of Partial Shading in Photovotaic Arrays Using Optimal Sensor Placement Scheme
Jieming Ma (Xl'an Jiaotong-liverpool University)*

ID: 142 Benefits of Demand Side Management strategies for an island supplied by marine renewable energies
Anthony Roy (Université de Nantes - Laboratoire IREENA)*; Francois Auger (Université de Nantes - Laboratoire IREENA); Salvy Bourguet (Université de Nantes - Laboratoire IREENA); Florian Dupriez-Robin (CEA Tech Pays de Loire); Tuan Quoc Tran (French Alternative Energies and Atomic Energy Commission (CEA))

ID: 150 Influence of the temporal resolution of the water consumption profile on photovoltaic water pumping systems modelling and sizing
Simon Meunier (Group of electrical engineering, Paris)*; Matthias Heinrich (DargaTech SARL); Loic Queval (Group of electrical engineering, Paris); Judith A. Cherni (Centre for Environmental Policy, Imperial College London); Lionel Vido (SATIE, Univ. de Cergy-Pontoise); Arouna Darga (Group of electrical engineering, Paris); Philippe Dessante (Group of electrical engineering, Paris); Bernard Multon (SATIE, ENS Rennes); Claude Marchand (Group of electrical engineering, Paris)

ID: 154 Modeling disaggregated electric vehicle availability on a low-voltage distribution network
Andrea Ballarin (FAU Erlangen-Nürnberg)*; Reinhard German (FAU Erlangen-Nürnberg)

ID: 384 Improved performance of a PV solar panel with adaptive neuro fuzzy inference system ANFIS based MPPT
Amara Kari Karima (Engineering Advanced Technology Laboratory (LATAGE), Mouloud Mammeri University,Tizi-Ouzou, Algeria)*; Arezki FEKIK (Electrical Engineering Advanced Technology Laboratory (LATAGE),); Ali Malek (Centre de Développement des Energies Renouvelables, BP. 62 Route de l'Observatoire, Bouzareah 16340 Alger, Algeria.); El Bey Bourennane (Faculté des sciences Mirande France); Dalila Hocine (Electrical Engineering Advanced Technology Laboratory (LATAGE),); Toufik Bakir (Le2i Laboratory CNRS UMR 6306, University of Burgundy, Aile des Sciences de l'Ingénieur, 9 Avenue Alain Savary, BP 47870, 21078 Dijon, France .); HAMIDA Mohamed Lamine (UMMTO)

ID: 158 Correlation between panel performance and environmental parameters and determination of cleaning frequency
AIDARA Mohamed Cherif (Centre International de Formation et de Recherche en Energie Solaire)*

POSTER SESSION-2 (15 October 2018 MONDAY, 16:20-18:00) HALL: Lisbonne

TRACK **SESSION CHAIRS: Halil Ibrahim Bulbul, Andrea Ballarin, Noriyuki Kimura**

ID: 164 Simulation Analysis of Really Occurred Accident Caused by Short Circuit Failure of Blocking Diode and Bypass Circuit in the Photovoltaics System
Norio Ishikura (National Institute of Technology, Yonago College)*; Tomoki Okamoto (National Institute of Technology, Yonago College); Ikuo Nanno (National Institute of Technology, Ube College); Toshiyuki Hamada (National Institute of Technology, Ube College); Shinichiro Oke (National Institute of Technology, Tsuyama College); Masayuki Fujii (National Institute of Technology, Oshima College)

ID: 472 Real Time Operation of Smart Homes with PV and Battery Systems under Variable Electricity Rate Schedules and Transactive Power Flow
Huangjie Gong (University of Kentucky)*; Oluwaseun Akeyo (University of Kentucky); Vandana Rallabandi (Univeristy of Kentucky); Dan M Ionel (University of Kentucky)

ID: 478 Simulation Studies for a Multi-MW Hybrid Wind-Solar PV System for Desalination Plants
Vandana Rallabandi (Univeristy of Kentucky)*; Oluwaseun Akeyo (University of Kentucky); Nasser Alawhali (University of Kentucky); Dan M Ionel (University of Kentucky)

ID: 163 A Novel Platform for Simulating the Impact of Distributed Generation and Electric Mobility on Distribution Networks
Juan D Hoyos Giraldo (Universidad Nacional de Colombia)*; Anderson Salazar Zuluaga (Universidad Nacional de Colombia); Germán Zapata Madrigal (Universidad Nacional de Colombia); Rodolfo García Sierra (Codensa S.A. ESP)

ID: 170 A New Type of Wireless Electric Vehicle Charger with Miniaturized Single-Ended High Power-Factor Converter
Aoi Murakami (Osaka Institute of Technology)*; Hideki Omori (Osaka Institute of Technology); Toshimitsu Morizane (Osaka Institute of Technology); Noriyuki Kimura (Osaka Institute of Technology)

ID: 194 In-situ Measurements of Vanadium Crossover Diffusivities in VRFB during charge-discharge cycles
Geonhui Gwak (Inha University); Kyeongmin Oh (Inha University)*; Hyunchul Ju (Inha University)

ID: 236 Solar to hydrogen conversion using concentrated multi-junction photovoltaics and distributed micro-converter architecture
Kolja Neuhaus (LAAS-CNRS, UPS)*; Corinne Alonso (LAAS)

ID: 239 Taking Advantage of PV Energy in Copper Electrowinning Requires a Trend Reversal: Increasing Inter-Electrodes Spacing
Eduardo P Wiechmann (Universidad de Concepcion)*; Jorge Henriquez (Universidad de Concepcion); Pablo Aqueveque (Universidad de Concepcion); Anibal Morales (Universidad Catolica de la Santisima Concepcion); Jonhy Diaz (Universidad de Concepcion); Camilo Manriquez (CODELCO)

ID: 249 Innovative Single Sensor PV MPPT Controller
A/Ghani Harrag (Ferhat Abbas University Setif 1)*; Sabir Messalti (Msila university)

ID: 228 Averaged MIMO Converter Modeling for Active Power Distribution Node Enhanced Reconfigurable Grids
Alvaro Cardoza (University of Pittsburgh)*; Alexis Kwasinski (University of Pittsburgh)

ID: 187 Investments_in_Renewables_Decision_Making_Based_ on_ Technology,_Finance,_Information_and_ Intangibles
Francisco R A C Baracho (UFOP)*; Renata Baracho (UFMG); Rogério Bonatti (UFMG); Cláudio Homero (CEMIG)

ID: 264 Fuzzy logic controller for an electrolytic capacitor-less inverter for an IPMSM drive applications
Issam Smadi (Jordan University of Science & Technology)*

ID: 281 Thermal modeling of lithium-ion batteries with LiFePO4 electrodes
Geonhui Gwak (Inha University)*; Hyunchul Ju (Inha University)

ID: 189 Monitoring PV systems under noisy conditions using a model-based fault detection approach
HARROU Fouzi (King Abdullah University of Science and Technology (KAUST))*

ID: 54 Experimental and statistical study of connector resistance factor influence on crimping validation process
Ocoleanu Constantin Florin (University of Craiova, Electrical Engineering Faculty)*; Dolan Alin Iulian (University of Craiova, Electrical Engineering Faculty)

ID: 232 A Synthetic Forecast Engine for Wind Power Prediction
Mehdi Bagheri (Electrical and Computer Engineering Department, Nazarbayev University)*; Oveis Abedinia (Department of Electric Power Engineering Budapest University of Technology and Economics, Budapest, Hungary); Behrouz Sobhani (Electric Distribution Company of Ardabil); Noradin Ghadimi (Young Researchers and Elite Club, Ardabil Branch, Islamic Azad University); Mohammad Salay Naderi (Electrical and Computer Engineering Department, Tehran North Branch, Islamic Azad University)

Date: 16 October 2018	**HALL:**
08:30–17:00	**Registration**
Date: 16 October 2018 - AM	
KEYNOTE	**HALL: Bruxelles**
08:50-09:50	Prof. Concettina Buccella, Italy, **" Low switching frequency modulation techniques for renewable energy multilevel converters"** **Chairs:** Professor Nobumasa Matsui, Professor V. Fernao Pires
KEYNOTE	**HALL: Bruxelles**
09:50-10:50	Prof. Seddik Bacha, France, **"The large-scale integration of renewable electricity generation and HVDC grids"** **Chairs:** Professor Mamadou B Camara, Professor Daniel O. Icaza
INDUSTRIAL TALK	**HALL: Bruxelles**
10:50-11:20	Mr. Akira Kawaguchi, TMEIC, Japan "**More Renewables, More Stable Power and More Energy Efficiency in Power Grid**" **Chairs:** Professor Fujio Kurokawa, Professor Rosario Miceli
11:20-11:40	**COFFEE BREAK**

ORAL PRESENTATIONS	
Date: 16 October 2018 - PM	**HALL: Bruxelles**
MAIN TRACK: Control Techniques for RESs	**SESSION CHAIRS: Adel Nasiri, Naci**
11:40-12:00	**ID: 452 Peer to Peer Business Model Approach for Renewable Energy Cooperatives** Gurkan Soykan (Bahcesehir University)*; Burak Denktas (Bahcesehir University); Samed Pekdemir (Bahcesehir University)
12:00-12:20	**ID: 470 Digital Control DC-DC Converter with Novel DPWM Signal Generator for Renewable Energy System** Yudai Furukawa (Fukuoka University)*; Hirokazu Nakamura (Nagasaki University); Haruhi Eto (Nagasaki University); Tadashi Suetsugu (Fukuoka University); Fujio Kurokawa (Nagasaki Institute of Applied Science)
12:20-12:40	**ID: 482 improvement of the water level assessment of wind pumping system** Olfa Gam (ENIM)*
12:40-13:00	**ID: 485 Model-Based development of solar-to-hydrogen conversion system with dynamic operating point control of multiple DC-DC converters** Yu Yonezawa (Fujitsu laboratories ltd.)*; Atsushi Manabe (FUJITSU Advanced Technologies Ltd.); HIROSHI NAKAO (Fujitsu laboratories ltd. / Nagasaki University); Hideki Takauchi (Fujitsu laboratories ltd.); Yoshiyasu Nakashima (Fujitsu laboratories Ltd.); Hiroji Ebe (Fujitsu Laboratories Ltd., (Presently Japan Science and Technology Agency)); Yasuyuki Ota (University of Miyazaki); Daiji Yamashita (The University of Tokyo); Masakazu Sugiyama (The University of Tokyo)
13:00-13:20	**ID: 103 Optimization Design Suite for Expandable Micro-Grid Clusters** Kazuaki Iwamura (Waseda University)*
13:20-14:20	**LUNCH BREAK**

ORAL PRESENTATIONS	
Date: 16 October 2018 - PM	**HALL: Bruxelles**
MAIN TRACK: Decision Support Systems for RESSs	**SESSION CHAIRS: Gurkan Soykan, Yudai Furukawa**
14:20-14:40	**ID: 503 Very Short-Term Estimation of Global Horizontal Irradiance Using Data Mining Methods** Medine Colak (Gazi University)*; Mehmet Yesilbudak (Nevsehir Haci Bektas Veli University); Ramazan Bayindir (Gazi University)
14:40-15:00	**ID: 313 A High Efficiency, Decoupled On-board Battery Charger with Magnetic Control** Adel Nasiri (University of Wisconsin Milwaukee)*; Yuqi Wei (University of Wisconsin-Milwaukee); Necmi Altin (UW-Milwaukee)
15:00-15:20	**ID: 340 A Model for Flexibility Analysis of RESS with Electric Energy Storage and Reserve** Peyman Mazidi (Loyola Andalucia University)*; Nicholas Gregory Baltas (Loyola Universidad Andalucia); Moshtaba Eliassi (Loyola University Andalusia); Pedro Rodriguez (Loyola University Andalusia)
15:20-15:40	**ID: 370 Event-Based Under-Frequency Inertia Emulation Scheme for Severe Conditions** Moshtaba Eliassi (Loyola University Andalusia)*; Pedro A. Betancourt Paulino (Loyola University Andalusia); Roozbeh Torkzadeh (Loyola University Andalusia); Pedro Rodriguez (Loyola University Andalusia)
15:40-16:00	**ID: 66 Selective Harmonic Elimination for Modular Multilevel Converter with Averaging and Circulating Current Control** Shrinath Kannan (Maschinenfabrik Reinhausen GmbH)*; Poongothai C (Indian Institute of Technology Madras); Ilknur Colak (Maschinenfabrik Reinhausen GmbH); Waqas Ali (Maschinenfabrik Reinhausen GmbH)
16:00-16:20	**COFFEE BREAK**
MAIN TRACK: Energy Savings for Vehicular Technology	**SESSION CHAIRS: Peyman Mazidi, Waqas Ali**
16:20-16:40	**ID: 95 A Novel Type of Single-Ended Wireless V2H with Stable Power Transfer Operation against Circuit Constants Variation** Kodai Kuroda (Osaka Institute of Technology)*; Hideki Omori (Osaka Institute of Technology); Masahito Tsuno (Nichicon Co. Ltd.); Noriyuki Kimura (Osaka Institute of Technology); Toshimitsu Morizane (Osaka Institute of Technology)
16:40-17:00	**ID: 92 A 3kW Single-Ended Wireless EV Charger with a Newly Developed SiC-VMOSFET** Ryota Maeno (Osaka institute technology)*; Hideki Omori (Osaka Institute of Technology); Hisato Michikoshi (Advanced Power Electronics Research Center National Institute of Advanced Industrial Science and Technology (AIST));Noriyuki Kimura (Osaka Institute of Technology); Toshimitsu Morizane (Osaka Institute of Technology)
17:00-17:20	**ID: 116 Electric Vehicles Charging Concepts for Lithium Based Batteries** Ali Farzan Moghaddam (Gent University)*; Mohannad Jabbar Mnati (Ghent University); Haitao Sun (Gent University); Alex Van den Bossche (University of Gent Belguim)
17:20-17:40	**ID: 500 Active distribution grids and EV charging stations: a centralized approach for their integration** Maria Carmen Falvo (University of Rome Sapienza)*
17:40-18:00	**ID: 63 Filter Hardware Optimization of Grid-Tied Converter: LCL vs. LLCL Filter** Ki-Bum Park (ABB Switzerland Ltd)*; Ralph Burkart (ABB Switzerland Ltd)
18:00-18:20	**ID: 521 Improving High Frequency Transformers behavior for DC-DC Converter Used in Electric Vehicles** Di Noia L.P., Miceli R., Piegari L., Rizzo R., (University of Naples Federico II, University of Palermo)

ORAL PRESENTATIONS	
Date: 16 October 2018 - PM	**HALL: Lisbonne**
MAIN TRACK: Energy Savings for Vehicular Technology	**SESSION CHAIRS: Ki-Bum Park, Muhammad Awais**
11:40-12:00	**ID: 245 Voltage Unbalance and Overvoltage Mitigation by Using the Three-phase Damping Control Strategy in Battery Storage Applications** Dimitar V. Bozalakov (Ghent University)*; Mohannad Jabbar Mnati (Ghent University); Joannes I Laveyne (Ghent University); Alex Van den Bossche (University of Gent Belguim); Lieven Vandevelde (Ghent University)
12:00-12:20	**ID: 513 Multiobjective optimization of Grid – Photovoltaic – Electric Vehicle Hybrid system in Smart Building with Vehicle-to-Grid (V2G) concept** Harun TURKER (Haute École d'Ingénierie et d'Architecture de Fribourg / TH Smart Grid Expertise & Consulting); Ilhami Colak (Nisantasi University)*
12:20-12:40	**ID: 514 Optimal Peak Shaving with Vehicle-to-Grid Capability of Electric Vehicles in Smart Grids** Harun TURKER (Haute École d'Ingénierie et d'Architecture de Fribourg / TH Smart Grid Expertise & Consulting); Ilhami Colak (Nisantasi University)*
12:40-13:00	**ID: 314 Development of the Control Scheme for a Multi-Port Solid State Transformers** Adel Nasiri (University of Wisconsin Milwaukee)*; Mehdy Khayamy (UW-Milwaukee)
13:00-13:20	**ID: 300 Bidirectional Buck Three-Phase AC/DC Converter Using SiC MOSFETs** Shinichi Nishimi (Nagoya Institute of technology)*; Takaharu Takeshita (Nagoya Institute of Technology)
13:20-14:20	**LUNCH BREAK**

ORAL PRESENTATIONS	
Date: 16 October 2018 - PM	**HALL: Lisbonne**
MAIN TRACK: Energy Savings for Vehicular Technology	**SESSION CHAIRS: Takaharu Takeshita, Nahla Ezz Eldin Zakzouk**
14:20-14:40	**ID: 375 A Capacitance Design Guideline of Snubber Capacitors for Soft Switching in Bi-directional Inductive Power Transfer System Considering Battery Charging Cycle** Ryosuke Ota (Tokyo University of Science)*; Dannisworo Sudarmo Nugroho (Tokyo University of Science); Nobukazu Hoshi (Tokyo University of Science)
14:40-15:00	**ID: 464 A Fuzzy Controller for Stabilization of Asynchronous Machine** Abdelkader Harrouz (University of Draïa); Kadouri Nourdine (LEESI laboratory); Korhan KAYISLI (Nisantasi University)*; Halil Ibrahim BULBUL (Gazi University); Ilhami Colak (Nisantasi University)
15:00-15:20	**ID: 293 Applicability of Direct Reuse and Recycled Rare Earth Magnets in Electro-mobility** Pranshu Upadhayay (Valeo & Grenoble INP)*; Muhammad Awais (University of Birmingham)
15:20-15:40	**ID: 520 A Constrained Optimal Model Predictive Control for Mono Inverter Dual Parallel PMSM Drives** Cervone A., Di Noia L.P., Miceli R., Rizzo R., Spina I., (University of Naples Federico II, University of Palermo)
15:40-16:00	**ID: 217 Photovoltaic and Wind Turbine Generation System for Constant Power Supply with IoT-based Monitoring and Control** Jose M Gutirerrez-Villalobos (Autonomous University of Queretaro)*; Julio Mora-Vazquez (Autonomous University of Queretaro); Moises Martínez-Hernández (Autonomous University of Queretaro); Perla Ocampo-Rangel (Autonomous University of Queretaro)
16:00-16:20	**COFFEE BREAK**
MAIN TRACK: Energy Savings and Control Techniques	**SESSION CHAIRS: Ali Farzan Moghaddam, Yuji Mizuno**
16:20-16:40	**ID: 60 Direct Power Control Strategy to Enhance the Dynamic Behavior of DFIG During Voltage Sag** Rogério Jacomini (IFSP)*; Alfeu Sguarezi Filho (Universidade Federal do ABC - UFABC/CECS)
16:40-17:00	**ID: 5 Implementation of Standalone PV Micro Grid with Multi-level converters for Rural Electrification** Ignace Rasoanarivo (University)*
17:00-17:20	**ID: 131 Mitigation of Oscillating Power Effect on PV power and Grid Current in Single-phase Single-stage PV Grid-tied System** Nahla Ezz Eldin Zakzouk (Arab Academy for Science and Technolgy and Maritime Transport)*
17:20-17:40	**ID: 339 MPPT Based Switched Reluctance Generator Control for a Grid Interactive Wind Energy System** Shefali Jagwani (BMS College of Engineering Bangalore)*; Gyanendra Kumar Sah (BMS College of Engineering, VTU); L VENKATESHA (BMS College of Engineering)
17:40-18:00	**ID: 42 Multi-Winding Equalization Technique for Lithium Ion Batteries for Electrical Vehicles** Ali Farzan Moghaddam (Gent University)*; Alex Van den Bossche (University of Gent Belguim)

ORAL PRESENTATIONS	
Date: 16 October 2018 - PM	**HALL: Berlin**
MAIN TRACK: Energy Savings and Control Techniques	**SESSION CHAIRS: Shefali Jagwani, Rogério Jacomini**
11:40-12:00	**ID: 392 Reduction of Transmission Power Error and Current for Dual Active Bridge DC-DC Converter in Energy Storage Systems** Jun-ichi Itoh (Nagaoka University of Tec.); Kengo Kawauchi (Nagaoka University of Technology)*; Keisuke Kusaka (Nagaoka University of Technology)
12:00-12:20	**ID: 414 Multilevel Single Phase Isolated Inverter with Reduced Number of Switches** Cristian Verdugo (Universitat Politècnica de Catalunya)*; Mohamed Elsaharty (Universitat Politècnica de Catalunya); Jose Ignacio Candela (Universitat Politècnica de Catalunya); Pedro Rodriguez (Loyola University Andalusia)
12:20-12:40	**ID: 418 A New Load Prediction Method and Management of Distributed Power System in Island Mode of a Large Hospital** Yuji Mizuno (Nagasaki Institute of Applied Science)*; Nobumasa Matsui (Nagasaki Institute of Applied Science)
12:40-13:00	**ID: 67 Control of Bidirectional Quadratic DC-DC Converters for Storage Support of DC Power Grids** Armando Cordeiro (ISEL - IPL)*; V. Fernao Pires (ESTSetubal/IPS); Daniel Foito (ESTSetubal - IPS)
13:00-13:20	**ID: 209 Fault Detection Strategy for Grid-Tie Three-Phase Photovoltaic Inverter** Oluwafemi J Aworo (University of Pittsburgh)*; Alexis Kwasinski (University of Pittsburgh)
13:20-14:20	**LUNCH BREAK**

ORAL PRESENTATIONS	
Date: 16 October 2018 - PM	**HALL: Berlin**
MAIN TRACK: Future Challenges and Directions for RESSs	**SESSION CHAIRS: V. Fernao Pires, Matthew J Davison**
14:20-14:40	**ID: 43 Generic Distributed Photovoltaic Cost Outlook Methodology: Australian Market Application Example** Abdulrahman S. Alassi (Iberdrola)*
14:40-15:00	**ID: 365 Synchrophasor Measurements for Control of Grid Interactive ESS: Design Alternatives** Roozbeh Torkzadeh (LOYOLA. Tech)*; Roozbeh Torkzadeh (Loyola University Andalusia); Moshtaba Eliassi (Loyola University Andalusia); Peyman Mazidi (Loyola Andalucia University); Pedro Rodriguez (Loyola University Andalusia)
15:00-15:20	**ID: 447 A Decentralized Adaptive Scheme for Protection Coordination of Microgrids Based on Team Working of Agents** Adel Nasiri (University of Wisconsin Milwaukee)*; Hesamedin Sadeghi (Amirkabir University of Technology); Seyed Amir Hosseini (Amirkabir University of Technology)
15:20-15:40	**ID: 224 Study of Spatial Asynchrony Analysis for Solar Irradiance** Takahiro Takamatsu (Tokai University)*; Takashi Nakajima (Tokai University)
15:40-16:00	**ID: 285 The Assessment of Wind and Sea Flow Energy Production from Seas by Using Energy Storage Unit** Ahmet Aktaş (Istanbul Geilisim University)*; Arif Şenol Şener (Nişantaşı University); Yağmur Kırçiçek (Karabük University)
16:00-16:20	**COFFEE BREAK**
MAIN TRACK: New Trends and Technologies for RESSs	**SESSION CHAIRS: Abdulrahman S. Alassi, Takahiro Takamatsu**
16:20-16:40	**ID: 263 A Single-Switch DC/DC Buck-Boost Converter With Extended Output Voltage** V. Fernao Pires (ESTSetubal/IPS)*; Daniel Foito (ESTSetubal - IPS); Armando Cordeiro (ISEL - IPL); José Silva (INESC-ID, IST, Universidade de Lisboa)
16:40-17:00	**ID: 46 Active Clamp Resonant SEPIC Converter for Local Voltage Regulation in 48V DC Based Energy Management Systems** Satoshi Ikeda (Panasonic)*; Kazuki Tsuji (Nagasaki Institute of Applied Science); Kazuhiro Kajiwara (Nagasaki Institute of Applied Science); Fujio Kurokawa (Nagasaki Institute of Applied Science)
17:00-17:20	**ID: 445 Predictive Boundary Conduction Mode PFC Converter with Optimized Variable On-time Control for Driving LED Lighting** Jizhe Wang (Nagasaki University)*; Haruhi Eto (Nagasaki University); Fujio Kurokawa (Nagasaki Institute of Applied Science)
17:20-17:40	**ID: 454 Effect of the Complexing Agents on the Properties of Electrodeposited CZTS Thin Films** SARA AZMI (Laboratory of Physical chemistry and bioorganic chemistry faculty of sciences and technics Mohammedia Morocco)*; Mohamed NOHAIR (Laboratory of Physical chemistry and bioorganic chemistry faculty of sciences and technics Mohammedia Morocco); Mohssin el Marakchi (Laboratory of Physical chemistry and bioorganic chemistry faculty of sciences and technics Mohammedia Morocco); Manuele Dabala (University of Padova); El Mati KHOUMRI (Laboratory of Physical chemistry and bioorganic chemistry faculty of sciences and technics Mohammedia Morocco)
17:40-18:00	**ID: 204 The use of Advanced Storage Systems for Voltage, Frequency and CO2 emission control in Ship Power Systems.** Giovani Giulio T. T. Vieira (University of Sao Paulo)*; Mauricio B C Salles (University of Sao Paulo); Renato Machado Monaro (Universidade de São Paulo)

ORAL PRESENTATIONS	
Date: 16 October 2018 - PM	**HALL: Athenes**
MAIN TRACK: Performance Analysis of RESs	**SESSION CHAIRS: Haruhi Eto, Sara Azmi**
11:40-12:00	**ID: 330 Effect of Boric Acid Doped Pedot:PSS Layer on the Photovoltaic Parameters of P3HT:PCBM Based PV Cell** Onder Eyecioglu (Nisantasi University)*; Ozlem Yagcı (Yildiz Technial University); Murat Beken (Nisantasi University); Orhan Icelli (Yildiz Technial University)
12:00-12:20	**ID: 127 Design and Control of a Single Phase DC/Rectified AC/AC Inverter for low THD Applications** Burak Tekgun (Abdullah Gul University)*; Didem Tekgün (Abdullah Gül University); Irfan Alan (Abdullah Gul University); Mohamed Badawy (San Jose State University)
12:20-12:40	**ID: 112 Effects of Hurricane Maria on Renewable Energy Systems in Puerto Rico** Alexis Kwasinski (University of Pittsburgh)*
12:40-13:00	**ID: 2 Decentralised Energy Market for Implementation into the Intergrid Concept - Part I: Isolated System** Matthew J Davison (University of Newcastle, Australia)*
13:00-13:20	**ID: 87 Decentralised Energy Market for Implementation into the Intergrid Concept - Part 2: Integrated System** Matthew J Davison (University of Newcastle, Australia)*
13:20-14:20	**LUNCH BREAK**

ORAL PRESENTATIONS	
Date: 16 October 2018 - PM	**HALL: Athenes**
MAIN TRACK: Performance Analysis of RESs	**SESSION CHAIRS: Alexis Kwasinski, Murat Beken**
14:20-14:40	**ID: 168 Performance Analyses of Regenerative Organic Rankine Cycle System for Solar Micro Combined Heat and Power Generation Applications** Wahiba Yaici (CanmetENERGY/Natural Resources Canada)*; Evgueniy Entchev (CanmetENERGY/Natural Resources Canada); Michela Longo (Politecnico di Milano)
14:40-15:00	**ID: 411 RESCoin to improve Prosumer Side Management into Smart City** **Mariacristina Roscia ("University of Bergamo, Italy")***
15:00-15:20	**ID: 393 Wind power harnessing of an integrated HESG-based wind conversion system model** Amina Mseddi (Cergy Pontoise University)*; Sandrine Le Ballois (Cergy Pontoise University); Helmi Aloui (National School of Electronics and Telecommunications of Sfax); Lionel Vido (SATIE, Univ. de Cergy-Pontoise)
15:20-15:40	**ID: 230 Long-term forecasting of wind speed in Brazil using GAS modelling** Soraida Aguilar Vargas (PUC-Rio)*; Daiane Rodrigues dos Santos (Universidade Cândido Mendes); Reinaldo Souza (PUC-Rio)
15:40-16:00	**ID: 415 Stability Analysis of a Grid-Connected VSC Controlled by SPC** Leonardo V. Marin (Polytechnic University of Catalonia)*; Andres Tarraso (Polytechnic University of Catalonia); Jose Ignacio Candela (Universitat Politècnica de Catalunya); Pedro Rodriguez (Loyola University Andalusia)
16:00-16:20	**COFFEE BREAK**
MAIN TRACK: Smart grids and RESSs	**SESSION CHAIRS: Wahiba Yaici , Mohammed Wadi**
16:20-16:40	**ID: 134 Predictive current-limiting thyristor control in the modified thyristor-equipped Vienna rectifier** Tomasz Balkowiec (Institute of Control and Industrial Electronics)*; Dominik A. Gorski (Institute of Control and Industrial Electronics); Wlodzimierz Koczara (Institute of Control and Industrial Electronics)
16:40-17:00	**ID: 96 Microgrid energy management using a two stage rolling horizon technique for controlling an energy storage system.** Mahmoud Hassan Elkazaz (University of Nottingham)*; Mark Sumner (University of Nottingham); David Thomas (University of Nottingham)
17:00-17:20	**ID: 192 Grid management technology for the integration of renewable energy sources into the transmission system** Levente Rácz (Budapest University of Technology and Economics)*; Dávid Szabó (Budapest University of Technology and Economics); Bálint Németh (Budapest University of Technology and Economics)
17:20-17:40	**ID: 301 A Wideband Fault Location Scheme for Active Distribution Systems** Fathy Aboshady (University of Nottingham)*; Mark Sumner (University of Nottingham); David Thomas (Univ. of Nottingham)
17:40-18:00	**ID: 149 A comparison of stability analysis of constant power load with detailed model in DC microgrids** Hesam Mazaheri Tehrani (Universidad Politécnica de Madrid)*; Airán Francés (CEI); Rafael Asensi (CEI); Javier Uceda (CEI)

ORAL PRESENTATIONS	
Date: 16 October 2018 - PM	**HALL: Londres**
MAIN TRACK:Smart grids and RESSs	**SESSION CHAIRS: Mahmoud Hassan Elkazaz, G N Reddy**
11:40-12:00	**ID: 352 Protection Coordination Practices for Industrial Ring Distribution Network, Case Study of Organized Industrial Zone** Abdulfetah Shobole (İstanbul Sabahattin Zaim Üniversitesi); Mustafa BAYSAL (Yildiz Technical University); Mohammed Wadi (İstanbul Sabahattin Zaim Üniversitesi)*; Mehmet Rıda TUR (MARDİN ARTUKLU ÜNİVERSİTESİ)
12:00-12:20	**ID: 351 Software-Defined Networking for Improving Security in Smart Grid Systems** Sedef Gündüz (Gazi University)*; Seref SAGIROGLU (Gazi University)
12:20-12:40	**ID: 155 Impact on energy saving of active phase count control to a DC/DC converter in a DC micro grid** Margot M Gaetani-Liseo (LAAS-CNRS)*
12:40-13:00	**ID: 220 Channel Modeling of Low Voltage NB-PLC Network using Statistical and Deterministic Channel Modeling Approaches** Bilal Masood (The Superior College, University Campus, Lahore, Pakistan)*; Waseem Nazar (The University of Lahore, Lahore); Rabia Masood (COMSATS University, Lahore, Pakistan)
13:00-13:20	**ID: 439 Study of Photovoltaic Cells Implantation in a Long-Endurance Airplane Drone.** Vincent VB Boitier (LAAS CNRS)*
13:20-14:20	**LUNCH BREAK**

ORAL PRESENTATIONS	
Date: 16 October 2018 - PM	**HALL: Londres**
TRACK 9: Renewable Energy and Power Electronics: Modelling,…..	**SESSION CHAIRS: Youcef Soufi**
14:20-14:40	**ID: 517 High Performance FOC for Induction Motors with Low Cost ATSAM3X8E Microcontroller** Authors: V. Castiglia, P. Ciotta, A. O. Di Tommaso, R. Miceli and C. Nevoloso
14:40-15:00	**ID: 203 Multiple-input Soft-switching Step-up/down Converter for Renewable Energy Systems** Zhuoya Sun (Hanyang University); Sungwoo Bae (Hanyang University)*
15:00-15:20	**ID: 252 Development of a GUI-based mathematical model of an alkaline water electrolyzer: for optimizing hydrogen renewable energy systems** G N Reddy (Lamar University)*; Sadish Srestha (Lamar University); Vijaya Krishna Teja Bangi (Lamar University); Ramesh Guduru (Lamar University)
15:20-15:40	**ID: 312 Generalized Small-Signal Modelling of Dual Active Bridge DC/DC Converter** Osama Hebala (Robert Gordon University)*
15:40-16:00	**ID: 453 Impedance Source Interlinking Converter for Microbial Electrosynthesis Energy Storage Applications** Mahdi Shahparasti (Universitat Politecncia de Catalunya)*; Joan Rocabert (Universitat Politècnica de Catalunya (UPC) · BarcelonaTech); Raúl Santiago Muñoz Aguilar (Universitat Politècnica de Catalunya (UPC) · BarcelonaTech); Alvaro Luna (Universitat Politecncia de Catalunya); Pedro Rodriguez (Loyola University Andalusia)
16:00-16:20	**COFFEE BREAK**
Date: 16 October 2018 - PM	**HALL: Londres**
TRACK 5: Power quality improvement for Renewable...	**SESSION CHAIRS: Samir Moulahoum and Nadir Kabache**
16:20-16:40	**ID: 167 Current Ripple Reduction for Photovoltaic Powered Single-Phase Buck-Boost Differential Inverter under Nonlinear Loads** Nanjun Lu (Energy Research Institute, Interdisciplinary Graduate School, Nanyang Technological University)*; Branislav Hredzak (The University of New South Wales)
16:40-17:00	**ID: 218 Analysis of Hydrogen Dry Cell for Alkaline Water Electrolysis** G N Reddy (Lamar University)*; Sadish Srestha (Lamar University); Bishes Acharya (Lamar University); Vijaya Krishna Teja Bangi (Lamar University); Ramesh Guduru (Lamar University)
17:00-17:20	**ID: 401 Influence of Load Frequency Control Using H ∞ Control on Load Shut Down** Kensyu Niimi (Aichi Institute of Technology)*; Kazuto YUKITA (Aichi Institute of Technology)
17:20-17:40	**ID: 457 Simplicity and Performance of Direct Current Control DCC Compared with other Identification Algorithms for Shunt Active Power Filter** Ahmed Bouhouta (Research Laboratory of Electrical Engineering & Automatic, LREA, University of Médéa); Samir Moulahoum (University of Media)*; Nadir Kabache ("Research Laboratory LREA, University of Media"); Ilhami Colak (Nisantasi University)
17:40-18:00	**ID: 522 Stabilization of a DC-Link of Microgrids feeding a Inverter-BLDC motor drive using a PI-Fuzzy** Mohammed Kh. Al-Nussairi, Ramazan Bayindir (Gazi University)

Date: 17 October 2018	**HALL:**
08:30-17:00	**Registration**
12:20-14:20	POSTER SESSION-3 (17 October 2018 WEDNESDAY, 12:20-16:00) HALL: Lisbonne
16:20-18:00	POSTER SESSION-4 (17 October 2018 WEDNESDAY, 16:20-18:00) HALL: Lisbonne
ORAL PRESENTATIONS	
Date: 17 October 2018 - AM	**HALL: Londres**
TRACK 1: Intelligent Systems For Renewable Energy Application	**SESSION CHAIR: M. Arif Wani**
09:00-09:20	**ID: 493 Synergistic Approach for Combining SVM Algorithms for Wind Speed Prediction** Arif Wani (University of Kashmir)*; Heena Farooq (University of Kashmir)
09:20-09:40	**ID 494 A New Position Specific Scoring Vector Based Approach for Wind Speed Prediction** Arif Wani (University of Kashmir)*; Heena Farooq (University of Kashmir)
09:40-10:00	**ID: 15 Modeling, simulation and stability analysis of a low-power wind turbine for the supply of energy to the Amazon Jungle and Galapagos in Ecuador** Daniel O Icaza (Catholic University of Cuenca, Cuenca, Ecuador)*
10:00-10:20	**ID: 492 Investigation on properties of molten salt enhanced with nanoparticle and copper foam** Xin Xiao (University of Leeds)
10:20-10:40	**ID: 402 Kernel Density Estimation for Stochastic Modeling of PV Power Output** Sergei Trashchenkov (Pskov State University)*; Sergio Pires Pimentel (Federal University of Goias); Victor Astapov (Tallinn University of Technology); Andres Annuk (Estonian University of Life Sciences); Enes Goncalves Marra (Federal University of Goias)
10:40-11:00	**COFFEE BREAK**
MAIN TRACK: Policies and Strategies for RESSs	**SESSION CHAIR: Abdul Gafoor, Wenhua Liu**
11:00-11:20	**ID: 82 An alternative approach to the feasibility of photovoltaic power stations in light of falling PV panel prices** Alo Allik (Estonian University of Life Sciences)*; Andres Annuk (Estonian University of Life Sciences)
11:20-11:40	**ID: 258 How Innovation Drives the Change in the Energy Mix: Evidence from California's Residential PV Market** Itzel A Zarate (EGADE Business School)*
11:40-12:00	**ID: 190 Support for solar photovoltaic in France– a shift towards capacity market mechanism** Manjola Banja (Former JRC)*; Martin Jegard (Former JRC)
12:00-12:20	**ID: 476 Integration Challenges and Solutions for Renewable Energy Sources, Electric Vehicles and Demand-Side Initiatives in Smart Grids** Mehmet Yesilbudak (Nevsehir Haci Bektas Veli University)*; Ayse Colak (Cankaya University)
12:40-14:00	**LUNCH BREAK**
12:20-14:20	Poster Session-3

Date: 17 October 2018 - PM	HALL: Londres
TRACK 3: Cyber Security and Big Data Analytics for Smart Grids	**SESSION CHAIR: Seref SAGIROGLU**
14:20-14:40	**ID: 38 Exergoeconomic study of the performance of a generation system in a non-interconnected zone in Colombia using syngas in an internal combustion engine with energy accumulation.** Carlos Díaz González (Universidad Autónoma de Bucaramanga)*; Leonardo Pacheco Sandoval (Universidad Autónoma de Bucaramanga)
14:40-15:00	**ID: 425 Modeling, simulation and construction of a wind turbine with chain multiplication system, destined to rural areas of the Canton Cuenca -Ecuador** Daniel O Icaza (Catholic University of Cuenca, Cuenca, Ecuador)*
15:00-15:20	**ID: 480 Do new trends of complex or simplified models will make life cycle assessment more understandable: originate from wind power practice** Wenhua Liu (Shantou University)*
15:20-15:40	**ID: 404 Wavelet Based Transmission Line Protection Scheme Using Centroid Difference and Support Vector Regression** AMIT KUMAR GANGWAR (Indian Institute of Technology, JODHPUR)*; Prof. Abdul Gafoor (IIT Jodhpur)
15:40-16:00	**ID: 56 Optimum Frequency Control Method to Counter Prediction Error Effects in Photovoltaic Generators** Shunsuke Horie (Aichi Institute of Technology)*; Yuji IWANE (Aichi Institute of Technology); Koki Kato (Aichi Institute of Technology); Tadahiro Goda (Aichi Institute of Technology); Kazuto Horie (Aichi Institute of Technoligy); Toshiro Matusmura (Aichi Institute of Technology); Yasuyuki Goto (Aichi Institute of Technology)
16:00-16:20	**COFFEE BREAK**
16:20-18:00	Poster Session-4
MAIN TRACK: Policies and Strategies for RESSs	**SESSION CHAIRS: Daniel O Icaza, Alo Allik**
16:20-16:40	**ID: 422 Application of Model Predictive Control in Modular Multilevel Converter for MTPA Operation and reduced Switching Losses.** Mohit Sharma (San Jose State University)*; Mohamed Badawy (San Jose State University)
16:40-17:00	**ID: 141 Black-box modelling of a Bidirectional Battery Charger for Electric Vehicles** Antreas Naziris (CEI)*; Rafael Asensi (CEI); Javier Uceda (CEI)
17:00-17:20	**ID: 253 EXERGETIC COMPARISON OF TWO CONFIGURATIONS FOR AN UPGRADED ABSORPTION/COMPRESSION HEAT PUMP INTEGRATED ORGANIC MIXTURES.** Toujani Rabeb (University of Tunis el Manar); Ramazan Bayindir (Gazi University); Nahla Bouaziz (University of Tunis El Manar)*; Ilhami Colak (Nisantasi University)
17:20-17:40	**ID: 389 Direct Power Control of a three-phase PWM- Rectifier based on Petri nets for the selection of Switching States** Arezki FEKIK (Electrical Engineering Advanced Technology Laboratory (LATAGE),)*; HAKIM DENOUN (UNIVERSITY MOULOUD MAMMERI OF TIZI OUZOU); Ahmad Taher Azar (Faculty of Computers and Information, Benha University, Egypt; School of Engineering and Applied Sciences, Nile University, Sheikh Zayed District, 6th of October, Giza, Egypt); HAMIDA Mohamed Lamine (UMMTO); Mahdi ATIG (Electrical Engineering Advanced Technology Laboratory (LATAGE),); Malek GHANES (Ecole Centrale de Nantes); NACEREDDINE BENAMROUCHE (Université de Tizi Ouzou Alger)
17:40-18:00	**ID: 267 Joint Optimization of Energy Storage and Wind Power Generation for an Islanded system** Hong Nhung Nguyen (Waseda University)*; Huy Nguyen Duc (Hanoi university of Science and technology); Yosuke NAKANISHI (Waseda University)
18:00-18:30	**CLOSING CEREMONY (HALL: BERLIN)**

Date: 17 October 2018 - AM	HALL: Berlin
MAIN TRACK: Power Devices and Driving Circuits for RESs	**SESSION CHAIR: Yuki Mochizuki, Pedro**
09:00-09:20	**ID: 173 Impact of Fault Ride-Through on Wind Turbines Systems Design** Ahmed Al Ameri (University of Le Havre)*; Yacine Amara (University Le Havre); Cristian NICHITA (University of Le Havre)
09:20-09:40	**ID: 498 Control of a Wind Energy Conversion System using the Energetic Macroscopic Representation** Alireza PAYMAN (Lehavre Univ)*; abdoulaye koita (Universit Le Havre); brayima DAKYO (Universit Le Havre); daniel hissel (Université Bourgogne Franche-Comté)
09:40-10:00	**ID: 222 Design and Implementation Gate Driver Circuit for Three-Phase Grid Tide Photovoltaic Inverter Application** Mohannad Jabbar Mnati (Ghent University)*; Adnan Ali (Middle Technical University); Shahad Al-yousif (Management & Science University); Alex Van den Bossche (University of Gent Belguim)
10:00-10:20	**ID: 335 MISSION PROFILE IMPACT ON CAPACITOR RELIABILITY IN PV SINGLE-STAGE INVERTERS** João M. Lenz (Federal University of Santa Maria)*; José Renes Pinheiro (Federal University of Santa Maria)
10:20-10:40	**ID: 133 Implementation of VAWT in Energy Generation Decentralization in Developing Countries Social, Engineering & Open Data case study in South-East Asia** Ahmad Thuraya Kaadan (Nagoya University)*; Endo Mamoru (Nagoya University)
10:40-11:00	**COFFEE BREAK**
MAIN TRACK: Renewable (Green) Energy Systems and Sources (RESSs)	**SESSION CHAIR: Alireza Payman, João M.**
11:00-11:20	**ID: 390 A Cost/Worth Analysis Framework for Reliability Ehnacement of Multi-Microgrid Distribution Systems** Hossein Farzin (Shahid Chamran University of Ahvaz)*; Mehdi Monadi (Shahid Chamran University); Pedro Rodriguez (Loyola University Andalusia)
11:20-11:40	**ID: 91 Effective Series-Parallel Cell Configuration in Solar Panels for FPM Power Generation Forest** Yuki Mochizuki (Tokyo University of Science)*
11:40-12:00	**ID: 110 The behavior of Integral Backstepping Approach for MPPT in Different Cases of Solar Panel** SALOUA MARHRAOUI (mohammadia school of engineering)*
12:00-12:20	**ID: 51 An Experimental Verification for Improvement of Output Characteristics by LC Resonance in Vibration Generators with Boost-type Current-improving Passive Rectifier** Masataka Minami (Kobe City College of Technology)*; Tomoki Sakabe (Osaka University); Shin-ichi Motegi (Kobe City College of Technology); Masakazu Michihira (Kobe City College of Technology)
12:40-14:00	**LUNCH BREAK**
12:20-14:20	Poster Session-3

Date: 17 October 2018 - PM	HALL: Berlin
MAIN TRACK: Reliability and Maintenance in RESSs	**SESSION CHAIR: Atif Saeed, Miki Ueshima**
14:20-14:40	**ID: 115 Failure detection of solar panels using thermographic images captured by drone** Yuji HIGUCHI (NTT FACILITIES)*
14:40-15:00	**ID: 460 Multi-staged PID Controller Tuned by Invasive Weed Optimization Algorithm for LFC Issues** Nimai Charan Patel (Government College Of Engineering, Keonjhar,Odisha); Manoj Kumar Debnath (Siksha 'O' Anusandhan University); Binod Kumar Sahu (Siksha 'O' Anusandhan University, Bhubaneswar, Odisha.)*; Dr.S.S DASH (SRM UNIVERSITY); Ramazan Bayindir (Gazi University)
15:00-15:20	**ID: 123 Reliability comparison of a DC-DC converter placed in Building-Integrated Photovoltaic module frames** Wieland Van De Sande (UHasselt)*; Konstantinos Spiliotis (KULeuven); Juliana Gonçalves (KULeuven); Johan Driesen (KULeuven); Dirk Saelens (KULeuven); Michaël Daenen (UHasselt)
15:20-15:40	**ID: 290 Reliability Evaluation in Smart Grids via Modified Monte Carlo Simulation Method** Mohammed Wadi (İstanbul Sabahattin Zaim Üniversitesi)*; Mustafa BAYSAL (Yildiz Technical University); Abdulfetah Shobole (İstanbul Sabahattin Zaim Üniversitesi); Mehmet Rıda TUR (MARDİN ARTUKLU ÜNİVERSİTESİ)
15:40-16:00	**ID: 206 A Study on DC Microgrids Voltages based on Photovoltaic and Fuel Cell Power Generators** MOHD ALAM (IIT DELHI)*; Kuldeep Kumar (IIT DELHI); JAGENDRA SRIVASTAVA (IIT DELHI); VIRESH DUTTA (IIT DELHI)
16:00-16:20	**COFFEE BREAK**
16:20-18:00	Poster Session-4
MAIN TRACK: Renewable (Green) Energy Systems...	**SESSION CHAIR: Noriyuki Kimura, Abdulfetah**
16:20-16:40	**ID: 52 Energy Savings through Ammonia Based Absorption Chiller System: A proposed Strategy** Atif Saeed (SZABIST)*
16:40-17:00	**ID: 58 Improved Energy Storage Performance of Insulated Graphene/Polymer Nanocomposites.** Uwa Orji UO Uyor (Tshwane University of Technology)*; Patricia Popoola (Tshwane University of Technology); Olawale Popoola (Tshwane University of Technology)
17:00-17:20	**ID: 64 Performance Improvement of Liquid-type Solar Collector System** Youngjin Choi (Kyushu University)*
17:20-17:40	**ID: 171 Biomass Free Piston Starling Engine Generator with PV** ayumu mabe (Shibaura Institute of Technology); Hiroshi Takami (Shibaura Institute of Technology)*; Fuminori Ishibashi (Shibaura Institute of Technology)
17:40-18:00	**ID: 85 Improving Energy Self-Consumption Rate in Renewable Energy System** Miki Ueshima (NTT FACILITIES,INC.)*
18:00-18:30	**CLOSING CEREMONY (HALL: BERLIN)**

Date: 17 October 2018 - AM	HALL: Athenes
MAIN TRACK: Renewable (Green) Energy Systems...	**SESSION CHAIR: Uwa Orji Uo Uyor, Youngjin**
09:00-09:20	**ID: 320 Basic Study for Model Construction of The Water Recovery System in Polymer Electrolyte Fuel Cells** Sota Fujinuma (Tokyo university of science)*; Saori Ashida (Tokyo University of Science); Nobukazu Hoshi (Tokyo University of Science)
09:20-09:40	**ID: 138 Optimal Scheduling of an Isolated Wind-Diesel-Battery System considering Forecast Error and Primary Frequency Response** Hong Nhung Nguyen (Waseda University)*; Yosuke NAKANISHI (Waseda University)
09:40-10:00	**ID: 275 Experiment of voltage response during mode switching in a unitized regenerative fuel cell with parallel flow field** Xian Ming YUAN (Beijing University of Technology)*
10:00-10:20	**ID: 282 Mass Transfer and Power Loss of Proton Exchange Membrane Fuel Cells with Blocked Flow Channels** Hao Chen (Beijing university of technology)*
10:20-10:40	**ID: 305 Application of Solid-state Transformer for HVDC Transmission from Offshore Windfarm** Noriyuki Kimura (Osaka Institute of Technology)*; Toshimitsu Morizane (Osaka Institute of Technology); Isao Iyoda (Osaka Electro-Communication University); Kazushige Nakao (Fukui University of Technology); Tomoki Yokoyama (Tokyo Denki University)
10:40-11:00	**COFFEE BREAK**
MAIN TRACK: Renewable (Green) Energy Systems…	**SESSION CHAIR: Xian Ming YUAN, J. Birgitta**
11:00-11:20	**ID: 191 Consideration on Voltage Fluctuation caused by Active Method of Islanding Detection of Photovoltaic Generation** Kenta Takeshita (sophia university)*; Orie Sakamoto (Sophia university); Masato Maruyama (Sophia university)
11:20-11:40	**ID: 363 A New System-Level Model for the Fuel Cell in a Strategic Context** Gomer Abel Rubio (ESPOL)*
11:40-12:00	**ID: 319 New Coupled Model for Prediction of the Temperature Distribution in a PV Cell with a Hot Spot Induced by Partial Shading** Takayuki Yamamoto (National Institute of Technology, Ube College) *; Daisuke Wagi (Former National Institute of Technology, Ube College); Ikuo Nanno (National Institute of Technology, Ube College)
12:00-12:20	**ID: 223 Some aspects of recycling concrete crush for thermal heat storage** J. Birgitta Martinkauppi (University of Vaasa)*; Tapio Syrjälä (University of Vaasa); Anne M[illegible]kiranta (University of Vaasa); Erkki Hiltunen (University of Vaasa)
12:40-14:00	**LUNCH BREAK**
12:20-14:20	Poster Session-3

Date: 17 October 2018 - PM	HALL: Athenes
MAIN TRACK: Renewable (Green) Energy Systems….	**SESSION CHAIR: Kenta Takeshitai, Hao Chen**
14:20-14:40	**ID: 399 Mismatch Loss Analysis of PV Arrays Under Partial Shading Conditions** Balaji Veerasamy (Jimma Institute of Technology)*; Takaharu Takeshita (Nagoya Institute of Technology); Aberra Jote (JIT, Jimma University); Tefera Mekonnen (JIT, Jimma University)
14:40-15:00	**ID: 261 IoT-based system to monitor and control household lighting and appliance power consumption and water demand** Jose M Gutirerrez-Villalobos (Autonomous University of Queretaro)*; Meliza Bautista-Villalon (Autonomous University of Queretaro); Edgar Rivas-Araiza (Autonomous University of Queretaro)
15:00-15:20	**ID: 421 Solar PV Energy System Based on Series Interleaved Three-Level Boost Converter and Five-Level MLC2 Inverter** Maria D. Bellar (State University of Rio de Janeiro - UERJ)*; Rodrigo Florencio (Department of Underwater Acoustics, Research Institute of Brazilian Navy (IEAPM)); Luís Fernando Monteiro (State University of Rio de Janeiro - UERJ); Aluisio Bento (State University of Rio de Janeiro - UERJ)
15:20-15:40	**ID: 400 Experimental Discussion on Duty Ratio Obtaining Higher Efficiency for Cascaded Three-stage Boost Converter for Fuel Cells** Takahashi Kou (Tokyo University of Science)*; Nobukazu Hoshi (Tokyo University of Science)
15:40-16:00	**ID: 451 Characterization and electric behavior modeling of Lithium-battery using temporal approach for parameters computing** Kosseila BELLACHE (univ)*; Mamadou B Camara (University Le Havre); brayima DAKYO (Universit Le Havre)
16:00-16:20	**COFFEE BREAK**
16:20-18:00	Poster Session-4
TRACK 6: Microgrids Design, Optimization, ... SESSION CHAIRS: Manuela SECHILARIU, Mamadou Baïlo CAMARA, S. S. DASH	
16:20-16:40	**ID: 378 Smart AC Storage based on Microbial Electrosynthesis Stack** Mahdi Shahparasti (Universitat Politecncia de Catalunya)*; Joan Rocabert (Universitat Politècnica de Catalunya (UPC) · BarcelonaTech); Raúl Santiago Muñoz Aguilar (Universitat Politècnica de Catalunya (UPC) · BarcelonaTech); Alvaro Luna (Universitat Politecncia de Catalunya); Pedro Rodriguez Cortes (Loyola University Andalucia)
16:40-17:00	**ID: 76 Augmentation of Self-Consumption of Electricity by Using Boilers and Batteries for Residential Buildings** Andres Annuk (Estonian University of Life Sciences); Andres Annuk (Estonian University of Life Sciences)*; Heiki Lill (Estonian University of Life Sciences); Janar Kalder (Estonian University of Life Sciences); Heino Pihlap (Estonian University of Life Sciences); Algirdas Jasinskas (Aleksandras Stulginskis University); Mihkel Härm (Eesti Energia AS); Sergei Trashchenkov (Pskov State University); Alo Allik (Estonian University of Life Sciences); erkki.jogi@emu.ee Jõgi (Estonian University of Life Sciences); Janar Kalde (Estonian University of Life Sciences)
17:00-17:20	**ID: 210 Cost Savings Oriented Microgrid Control Strategy Considering Battery Degradation** RAM SHANKAR YALLAMILLI (ABB INDIA LIMITED)*
17:20-17:40	**ID: 302 Wind turbine and Batteries with Variable speed diesel generator for Micro-grid Applications** Lawan I Mai Moussa Gaptia (University Le Havre)*; Jacques Raharijaona (University of Le Havre); Mamadou B Camara (University Le Havre); brayima DAKYO (Universit Le Havre)
17:40-18:00	**ID: 337 Energy Management in Electric Vehicle based on Frequency sharing approach, using Fuel cells, Lithium batteries and Supercapacitors** Ismail Oukkacha (GREAH Laboratory, University of Le Havre)*; Mamadou B Camara (University Le Havre); Brayima DAKYO ("UNIVERSITY OF LE HAVRE, FRANCE")
18:00-18:30	**CLOSING CEREMONY (HALL: BERLIN)**

Date: 17 October 2018 - AM	HALL: Madrid
TRACK 6: Microgrids Design, Optimization, ...	**SESSION CHAIRS: Manuela SECHILARIU, Mamadou Baïlo CAMARA, S. S. DASH**
09:00-09:20	**ID: 101 Minimization of EMF Harmonics and Cogging Torque for a Medium Speed RFPM Wind Turbine Generator** Aysel Akgemci (Middle East Technical University)*; Ozan Keysan (Middle East Technical University); Reza Zeinali (Eindhoven University of Technology)
09:20-09:40	**ID: 428 Impacts of supercapacitors on battery lifetime in hybrid energy storage system on DC microgrid in building integrated photovoltaic** Margot M Gaetani-Liseo (LAAS-CNRS)*; Corinne Alonso (LAAS); Bruno Jammes (LAAS-CNRS Université Paul Sabatier)
09:40-10:00	**ID: 78 Seasonal air density variations over the East of Scotland and the consequences for offshore wind energy** Alain Ulazia (UPV/EHU)*; Gabriel Ibarra (UPV/EHU)
10:00-10:20	**ID: 379 Control Strategies Design for a Small-Scale Wind Turbine with a Doubly Fed Induction Generator** Mohamed Omran ASHGLAF (University of Le Havre)*; Cristian Nichita (University of Le Havre)
10:20-10:40	**ID: 338 Modeling of the parabolic trough solar field with molten salt for the region of Tozeur in Tunisia** Asma Messadi (ENIM)*; Youssef Timoumi (ENIM)
10:40-11:00	**COFFEE BREAK**
MAIN TRACK: Renewable (Green) Energy Systems and Sources (RESSs)	**SESSION CHAIR: Andres Annuk, Aysel Akgemci**
11:00-11:20	**ID: 364 Control of isolated DC/DC resonant converters for energy sharing between battery and supercapacitors** MOUNCIF ARAZI (GREAH, University of Le Havre)*; Alireza Payman (University Le Havre); Mamadou B Camara (University Le Havre); Brayima DAKYO ("UNIVERSITY OF LE HAVRE, FRANCE")
11:20-11:40	**ID: 391 RSM Based Modelling for Mineral and Organic Acid Pretreatment of Coconut Pith using High Pressure Batch Reactor (HPBR)** Marttin Paulraj Gundupalli (Indian Institute of Technology Hyderabad)*; Debraj Bhattacharyya (IIT Hyderabad)
11:40-12:00	**ID: 368 Adaptive Neuro-Fuzzy Inference System application for the identification of a photovoltaic system and the forecasting of its maximum power point** alphousseyni ndiaye (université alioune diop de bambey)*
12:00-12:20	**ID: 433 Grid synchronization and injection control of HRES power generation** Arkhangelski Jura (University of Paris Est Creteil, Certes Lab.)*; Pedro Roncero (University of Castilla-La Mancha); Abdou Tankari Mahamadou (University of Paris Est Creteil, Certes Lab.); Lefebvre Gilles (University of Paris Est Creteil, Certes Lab.); Molina-Martínez Emilio J. (University of Castilla-La Mancha)
12:40-14:00	**LUNCH BREAK**
12:20-14:20	Poster Session-3

Date: 17 October 2018 - PM	HALL: Madrid
TRACK 2: Public Awareness and Education for Renewable Energy and Systems	**SESSION CHAIR: Halil Ibrahim BULBUL**
14:20-14:40	**ID: 33 Enhancement of Efficiency through Optimization of Carbon Steel flywheel** Atif Saeed (SZABIST)*
14:40-15:00	**ID: 256 THERMODYNAMIC OPTIMIZATION OF A NOVEL SOLAR POWER COGENERATION PLANT USING A GAS EJECTOR.** Larbi Afif (University of Tunis El Manar), Nahla Bouaziz (University of Tunis El Manar)*; Ramazan Bayindir (Gazi University); Ilhami Colak (Nisantasi University)
15:00-15:20	**ID: 466 Social Acceptance of Microgrids Dedicated to Electric Vehicle Charging Stations** Manuela Sechilariu (UTC/AVENUES)*; Fabrice Locment (UTC/AVENUES); Nathalie Darene (UTC/COSTECH)
15:20-15:40	**ID: 355 Monitoring system of the main electric power generation plants using telecommunications networks in Ecuador** Daniel O Icaza (Catholic University of Cuenca, Cuenca, Ecuador)*; Santiago Pulla (Catholic University of Cuenca, Cuenca, Ecuador); Sergio Mestas (Universidad Católica de Santa Maria)
15:40-16:00	**ID: 437 Smart and resilient City and IoT towards Urban Sustainability of Africa** Mariacristina Roscia ("University of Bergamo, Italy")*
16:00-16:20	**COFFEE BREAK**
16:20-18:00	Poster Session-4
Date: 17 October 2018 - PM	**HALL: Madrid**
TRACK 7:Mechanical Engineering Applications in Renewable Energy	**SESSION CHAIRS: Yoshitaka NAKANISHI**
16:20-16:40	**ID: 196 Development of heterologous cell co-culture technique for application to bioreactor** Yuta NAKASHIMA (Kumamoto University)*; Takaya Hisamoto (Kumamoto Univresity); Koki Yamasaki (Kumamoto University); Yoshitaka NAKANISHI (Kumamoto University)
16:40-17:00	**ID: 61 Biomimetic Shaft Seal for Ocean Current or Tidal Power Generation** Yoshitaka NAKANISHI (Kumamoto University)*; Yuki Yoshioka (Kumamoto University); Takuro Honda (Kumamoto University); Yuta NAKASHIMA (Kumamoto University)
17:00-17:20	**ID: 80 Enhancement of Heat Transfer in Subcooled Pool Boiling by Nano-textured Surface** EL Ghassem KNEITA (Kumamoto university)*; Takuro Honda (Kumamoto University); Keiji Kasamura (Kumamoto University); Yuta NAKASHIMA (Kumamoto University); Yasushi KOITO (Kumamoto university); Yoshitaka NAKANISHI (Kumamoto University)
17:20-17:40	**ID: 75 Study on rotor side plate for PHV motor by plastic flow joining** akiyama tetsuya (AKIYAMA MFG. CO., LTD)*; Yoshitaka NAKANISHI (Kumamoto University)
17:40-18:00	**ID: 467 Comparative Study between CSP and CPV as Two Energy Systems** Abdelkader Harrouz (University of Draïa); Ilyas Daouali (Draïa University); Korhan KAYISLI (Nisantasi University)*; Halil Ibrahim BULBUL (Gazi University); Ilhami Colak (Nisantasi University)
18:00-18:30	**CLOSING CEREMONY (HALL: BERLIN)**

POSTER SESSION-3 (17 October 2018 WEDNESDAY, 12:20-16:00) HALL: Lisbonne	
TRACK	**SESSION CHAIRS: Mehdi Bagheri, Hadj Dida Abdelkader, Mohammed Wadi**

ID: 419 Qualitative Model of Control in the Pressure Stabilization of PEM Fuel Cell
wilton edixon Agila (ESPOL)*

ID: 166 Prospects of off grid energy generation through Low head screw turbine in Nepal
Rabin Dhakal (Tribhuvan University, Institute of Engineering, Kantipur Engineering College)*; Raj Kumar Shrestha (Vortex Energy Solution Pvt. Ltd); S. C. Itani (Department of Electronics and Communication); Ganesh Babu Amgain (Vortex Energy Solution Pvt. Ltd); Suresh Bhandari (Alternative Energy Promotion Center); Sirjana Dhakal (Vortex Energy Solution Pvt. Ltd); Yubaraj Dhakal (Vortex Energy Solution Pvt. Ltd); Niwesh Koirala (Kantipur International college); Gajendra Dev (ACME Engineering College, Purbanchal University, Nepal); Smita Bhatta (Vortex Energy Solution Pvt. Ltd.)

ID: 474 Design of an Intelligent Peak Power Converter for Solar Plants with Lead–acid Battery
Abdelhakim Belkaid (Bordj Bou Arreridj University)*; Ilhami Colak (Nisantasi University); Korhan KAYISLI (Nisantasi University); Ramazan Bayindir (Gazi University)

ID: 432 Optimal sizing and location of the power plant in multi-villages microgrid
Abdou Tankari Mahamadou (University of Paris Est Creteil, Certes Lab.); Lefebvre Gilles (University of Paris Est Creteil, Certes Lab.); Amadou Seidou Maiga (University of Gaston Berger); Nouhou Bako Zeinabou (University of Maradi)*

ID: 430 Methodology for Analyzing of a Grid Weakness and Resiliency Factors – case of Niger National Grid
Abdou Tankari Mahamadou (University of Paris Est Creteil, Certes Lab.); Lefebvre Gilles (University of Paris Est Creteil, Certes Lab.); Garba Marou (CERTES Laboratory, University of Paris-Est Creteil)*

ID: 481 Virtual Impedance Impact on Inverter Control Topologies
Ahmad Elkhateb (Queens University Belfast)*; Walid Issa (Sheffield Hallam University)

ID: 16 Steps towards sustainablity: Energy generating seesaw
Atif Saeed (SZABIST)*

ID: 18 Steps toward sustainablity: Energy through flywheels
Atif Saeed (SZABIST)*

ID: 182 Study on the combustion characteristics and kinetics of biomass and coal char blended fuels
Jingfu WANG (Beijing University of Technology)*

ID: 7 Theory and simulation of a neuro-fuzzy controller for 20MW steam turbo generator control
Babacar KEBE (Ecole Supérieure Polytechnique de Dakar)*; Lamine Thiaw (Ecole Supérieure Polytechnique de Dakar); Oumar Ba (Ecole Supérieure Polytechnique de Dakar)

ID: 278 Novel method for the identification of defective anemometers in wind farms
Alain Ulazia (UPV/EHU)*

ID: 299 Virtual Oscillator Controller Optimisation Using Low Bandwidth Communication
Cameron Wong (The University of Newcastle)*

ID: 311 Novel Control Method for An SRM Driven by Asymmetric Flying Capacitor Multilevel H-bridge Inverter
Noriyoshi Yamada (Tokyo University of Science)*; Nobukazu Hoshi (Tokyo University of Science)

ID: 435 Advanced batteries and reduction of CO2 emissions in Hybrid Ships
Cesar O Peralta (University of Sao Paulo); Rodrigo J Vale (University of São Paulo); Giovani Giulio T. T. Vieira (University of Sao Paulo); Mauricio B C Salles (University of Sao Paulo)*; Bruno Carmo (University of Sao Paulo)

POSTER SESSION-4 (17 October 2018 WEDNESDAY, 16:20-18:00) HALL: Lisbonne	
TRACK	**SESSION CHAIRS: Rabin Dhakal, Abdou Tankari Mahamadou, Mehmet Rida Tür**

ID 487 Designing national R&D planning framework in Korean government: Focusing on Smart Grid
Sanggook Kim (Korea Institute of Science and Technology Information)*; Woondong Yeo (Korea Institute of Science and Technology Information); Dongkyu Won (Korea Institute of Science and Technology Information); Hyuk Hahn (Korea Institute of Science and Technology Information); Bangrae Lee (Korea Institute of Science and Technology Information); Jungsun Lim (Korea Institute of Science and Technology Information); Kwanghoon Kim (Korea Institute of Science and Technology Information)

ID: 322 Influence of Mutual Inductance Measurement for High Efficiency Wireless Power Transmission
Assyfa B. Ariffin (Tokai University)*; Mamiko Inamori (Tokai University)

ID: 323 A Study on Transient Behavior of Off-gas Impurity Concentration from Metal Hydride
Saori Ashida (Tokyo University of Science)*; Noboru Katayama (Tokyo University of Science); Kiyoshi Dowaki (Tokyo University of Science); Mitsuo Kameyama (Japan Blue Energy Co., Ltd.)

ID: 346 Support Vector Machine and Neural Network Applications in Transient Stability
Nicholas Gregory Baltas (Loyola Universidad Andalucia)*; Peyman Mazidi (Loyola Andalucia University); Pedro Rodriguez (Loyola University Andalusia); Francisco Fernandez (Loyola Universidad Andalucia)

ID: 360 A New strategy based Neural Networks MPPT controller for Five-phase PMSG based Variable-Speed Wind Turbine
Salah Eddine RHAILI (Mohammed V University in Rabat, Mohammadia school of engineering, Department of Electrical Engineering)*; Ahmed ABBOU (Electric Engineering Department, The Mohammadia School's of Engineers Mohammed V University Agdal Rabat); SALOUA MARHRAOUI (mohammadia school of engineering); Nezha EL HICHAMI (Mohammadia School of Engineers (EMI), Mohammed V University in Rabat, MOROCCO)

ID: 372 Renewable Energy System for Small Water Desalination Plant
Maria D. Bellar (State University of Rio de Janeiro - UERJ)*; Rodrigo Vieira (Chemtech – A Siemens Business); José Paulo Cunha (State University of Rio de Janeiro - UERJ); Tiago Oliveira (State University of Rio de Janeiro - UERJ); Aluisio Bento (State University of Rio de Janeiro - UERJ)

ID: 387 Can we trust solar resource maps and "HOMER Pro" for the design of solar microgrids?
Fabien Chidanand Robert (Amrita Vishwa Vidyapeetham)*; Sundararaman Gopalan (Amrita Vishwavidyapeetham)

ID: 388 Water and energy management based on fuzzy logic and linear programming for a photovoltaic/wind/battery pumping system in rural environment
Oumar CISSE (Ecole Supérieure Polytechnique/Université Cheikh Anta Diop)*

ID: 394 T-type NPC Inverter with Active Power Decoupling Method using Discontinuous Current Mode for Micro-Inverter
Akiyoshi Omomo (Nagaoka University of Technology)*; Jun-ichi Itoh (Nagaoka University of Tec.); Keisuke Kusaka (Nagaoka University of Technology)

ID: 347 Particle swarm optimization of a non-linear kalman filter for sensorles control of Induction motors
Marouane RAYYAM (Dept. of Electrical Engineering, ENSET Mohammed V University in Rabat, Rabat)*

ID: 111 Evaluation of power generation performance using only the nameplate value using linear interpolation method
Kanako Kawasaki (Tokyo University of Science)*

ID: 213 Efficiency Improvement of Isolated Bidirectional Boost Full Bridge DC-DC Converter
Satoshi Ikeda (Panasonic)*; Kazuhiro Kajiwara (Nagasaki Institute of Applied Science); Kazuki Tsuji (Nagasaki Institute of Applied Science); Fujio Kurokawa (Nagasaki Institute of Applied Science)

ID: 47 Optimization of electrode thickness of flexible supercapacitors using activated carbon derived from shochu waste
Takuya Eguchi (Fukuoka Institute of Technology)*; Daisuke Tashima (Fukuoka Institute of Technology); Masumi Fukuma (National Institute of Technology, Matsue College); Seiji Kumagai (Akita University)

ID: 250 Field Oriented Vector Control of an Induction Motor fed by Multi-junction Solar Cells
HADJ DIDA ABDELKADER (ALGERIAN SPACE AGENCY - CENTER FOR SATELLITE DEVELOPMENT ASAL-CDS)*

ID: 516 Algorithmic Approach for the Slot Filling Factors Determination in Electrical Machines
Rosario Miceli (University of Palermo)*; Massimo Caruso (University of Palermo); Antonino Oscar Di Tommaso (University of Palermo); Claudio Nevoloso (University of Palermo)

Presentation Instruction for ICRERA Presenters

Oral presentation

Presentation time is 15 min. Question/Discussion is 5 min. Organizer will prepare Windows OS desktop computer with MS Office Standart 2010 in each room. Presenters can also bring their own laptop. PPT files should be uploaded to desktop computer during recess before the session. Presenter should meet session chair(s) during recess before the presentation and pass a brief bio or business card to session chair(s).

Poster presentation

Size of poster is 70*100 mm. Use the sheet of poster with the shorter side at the top. In recess before the session, presenter must meet session chair. Fail of meeting with session chair may be regarded as "No show". Poster must be removed when the session is finished.

Note that oral and poster presentations of ICRERA have same value. Both of them are included in candidates for Best Paper Award.

Internet:

Wireless Internet access will be available in conference saloons and halls.

General Information

Venue:

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Welcome Reception (October 14, 2018 Hours: 18:00-19:30)

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Gala Dinner (October 17, 2018 Hours: 19:30-21:30)

La Coupole

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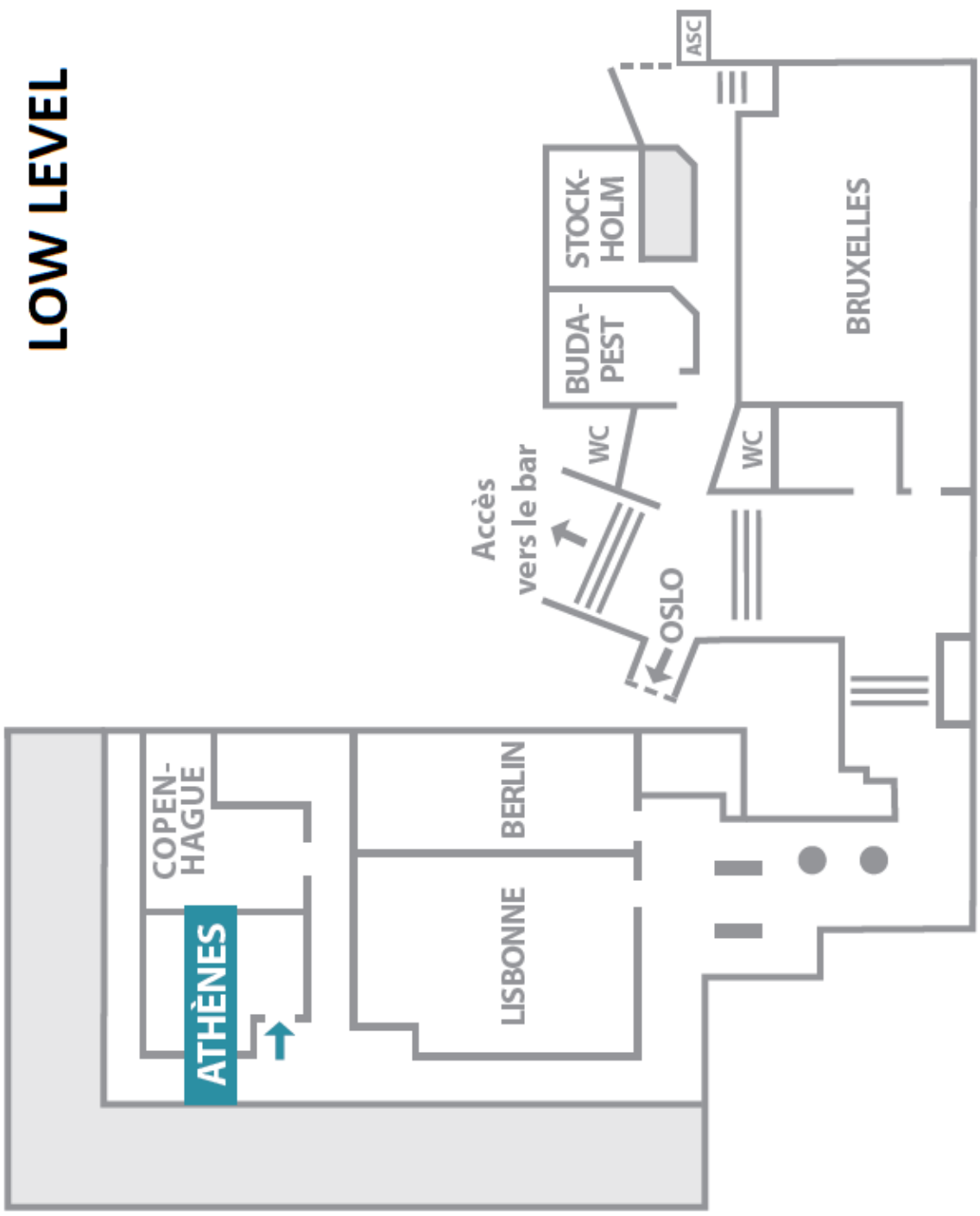
All quests will go to Gala Dinner restaurant by themselves

Venue Plan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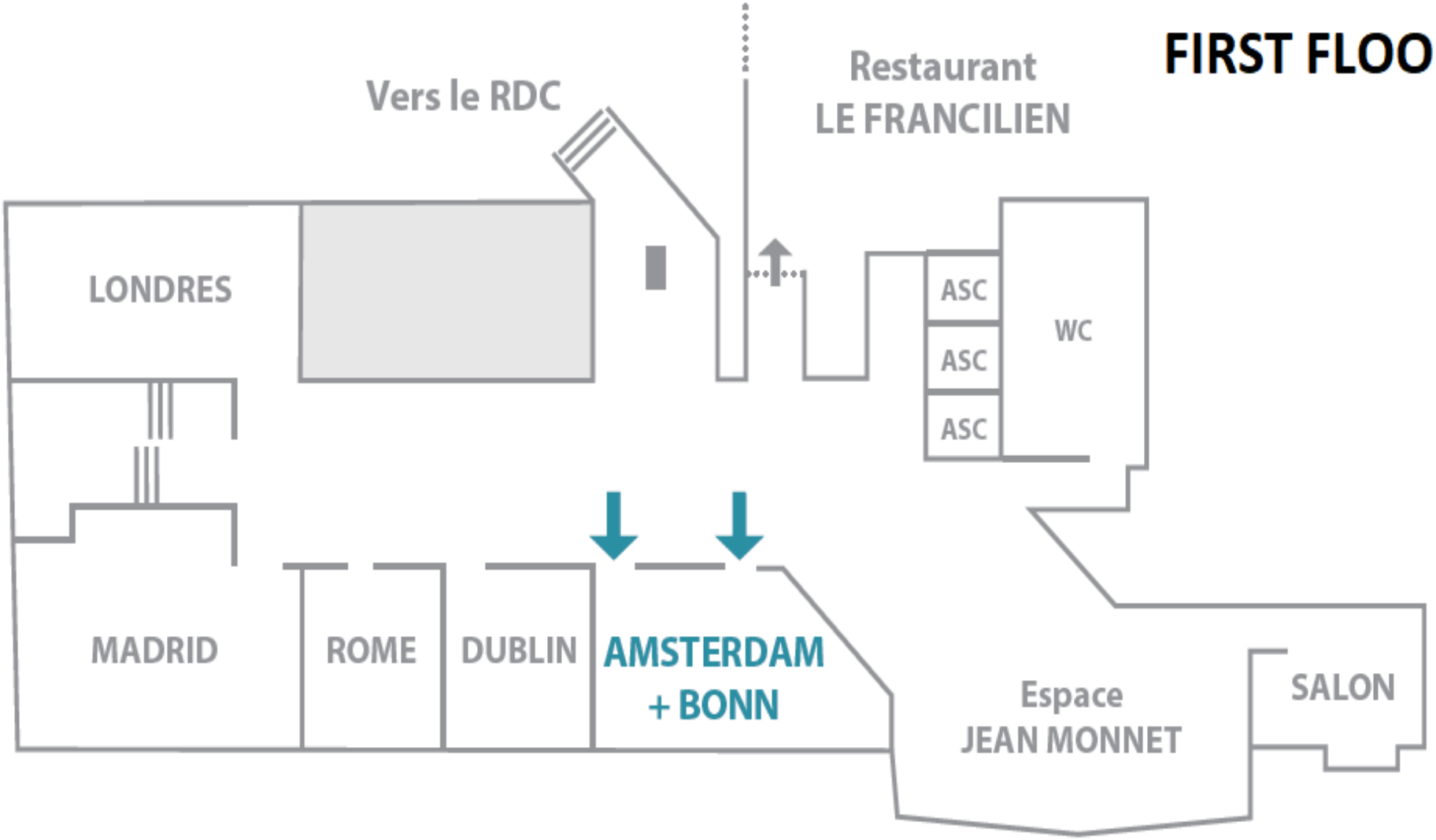
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