ICREPQ'12 PROVISIONAL SCHEDULE

Tuesday March 27, 2012	
17:00 – 19:00	**Registration "ICREPQ'12 Secretariat"**

Wednesday March 28, 2012								
9:00 – 12:30	**Registration "ICREPQ'12 Secretariat"**							
10:00 – 10:45	**Opening Ceremony ROOM A "ABB"**							
10:45 - 11:30	**PL1**	**Carlos de Palacio**, ABB Power Systems: "***Solutions for Systems with hight Penetration of Renewable Energy: Stabilization, Grid Integration and Contingency***"						
	EXTRA TIME FOR DISCUSSION							
11:30 – 12:15	**Posters Session at ROOM C "CIRCUTOR" (Session C1) Coffee Break**	*Poster Session **C1***						
		210	212	218	230	233	239	
		240	245	246	247	250	251	
		253	255	258	261	265	267	
		268	271	276	277	283	287	
		288	289	291	293	295	307	
		330	331	339	345	351	372	
		375	378	397	410	411	432	
		440	441	453	458	468	471	
		482	483	545	569	676	710	
		825	850					
12:15 – 13:00	**ROOM A "ABB"**							
	PL2	**Jian Sun**, Prof. of NY State Center for Future Energy Systems, ***"Power Quality in Renewable Energy Systems – Challenges and Opportunities"***						
13:00 – 15:00	**Welcome Lunch**							
15:00 – 16:30	**ROOM A "ABB"**			**ROOM B "U. de Santiago"**				
	*Oral Session **A1***			*Oral Session **B1***				
	225	228	234	200	296	342		
	241	709	865	390	396	781		
	EXTRA TIME FOR DISCUSSION							
16:30 – 17:15	**Poster Session at ROOM C "CIRCUTOR" (Session C2) Coffee Break**	*Poster Session **C2***						
		298	299	300	301	303	305	
		308	311	314	315	318	320	
		324	329	335	336	338	346	
		349	355	356	364	367	368	
		370	377	382	383	384	385	
		388	392	394	400	414	417	
		420	423	428	434	439	448	
		456	459	460	465	468	471	
		476	479	480	481	498	783	
		834	835					
17:15 – 19:00	**ROOM A "ABB"**				**ROOM B "U. de Santiago"**			
	*Oral Session **A2***				*Oral Session **B2***			
	260	274	290	310	280	285	292	334
	353	757	811		449	625	820	
	EXTRA TIME FOR DISCUSSION							
19:30	**Welcome Civic Reception**							

Thursday March 29, 2012

9:00 – 12:30 — Registration "ICREPQ'12 Secretariat"

ROOM A "ABB"

9:00 – 9:45 — **PL3** **Fernando Nuño**, Project Manager for Electricity and Energy, European Copper Institute
"***Copper Rotor Technology for Electrica and Hybrid Vehicles***"

9:45 – 10:30 — **PL4** **Noor E. Alam Ahmed**, Prof. of the University of New South Wales, Australia, "***Novel Development towars Efficient and Cost Effective Wind Energy Generation and Utilization fo Sustainable Environment***"

EXTRA TIME FOR DISCUSSION

10:30– 11:15 — **Poster Session at ROOM C "CIRCUTOR" (Session C3) Coffee Break**

*Poster Session **C3***

415	421	494	495	498	500
503	504	505	508	509	510
512	515	517	519	521	523
528	530	532	538	542	543
553	554	556	557	559	564
571	574	578	580	588	589
590	593	594	603	609	610
619	663	686	698	701	703
742	819	828	863	867	868

11:15 – 13:00

ROOM A"ABB"				**ROOM B "U. de Santiago"**			
*Oral Session **A3***				*Oral Session **B3***			
361	362	393	407	317	484	487	615
450	514	722		683	759	841	

EXTRA TIME FOR DISCUSSION

13:00 – 15:00 — **Lunch**

15:00 – 16:30

ROOM A"ABB"			**ROOM B "U. de Santiago"**		
*Oral Session **A4***			*Oral Session **B4***		
533	565	566	327	461	525
597	680	764	546	573	705

EXTRA TIME FOR DISCUSSION

16:30 - 17:15 — **Poster Session at ROOM C "CIRCUTOR" (Session C4) Coffee Break**

*Poster Session **C4***

286	437	600	611	612	614
617	621	623	626	629	634
637	638	644	649	651	654
659	660	664	671	672	675
678	679	682	692	696	697
713	715	716	719	723	724
727	728	729	733	735	738
739	740	741	743	746	747
749	750	751	752	753	762
765					

17:15 - 19:00

ROOM A" ABB"				**ROOM B *"U. de Santiago"***			
*Oral Session **A5***				*Oral Session **B5***			
408	469	667	673	547	567	569	695
688	699	780		702	773	803	

EXTRA TIME FOR DISCUSSION

19:30 — **Conference Dinner** (Optional)
Parador "Hostal dos Reis Catolicos"

<table>
<tr><th colspan="8">Friday March 30, 2012</th></tr>
<tr><td>9:00 – 12:30</td><td colspan="7">Registration
"ICREPQ'12 Secretariat"</td></tr>
<tr><td></td><td colspan="7">ROOM A "ABB"
Plenary Sessions PL5</td></tr>
<tr><td rowspan="2">9:00-9:45</td><td colspan="7">PL 5 Subhransu Sekhar Dash, Prof. SRM Engineering College, India, "Perfomance Analysis of Multilevel Inverters Using Variable Switching Frequency Carrier Based PWT Techniques"</td></tr>
<tr><td colspan="7">EXTRA TIME FOR DISCUSSION</td></tr>
<tr><td rowspan="10">9:45 – 10:30</td><td rowspan="10">Poster Session at ROOM C "CIRCUTOR" (Session C5) Coffee Break</td><td colspan="6">Poster Session C5</td></tr>
<tr><td>215</td><td>220</td><td></td><td>322</td><td>326</td><td>374</td></tr>
<tr><td>537</td><td>549</td><td>604</td><td>607</td><td>768</td><td>769</td></tr>
<tr><td>775</td><td>776</td><td>786</td><td>787</td><td>788</td><td>789</td></tr>
<tr><td>791</td><td>792</td><td>793</td><td>799</td><td>802</td><td>804</td></tr>
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<tr><td>854</td><td>856</td><td>858</td><td>860</td><td>861</td><td>870</td></tr>
<tr><td rowspan="4">10:30 – 12:15</td><td colspan="4">ROOM A "ABB"</td><td colspan="4">ROOM B "U. de Santiago"</td></tr>
<tr><td colspan="4">Oral Session A6</td><td colspan="4">Oral Session B6</td></tr>
<tr><td>243</td><td>256</td><td>433</td><td>704</td><td>272</td><td>312</td><td>439</td><td>591</td></tr>
<tr><td>712</td><td>714</td><td>720</td><td></td><td>718</td><td>770</td><td>771</td><td></td></tr>
<tr><td colspan="8">EXTRA TIME FOR DISCUSSION</td></tr>
<tr><td rowspan="2">12:15– 13:00</td><td colspan="7">ROOM A ""</td></tr>
<tr><td colspan="7">CLOSING SESSION
Conclusions and time for the next conference (ICREPQ'13)
Awards for the three best posters</td></tr>
<tr><td>13:00 – 15:00</td><td colspan="7">Farewell Lunch</td></tr>
<tr><td>15:00</td><td colspan="7">Excursion for to visit the Cathedral and other interesting places of Santiago de Compostela</td></tr>
</table>

Room A: ABB
Room B: Universidad de Santiago
Room C: CIRCUTOR

VERY IMPORTANT

Number in red colour. Please formalize your registration (Registration Form+Payment). Please check it with your bank and send us your bank transfer receipt or pay by credit card using the Agreement of Payment Form.

AUTHORS

Oral Presentations

Each speaker of an oral presentation has an available time of 15 minutes (12 minutes for the presentation and 3 minutes for questions) and must be in the session room 10 minutes before of the beginning of the session for to test the audiovisual equipment and for to exchange opinions with the Session Chairman. We suggest that the speakers of one oral presentation prepare their material in Power Point 2003.

Poster Presentations

The posters must be numbered, on the up left corner, with the number of the paper and it will be put, about 15 minutes before of the beginning of the session, on the pin board that you previously can chose and it must be take off 15 minutes after of the end of the session. The author(s) must be stay near the poster during the 45 minutes of the session duration for to answer all the questions that the audience or the chairmen could formulate. The maximum available surface for each poster will be **1200 mm x 1800 mm** (width x high). You must select your poster size take into account this maximum available surface (Perhaps an A0 size, **841×1189** mm (width x high), could be apropriate). Put on the pin board separated sheets of the paper are not allowed.

SESSION CHAIRMEN

On behalf of the International Program Committee, Steering Committee and the Organising Committee of the ICREPQ'12 and take into account their eminent position in the world of science we have selected 42 session chairmen. It is an honour for us their collaboration for to chair the sessions of ICREPQ'12 and their contribution would be greatly appreciated. We wish to express our warmest thanks.

Traditionally the Chairmen of each Session are independent in organising the Session. Nevertheless it is of special importance that the different session chairmen prepare some questions about the papers of their session in order to get a more dynamic one. Furthermore we expect of the session chairmen the following:

Plenary sessions

Each plenary session should not exceed **45 minutes** including presentation and discussion, (40 minutes for presentation and 5 minutes for questions).

Oral sessions

Each oral paper presentation should not exceed 15 minutes including presentation and discussion, (12 minutes for presentation and 3 minutes for questions).

Poster sessions

The author(s) of a poster presentation must be stay near the poster during the 45 minutes of the session duration and in order to get a more dynamic session it is important that along this period of time each of the chairmen of the poster sessions formulate questions to the authors and check that all is OK. The chairmen also file up a sheet with puntuactions for each presented poster and then take into account these evaluations the Organizers will deliver during the Closing Session a present to the three best posters.

Chairmen Session distribution

Wednesday 28th March, 2012		
10:45-11:30	**PLENARY SESSION PL1**	Gevrok B. Gharehpetian
11:30-12:15	**POSTER SESSION C1**	José Antonio Güemes
		Josef Tlusty
		Sergio A.Oliveira da Silva
		João C. Oliveira Matias
		Liliana Tenti
12:15-13:00	**PLENARY SESSION PL2**	Gianpaolo Vitale
15:00-16:30	**ORAL SESSION A1**	Wolfang Bauer
	ORAL SESSION B1	Roberto Cesar Betini
16:30-17:15	**POSTER SESSION C2**	Vlatko Stoilkov
		Antonio Pina Martins
		Silvano Vergura
		Thiago Mota Soares
		Tomas Yebra Vega
17:15-18:45	**ORAL SESSION A2**	Sieniutycz Stanislaw
	ORAL SESSION B2	Gorazd Stumberger
Thusday 29th March, 2012		
9:15-10:00	**PLENARY SESSION PL3**	Carlos Redondo Gil
10:00-10:45	**PLENARY SESSION PL4**	Inmaculada Zamora Belver
10:45-11:30	**POSTER SESSION C3**	Ramsey Saunders
		Sergio M. Redondo Faias
		José Roberto Camacho
		Mohamed El Sayed
		Byung-Moon Han
11:30-13:00	**ORAL SESSION A3**	Aurelian Craciunescu
	ORAL SESSION B3	Mircea Ion Buzdugan
15:00-16:30	**ORAL SESSION A4**	Janis Kalnacs
	ORAL SESSION B4	Pere Andrada Gascon
16:30-17:15	**POSTER SESSION C4**	Vicente Teixeira Leite
		Janus Mroczka
		Pavel Kulha
		Motoo Ishikawa
		Francisco Klever de Araujo
17:15-18:45	**ORAL SESSION A5**	Berthold Bitzer
	ORAL SESSION B5	Ji-An Wang
Friday 30th March, 2012		
9:15-10:00	**PLENARY SESSION PL5**	Péter Kádár
10:00-10:45	**POSTER SESSION C5**	José I. San Martín Díaz
		Przemyslaw Janik
		Lidiia Kovernikova
		Yudong Ma
		Raos Riad Massad
10:45-12:15	**ORAL SESSION A6**	Augusto Fleury Veloso
	ORAL SESSION B6	Vit Brslica

We have received till now the following accepted papers for the "INTERNATIONAL CONFERENCE ON RENEWABLE ENERGIES AND POWER QUALITY (ICREPQ'12)"

Nº	*Titles/Authors/Institution/Country*
200	**General Properties of Approaches Maximizing Power Yield in Thermo-Chemical Systems** Stanislaw Sieniutycz Faculty of Chemical and Process Engineering at Warsaw TU. Poland
210	**Self-Extinguishing Faults in MV Cable Networks - Feasibility Study of Fault Prediction** Fabian Koehler(1), Sjef Cobben(2), Frans Provoost(1) 1. Alliander – The Netherlands 2. Alliander – The Netherlands Eindhoven, University of Technology
212	**A Novel Power Quality Monitor Placement Method Using Adaptive Quantum-Inspired Binary Particle Swarm Optimization** A. A. Ibrahim, A. Mohamed, H. Shareef Department of Electrical, Electronic and Systems Engineering. University Kebangsaan Malaysia
215	**Experimental study of thermal and vibrational behaviour of an induction motor** D. García(1), F. T. Oliveira(1,2,3), G. Peláez(4), M.P. Donsión(1) 1. Department of Electrical Engineering, EII, University of Vigo, Vigo, Spain 2. Department of Electrical Engineering, School of Technology and Management, Polytechnic Institute of Leiria, Leiria, Portugal 3. Institute for Systems and Computers Engineering at Coimbra,Coimbra, Portugal 4. Department of Mechanical Engineering, EII, University of Vigo
218	**Dimension and Production of a turbine Type Francis** Elmo Thiago Lins Cöuras Ford(1), Ana Catarina Mendes Barradas(2), José Ubiragi de Lima Mendes(3), Rubens Maribondo do Nascimento(3) 1.Universidade do Porto / Universidade Federal do Rio Grande do Norte. 2.Universidade de Coimbra. Portugal 3.Universidade Federal do Rio Grande do Norte – UFRN. Brazil
220	**Adjustment in the Least Square Meaning of a Neural Model for Electric Arc Quenching in High Voltage Circuit Breakers** A. Ziani, H. Moulai Laboratory of Electrical and Industrial Systems, FEI,USTHB. Algiers
225	***SMART GRID* framework for Pakistan" Perception to practicality** Arjumand Samad Electrical Engineering Department NED University of Engineering and Technology. Pakistan
228	**Investigation of the stall delay of a 5kW horizontal axis wind turbine using numerical method** Hsiao Mun Lee, Leok Poh Chua School of Mechanical & Aerospace Engineering Nanyang Technological University. Singapore
230	**Comparative study of the opportunity to use Renewable Energy Sources to supply Residential Consumers** F. D. Surianu, I. Borlea, D. Jigoria-Oprea, B. Lustrea Department of Power Engineering "Politehnica" University of Timisoara. Romania

233	**Performance analysis of Euro-zone energy companies** Valdir de J. Lameira(1), Silvano Vergura(2), Osvaldo L. G. Quelhas(3), Roberto G. Pereira(4) 1. Researcher at Energy Economics INESC Coimbra. Portugal 2. Department of Electrotechnics Politecnico di Bari. Italy 3. Federal Fluminense University, TEC/MSG. Brazil 4. Federal Fluminense University, TEM/PGMEC/MSG. Brazil
234	**Energy conservation using high-efficiency electric motors** Sergio Roberto Jardim, Gilmar Barreto State University of Campinas - UNICAMP, School of Electrical and Computer Engineering – FEEC. Department of Machine Components and Smart Systems - DMCSI Brazil
239	**Computational Simulation versus Scale Model to determine the Optimal Shape of Tension Structures for the use of Sunlight in Road Tunnels** L.M. Gil-Martín(1), A. Peña-García(2), R. Escribano(3), A. Espín-Estrella(2) 1. Department of Structural Mechanics. ETSICCP, University of Granada. Spain 2. Department of Civil Engineering. ETSICCP, University of Granada. Spain 3. Department of Graphical Expression in Architecture and Engineering. ETSIE, University of Granada. Spain
240	**Development of a Monte Carlo simulation tool in order to minimize polluting gases emissions in presence of wind power under cost and load covering constraints** F. Vallée(1), C. Versèle(2), J. Lobry(2) F. Moiny(1) 1. Department of General Physics Faculté Polytechnique, University of Mons.Belgium 2. Department of Electrical Power Engineering Faculté Polytechnique, University of Mons. Belgium
241	**CFD simulations for investigating the wake states of a new class of tidal turbine** Mulualem G. Gebreslassie, Gavin R. Tabor, Michael R. Belmont College of Engineering, Mathematics and Physical Sciences. University of Exeter. United Kingdom
243	**Energy and Greenhouse Gas Analysis for Biogas Power Plants** Wolfgang Bauer(1), Stefan Bauer(2), Thomas Bauer(1) 1. Department of Physics and Astronomy, Michigan State University. USA 2. CPM Biogas GmBH & Co KG, Nidderau, Germany
245	**Effect of Superconducting Fault Current Limiters on Successful Interruption of Circuit Breakers** M. Firouzi (1) , S. Aslani(1), G. B. Gharehpetian(2) , A. Jalilvand (3) 1. Department of Electrical Engineering, Islamic Azad University, Abhar. Iran 2. Electrical Engineering Department, Amirkabir University of Technology, Tehran. Iran 3. Electrical Engineering Department, University of Zanjan. Iran
246	**Frequency Variations of Power System Due to Switching of Renewable Energy Sources** W. L. Fuchs , E. F. Fuchs University of Colorado at Boulder Department of Electrical, Computer and Energy Engineering, Boulder, Colorado. USA
247	**Wind building design** M, Martínez, A. Pulido, J. Romero, N. Angulo, C. Roca Department of Electrical Engineering Universidad de Las Palmas de Gran Canaria. Spain
250	**Control Strategies for a Power Electronic Based Fault Current Limiter (FCL) in No-Fault Operation** Manuel Weiland, Christoph Hahn, Gerhard Herold

	Institute of Electrical Power Systems, University of Erlangen-Nuremberg. Germany
251	**Control Design for a Power Electronic Based Fault Current Limiter (FCL)** Christoph Hahn, Manuel Weiland, Gerhard Herold Institute of Electrical Power Systems of the University of Erlangen-Nuremberg. Germany
253	**The Sampling Theorem based Methodology for Harmonics Analysis** P. Bokoro(1), J. Pretorius(2), M. Case(1) 1. Department of Electrical & Electronic Engineering Technology. University of Johannesburg. South Africa 2. Department of Electrical & Electronic Engineering Science. University of Johannesburg. South Africa
255	**Temperature of Wood Char Particles Burning in a Fluidized Bed Reactor** N. Tomé, N. Rangel , C. Pinho CEFT/DEMec, Faculdade de Engenharia, Universidade do Porto. Portugal
256	**A theoretical study on third generation photovoltaic technology: dye-sensitized solar cells** J. Gong, K. Sumathy Department of Mechanical Engineering North Dakota State University.U.S.A
258	**A Simplified Life Cicle Assessment applied to a coupled Solar and Eolic street ligh** Jean-Luc Menet Université Lille Nord de France, ENSIAME, UVHC. France
260	**Experimental and theoretical analysis of thermal solar collector systems for DHW in Northern Italy** Arboit, M. (2); Toniolo, J. (1); Ghafoor, A. (1); Fracastoro, G.V. (1) 1. Department of Energetics, Politecnico di Torino. Italy 2. Instituto de Ciencias Humanas, Sociales y Ambientales (INCIHUSA—CONICET), Mendoza. Argentina
261	**Analysis and Energetic Characterization of Low-Power Grid-Connected Photovoltaic Systems** António P. Martins, Domingos M. Carvalho Department of Electrical and Computer Engineering, Faculty of Engineering, University of Porto. Portugal
265	**Educational Architecture: Evaluation of and Proposals for Energy Performance of the Building Envelope** Aimilios Michael Department of Architecture, School of Engineering, University of Cyprus. Nicosia
267	**Innovative Construction Component** Aimilios Michael (1), Maria Eftychi(2), Flora Bougiatioti(3) 1. Department of Architecture, School of Engineering, University of Cyprus, Nicosia 2. University of Nicosia, Department of Architecture, Nicosia. Cyprus 3. N.T.U.A., Faculty of Architecture, Department of Architectural Technology, Athens. Greece
268	**Construction Design and Sustainability in Architecture: Integrating Environmental Education in the Architectural Studies** Aimilios Michael , Marios C. Phocas Department of Architecture, School of Engineering, University of Cyprus. Nicosia

271	**Feasibility study of biogas in CHP plant for a pig farm** F. Patania , A. Gagliano, F. Nocera , A. Galesi Department of Industrial and Mechanics Engineering D.I.I.M., Catania University. Italy
272	**Performance of Power-Line-Signaling Based Detection Algorithms for Islanding Protection of Distributed Generators in Interharmonic Polluted Systems** H. Jouybari-Moghaddam, G. B. Gharehpetian S. H. Hosseinian Department of Electrical Engineering Amirkabir Universtiy of Technology Tehran.Iran
274	**Comparison of Multicarrier PWM Strategies for Five-level Z-Source Diode-Clamped Inverter for On-Grid Renewable Energies Applications** M. Nasiri, G. B. Gharehpetian, J. Milimonfared Electrical Engineering Department Amirkabir University of Technology Tehran. Iran
276	**Analysis and Characterization of a Square-Wave Modulation Method for Single-Phase Cascaded H-Bridge Multilevel Inverters** João C. Faria , António P. Martins Department of Electrical and Computer Engineering Faculty of Engineering University of Porto . Portugal
277	**Study of Shunt Active Power Filters Applied to Three-Phase Four-Wire Systems** E. J. Acordi, L. B. G. Campanhol, S. A. O. Silva, C. B. Nascimento , A. Goedtel Department of Electrical Engineering. Federal Technological University of Paraná - UTFPR .Brazil
280	**Impact of Multiple Inverter Based Distributed Generation Units on Harmonic Resonance** A. F. A. Kadir, A. Mohamed, H. Shareef, M.Z.C. Wanik Department of Electrical Engineering. Faculty of Engineering & Built Environment, University Kebangsaan Malaysia,Selangor. Malaysia
283	**A practical model to obtain the energy produced by Grid-Connected Photovoltaic Systems (GCPVS) in different parts of the Spanish geography** Rafael M. Lamaison, Javier Raventós Department of Electrical Engineering. U.P.C Politecnical University of Catalonia, Barcelona, Spain
285	**Modeling and Reactive Power Control of Wind and Fuel Cell Technologies in Distribution Networks** M. M. A. Mahfouz(1), Mohamed A. H. El-Sayed(2) 1. Electrical Power and Machines Dept. Electrical Engineering Department Helwan University. Egypt 2. Electrical Engineering Department, Kuwait University. Kuwait
286	**ENERCARE** Miguel Lagares-Lemos, Enrique Jiménez-Domingo, Ángel Lagares-Lemos and Juan Miguel Gómez-Berbís Computer Science Department,Universidad Carlos III de Madrid, Madrid, Spain
287	**Strategies to Reduce the Use of Fossil Fuels** Roberto C. Betini Departamento Acadêmico de Eletrotécnica - Universidade Tecnológica Federal do Paraná. Curitiba-PR. Brazil
288	**Renewable energy sources – a promising opportunity for remote mine sites?** J. Paraszczak , K. Fytas Department of Mining, Metallurgical and Materials Engineering Université Laval, Quebec

	City. Canada
289	**Digital controller for an isolated Step-Up DC-DC converter based on three-phase high-frequency transformer for grid-connected PV applications** R. D. O. Reiter(1), J. R. Pinheiro(2), A. Peres(1), L. Michels(2), S. V. G. Oliveira(1) 1. Regional University of Blumenau (FURB). Brazil 2. Federal University of Santa Maria (UFSM). Brazil
290	**Frequency Stability Analysis of a Dynamic Wind Park in an Integrated Power Grid** L. Thurner, S. Liu Department of Electrical and Computer Engineering, University of Kaiserslautern Germany
291	**Grid-connected PV-systems Joule design using Evolutionary Strategies** Daniel Gómez-Lorente , Enrique Alameda Hernández, F. Aznar Dols, M.J. Mercado Vargas, A. Espín Estrella Electrical Engineering Section, Department of Civil Engineering, E.T.S.I.C.C.P, Granada University. Spain
292	**Performance analysis of two industrial dryers (cross flow and rotary) for ligno-cellulosic biomass desiccation** Nadia Cairo, Gianpiero Colangelo, Giuseppe Starace Università del Salento Dipartimento di Ingegneria dell'Innovazione, Lecce. Italy
293	**2D Vibration based MEMS Energy Harvester** Sehwan Kim, Kukjin Chun Department of Electrical Engineering and Computer Science Seoul National University Korea
295	**Geothermal energy: Present use, Resources and Technology** M. R. Duque Department of Physics Évora University. Portugal
296	**An extended EMC study of an electrical powertrain for transportation systems** B. Chand, J. Keghie, S. Dickmann Faculty of Electrical Engineering, Helmut-Schmidt-University / University of the Federal Armed Forces Hamburg. Germany
298	**Power Control of a Wind Energy Conversion System based on a Doubly Fed Induction Generator using RST and Sliding Mode Controllers** A. Belabbes(1), B. Hamane(2), M. Bouhamida(1), A. Draou(2) 1. Department of Electrical Engineering L.D.E.E Laboratory, University Mohamed Boudiaf, Oran. Algeria 2. Department of Electrical Engineering, Hail University, Hail. Saudi Arabia
299	**Development of Solar Powered Boat for Maximum Energy Efficiency** Juraci Carlos de Castro Nóbrega(1,2), Andrej Rossling(2) 1.Department of Electrical Engineering U.F.A.M., Amazonas University. Brazil 2.ANAST – Naval Architecture Research Unit., Liège University. Belgium
300	**Pressurized concentrated solar power receiver designed to operate with closed Brayton cycles** R. Ferreiro Garcia(1), R. Borras Formoso(1), A. DeMiguel Catoira(2), J. Romero Gomez(2) 1. Department of Industrial Engineering .E.T.S.N.M., A Coruña University. Spain 2. Department of Energy and Propulsion. E.T.S.N.M., A Coruña University. Spain

301	**An efficient parabolic dish engine based on Rankine cycle** R. Ferreiro Garcia(1), J. Carbia Carril(2), A. DeMiguel Catoira(2), J. Romero Gomez(2) 1. Department of Industrial Engineering .E.T.S.N.M., A Coruña University. Spain 2. Department of Energy and Propulsion. E.T.S.N.M., A Coruña University. Spain
303	**Accuracy Improvement in One-day Ahead Wind Power Output Prediction by Computational Fluid Dynamics Calculation** T. Kumano Department of Electronics & Bioinformatics. School of Science and Technology, Meiji University. Japan
305	**Electrical losses in multi-MW wind energy conversion systems** A. Madariaga(1), C. J. Martinez de Ilarduya(1), S. Ceballos(2), I. Martinez de Alegria(1), J.L. Martin(1) 1. Engineering Faculty of Bilbao, University of the Basque Country,Bilbao. Spain 2 .Tecnalia Research & Innovation. Parque Tecnologico de Bizkaia, Derio. Spain
307	**Input Current Distortion and Output Voltage Regulation of the Boost PFC Converter Operating with Different Control Method** António P. Martins, António M. Cardoso Department of Electrical and Computer Engineering, Faculty of Engineering, University of Porto. Portugal
308	**Permanent magnet wind generators: control strategies to manage voltage unbalances** F. Belloni, R. Chiumeo, C. Gandolfi RSE – Ricerca sul Sistema Energético, Milano. Italy
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503	**Introducing the Solar Radiation Atlas of Galicia, the ultimate resource to assess and exploit solar radiation in Galicia (NW Spain)** A. Pettazzi, S. Salsón MeteoGalicia, Galician Weather Service Consellería de Medio Ambiente, Territorio e Infraestruturas - Xunta de Galicia Santiago de Compostela. Spain
504	**Coupling digital terrain to radiative transfer model to assess surface solar radiation at high resolution scale: validation of GIS module r.sun in Galicia** A. Pettazzi, S. Salsón MeteoGalicia, Galician Weather Service Consellería de Medio Ambiente, Territorio e Infraestruturas - Xunta de Galicia Santiago de Compostela. Spain
505	**Merging remote sensing data with in-situ measurements of global solar radiation: the right path to estimate the solar resource in Galicia** A. Pettazzi, S. Salsón MeteoGalicia, Galician Weather Service Consellería de Medio Ambiente, Territorio e Infraestruturas - Xunta de Galicia Santiago de Compostela. Spain
508	**Modelling of Photovoltaic Generators Based on a Linearized Equivalent Circuit** Andreas D. Theocharis(1,2), Eleftheria C. Pyrgioti(2) Ioannis A. Naxakis(2) 1. Department of Electrical Engineering Technological and Educational Institute of Patras, Greece 2. Department of Electrical and Computer Engineering. University of Patras. Greece
509	**Advanced Superconducting Power Conditioning System for Effective Use of Renewable Energy** T. Shintomi(1), Y. Makida(2), T. Hamajima(3), S. Tsuda(3), D. Miyagi3, T. Takao(4), N. Tanoue(4), N. Ota(4), K. Munakata(5), M. Kajiwara(5) 1. Advanced Research Institute for the Science and Humanities, Nihon University, Tokyo. Japan 2. Institute of Particle and Nuclear Studies, High Energy Accelerator Research Organization. Japan 3. Electrical Communication Engineering Department, Graduate School, Tohoku University. Japan 4. Department of Engineering and Applied Sciences, Sophia University. Japan 5. Iwatani Corporation, Osaka. Japan
510	**Design parameters independent on the type of platform in floating offshore wind farms** L. Castro - Santos, Sara Ferreño González, Alba Martínez López, V. Diaz-Casas Grupo Integrado de Ingeniería. University of A Coruña.Ferrol. Spain
512	**Assessment of Financial Losses Due to Voltage Sags Using Optimal Monitoring Schemes** M. Avendaño-Mora(1), J.V. Milanović (1), Manuel Madrigal Martínez(2) 1. School of Electrical and Electronic Engineering. University of Manchester. United Kingdom 2. P. G. I. I. E. Instituto Tecnológico de Morelia. México

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517	**Neural-Networks and Synchronous Reference Frame Applied in the Harmonic Compensation with a Three-Phase Parallel Active Power Filter** L. B. G. Campanhol(1), A. Goedtel(1), S. A. O. Silva(1) C. F. Nascimento(2) 1. Department of Electrical Engineering UTFPR, Federal University of Technology, Parana .Brazil 2. Center of Engineering (CECS). UFABC, Federal University of ABC. Sao Paulo. Brazil
519	**Performance Analysis of Methods at Estimating Insulated Cables Degradation** L. N. Velasco(1), A. Reis(1), J. C. Oliveira(1), L. C. G. Freitas(1), A. P. Finazzi(2), F. N. Lima(2), H.C. Martins(3), W. J. Araújo(3), J. M. Borges(3) 1. Federal University of Uberlândia (UFU), Faculty of Electrical Engineering ,Uberlândia. Brazil 2. Federal University of Mato Grosso (UFMT), Electrical Engineering Department, Cuibá. Brazil 3. Companhia Energética de Minas Gerais (CEMIG), Belo Horizonte. Brazil
521	**La0,6Sr0,4CoO3 Coating on AISI 430 Ferritic Stainless Steel for Application in ITSOFC Interconnects** M. Korb(1), I. D. Savaris(1), E. E. Feistauer(2), L. S. Barreto(2), V. C. Sousa(3), I. L. Müller(1) C. Malfatti(1) 1. Departamento de Metalurgia (DEMET), Laboratório de Pesquisa em Corrosão (LAPEC). Universidade Federal do Rio Grande do Sul (UFRGS). Brazil 2. Núcleo de Ciência e Engenharia de Materiais. Universidade Federal de Sergipe (UFS). Brazil 3. Departamento de Materiais (DEMAT), Laboratório de Biomateriais (Labiomat), Universidade Federal do Rio Grande do Sul (UFRGS). Brazil
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528	**Air flow prediction and evaluation of ventilation Effectiveness with different zonal configurations** N. Guerfala(1), H. Fellouah(1), A. Daoud(2), N. Galanis(1) 1. Department of Mechanical Engineering. Université de Sherbrooke, Québec. Canada 2. Institut de Recherche d'Hydro-Québec, Laboratoire des Technologies de l'Énergie (LTE), Shawinigan, Québec, Canada.
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532	**Modeling of equivalent grids through vulnerability studies for analysis of power systems with wind producers** C.B.M. Oliveira(1), J.T.de Oliveira(1) M.F.de Medeiros Jr.(2) 1. Department of Computing and Automation Engineering. UFRN, Federal University of Rio Grande do Norte, Mirassol, Natal. Brazil 2. Department of Electrical Engineering. UFRN, Federal University of Rio Grande do Norte. Mirassol, Natal. Brazil
533	**Enhanced recovery of light-induced degradation on the micromorph solar cells by reverse bias** H.-C. Sun(1), J. Y. Chen(1), Y.-J. Yang(1), T.-M. Chao(1), W.-D. Chen(1), C. W. Liu(1,2), W.-Y. Lin(2), C.-C. Bi(3), C. -H. Yeh(3) 1. Department of Electrical Engineering and Graduate Institute of Electronic Engineering, National Taiwan University 2. Graduate Institute od Electronics Engineering, Graduate Institute of Photonics and Optoelectronics, Department of Electrical Engineering, Center for Condensed Matter Sciences and Center for Emergerging Material and Advanced Devices, National Taiwan University, Taipei, Taiwan, and National Nano Device Laboratories, Hsinchu, Taiwan 3 .NexPower Technology Corporation. Taichung, Taiwan
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538	**Physico-chemical properties of transformer mineral oils submitted to moisture and electrical discharges** T. Toudja(1), A. Nacer(1) , H. Moulai(1) , I. Khelfane (2), A. Debche (3) 1. Laboratory of Electrical and Industrial Systems, FEI, BP 32, University of Sciences and Technology Houari Boumediene, Algiers. Algeria 2. Centre of Research and Development on Electricity and Gas, SONELGAZ. Algeria 3. Electricity Transmission Power-Grid, SONELGAZ, Algiers. Algeria
542	**Islanding detection of synchronous distributed generators** A. Etxegarai(1), I. Zamora(1), P. Eguia(1), L. Valverde(2) 1. Department of Electrical Engineering - University of the Basque Country Escuela Técnica Superior de Ingeniería de Bilbao. Spain 2. Department of Electrical Engineering EUITMOP, University of the Basque Country Barakaldo. Spain
543	**A Mathematical Method of Energy Resources Flows Data Validating using the State Estimation Theory** Vladislav O. Samoylenko, Andrew V. Pazderin Department of Automated Electrical Systems, Boris Yeltzin Ural Federal University Ekaterinburg. Russia
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547	**A proposal for Computational Refunding Analysis based on real time disturbances measurements** I. N. Gondim, C. E. Tavares, J. A. F. Barbosa Jr. , J. C. Oliveira, A. Oliveira, P. H. O. Rezende Federal University of Uberlandia, Faculty of Electrical Engineering, Uberlândia. MG. Brazil
549	**Batteries comparison for an optimal accumulation performance on PV isolated systems** A.Daniel Rey Rey(1,2),A. López Aguera(1) ,I.Rodriguez Cabo(1), E. Vieites Montes(1), J. Demetino(2), I. Pepe(2) 1. Laboratorio de Aplicaciones Energetica Sostenibles, Departamento de Física de Partículas, University of Santiago de Compostela. Spain 2. Laboratório de Propriedades Óticas Instituto de Física, Universidade Federal da Bahia. Brazil
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554	**Determining Optimal Breakpoints in Urban Power Networks with Genetic Algorithm** S.E.Kokin(1), S.A.Dmitriev(2) A.I.Halyasmaa(1) 1. Department of Automated Electric Systems, Ural Energy Institute, Ural Federal University named after 1st Russian president B.N.Yeltsin, Yekateringburg, Russia 2. Department of Automated Electric Systems, Ural Energy Institute, Ural Federal University named after 1st Russian president B.N.Yeltsin, Yekateringburg, Russia
556	**Iran's Participatory Power Market Regarding Distributed Generation from Renewable Sources: A Case Study** A.M. Motavaselian(1), A.R. Faghih Khorasani(2) 1. Yazd Pars-ris Company. Iran 2. Department of Mechanical Engineering, Faculty of Engineering, Yazd University. Iran
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559	**Performance Assessment of an Aeolian Roof for the Exploitation of Wind Power in Urban Areas** S. Carcangiu, A. Montisci Department of Electrical and Electronic Engineering, University of Cagliary, Cagliary, Italy
564	**A Novel Scheme to Protect Distribution Networks in Presence of Inverter-Based Distributed Generation** E. Ebrahimi, G. B. Gharehpetian, J. Milimonfared Department of Electrical Engineering, Amirkabir University of Technology, Tehran. Iran
565	**Low-Cost Instrument for Tracing Current-Voltage Characteristics of Photovoltaic Modules** Vicente Leite(1), José Batista(1), Faustino Chenlo(2) João L. Afonso(3)

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566	**Application of Trigeneration to a Multi-Unit Residential Building in Canada** D. Allaire-Tanguay(1), N. Galanis(1), R. Sunyé(2) 1. Department of Mechanical Engineering, Université de Sherbrooke, Sherbooke QC, Canada 2. Canmet ENERGY, Natural Resources Canada, Varfennes, Canada
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569	**Modelling and Validation of the Magnetizing Curve to Represent Saturated Core Reactor Using ATP Simulator** J.A.F. Barbosa Jr, J. C. Oliveira, T. V. Silva, I. N. Gondim, F. P. Santilio, L. N. Velasco Faculty of Electrical Engineering UFU, Federal University of Ubêrlandia, Ubêrlandia, Brazil
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590	**Evaluation of the Harmonic Impact in an Electrical System Using Polynomial-Regression Method**

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591	**Ageing estimation for the batteries of the Pierre Auger Observatory** A. López Agüera(1,2), I. Rodríguez Cabo(1,2), D. Rey Rey(1,2) Department of Particle Physics & Galician Institute of High Energy Physics. 1. Sustentable Energetic Applications Group 2. Astroparticle Group. Physics Faculty, Santiago of Compostela University. Spain
593	**Development of a Quality Management System for Electric Power applied to Small Wind Turbines** Ando Junior, O. H.(1,2); Oliveira, M. O.(2,3); Neto, J. M.(1); Spacek, A.D.(1); Leborgne, R. C.B.(2), Bretas, A. S.(2) 1. Electrical Engineering Department, SATC, Beneficent Association of Santa Catarina Coal Industry, Criciúma-Sc. Brazil 2. Electrical Engineering Department, UFRGS, Federal University of Rio Grande do Sul, Porto Alegre-Rs. Brazil 3. Energy Study Center to Development-CEED, UNaM, National University of Misiones, Oberá, Mnes. Argentina
594	**Use of the Newton's Method to Rotor-Resistance Control of Wind Turbine Generators** A. F. Bastos(1), E. F. Cota(1), S. R. Silva(2), H. A. Pereira(1,2) 1. Department of Electrical Engineering, Universidade Federal de Viçosa. Brazil 2. Graduate Program in Electrical Engineering – Universidade Federal de Minas Gerais Belo Horizonte, MG. Brazil
597	**Voltage-induced stresses during Low-Voltage Ride Through (LVRT) in the drive train of wind turbines with DFIG** Jan Wenske(1), Ulrich Beckert(2) 1.-Fraunhofer Institut für Windenergie und Energiesystemtechn, IWES, Bremerhaven. Germany 2. Institut für Elektrotechnik, TU Bergakademie Freiberg. Germany
600	**Energy Reductions in the Pulp-and-Paper Industry by Upgrading Conventional Pumping Systems through the Installation of VFDs – A Case Study** António Bonifácio(1,2), Pedro Coelho(2), Inácio Fonseca(1), Fernando Lopes(1,3) 1. Department of Electrical Engineering, Instituto Superior de Engenharia de Coimbra. Portugal 2. Soporcel,SA – Maintenance Management Direction. Figueira da Foz. Portugal 3. Telecommunications Institut - Pólo II da Universidade de Coimbra. Portugal
603	**Development of PtNi and PtSnNi/C Nanocatalysts for Energy Conversion form Ethanol Electrooxidation** P. Correa(1), E. Leal da Silva(1), R. Figueira(2), C. Radtke(3), B. Moreno(4), E. Chinarro(4), C. Malfatti(1) 1. Departamento de Metalurgia (DEMET), Laboratório de Pesquisas em Corrosão (LAPEC) Universidade Federal do Rio Grande do Sul (UFRGS). Brazil 2. Instituto de Geociências, Laboratório de Difratometria de Raios-X, Universidade Federal do Rio Grande do Sul (UFRGS). Brazil 3. Instituto de Química. Universidade Federal do Rio Grande do Sul (UFRGS). Brazil 4. Instituto de Ceramica y Vidrio (ICV). Universidad Autónoma de Madrid. Spain
604	**A Contribution to Isolated and Grid-Connected Photovoltaic Systems under Shadow Conditions** A. F. Cupertino, J. T. de Resende, B.M Silveira, A.O.R. Vilela, H.A Pereira Department of Electrical Engineering, Universidade Federal de Viçosa, Minas Gerais. Brazil

607	**Estimating the estate of charge of lead-acid batteries** G. G. Demetino(1), I.M. Pepe(2), V. L. Filardi(1), L. C. S. Soares Júnior(2), C. E. T. Silva(1), G. P. Guedes(3), J.G. Lima Brasílio(3), D. Rey Rey(4), A. L. Aguera(4), J.C. Anjos(5) 1. PPGM-Programa de pós-graduação em Mecatrônica. Laboratório de Propriedades Óticas, Instituto de Física, Universidade Federal da Bahia. Brazil 2. Laboratório de Propriedades Óticas, Instituto de Física, Universidade Federal da Bahia. Brazil 3. Laboratório de Instrumentação e Energia Solar. Departamento de Física, Universidade Estadual de Feira de Santana. Brazil 4. Laboratorio de Aplicaciones Energetica Sostenibles. Departamento de Física de Partículas, Universidad de Santiago de Compostela. Spain 5. Centro Brasileiro de Pesquisas Físicas. Rio de Janeiro. Brazil
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611	**Renewable Energy in Residential Buildings Analysis of different micro-generation systems** M. Rodrigues(1), M. Valdez(1) D. Coelho(1,2) 1. ISEC - College of Engineering of Coimbra. Portugal 2. INESC Coimbra. Portugal
612	**Efficient space heating in a Portuguese Public Building Replacement of a Liquefied Petroleum Gas Boiler by Heat Pump** D. Costa(1), L. Pedro(1)' D. Coelho(1,2) 1. ISEC - College of Engineering of Coimbra. Portugal 2. INESC Coimbra. Portugal
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623	**Analysis of Generalized Non-Active Power Theory for Compensation of Non-Periodic Disturbances** Josef Tlusty(1), Jan Svec(1), Josep Balcells Sendra(2), Viktor Valouch(3) 1. Department of Electric Power, Engineering. Faculty of Electrical Engineering, CTU Prague, Czech Republic 2.Department of Electronic Engineering, Universitat Politècnica de Catalunya, Terrassa, Spain 3.Institute of Thermomechanics, Academy of Sciences of the Czech Republic Prague, Czech Republic
625	**Requirements for a modern PQ and DFR monitoring system. PQ monitoring case study in Portugal** Fernando Pimenta(1), Robert Neumann(2) 1. QEnergia, Sintra. Portugal 2. Product Manager Power Quality Qualitrol, Belfast. United Kingdom
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629	**Development of Biomass Utilization in Latvia** P.Shipkovs(1,2), G.Kashkarova(1), K.Lebedeva(1) L.Migla(1, 2) 1. Energy Resources Laboratory, Institute of Physical Energetics, Riga. Latvia 2. Riga Technical University. Riga, Latvia
634	**Impact of Distributed Generation on Fault Locating Methods in Distribution Networks** E. Ebrahimi, A. J. Ghanizadeh, M. Rahmatian, G. B. Gharehpetian Department of Electrical Engineering, Amirkabir University of Technology, Tehran. Iran
637	**Smart Structural Control Strategies for Offshore Wind Power Generation with Floating Wind Turbines** Ningsu Luo(1), Lluís Pacheco(2), Yolanda Vidal(3), Hui Li(4) 1. Institute of Informatics and Applications, University of Girona, Girona. Spain 2. Institute of Informatics and Applications, University of Girona, Girona. Spain 3. Department of Applied Mathematics III, UPC – Barcelona Tech, Barcelona. Spain 4. School of Civil Engineering, Harbin Institute of Technology, Harbin. China
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644	**Thermal optimization the width of light absorbing plate of sheet-tube solar absorbers for preheating of feed water in combined solarfuel systems of hot water supply** N.R.Avezova(1), R.R.Avezov(1), A.L.Aguera(2), J.S.Akhatov(1), K.A.Samiev(1) 1. PhysicalTechnical Institute, SPA "PhysicsSun",Tashkent.Uzbekistan 2. Department of Particle Physics & Galician Institute of High Energy Physics, Sustainable Energetic Applications Group, University of Santiago de Compostela.Spain
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651	**Investigating University Personnel Computers (PC) Produced Harmonics Effect on line Currents** M. H. Shwehdi(1), F. S. AL-Ismail(2) 1. Electrical Engineering Department, King Faisal University. Saudi Arabia 2. King Fahad University of Petroleum &Minerals. Saudi Arabia
654	**Estimation of power components for non-sinusoidal currents and voltages regarded as power quality indices** P. Janik, Z. Wacławek Department of Electrical Engineering, Wroclaw University of Technology. Wroclaw, Poland
659	**Electric field analysis in warning light for power lines of high voltage** J.A.Güemes(1), A. Iraolagoitia(1), P. Fernández(2), J. Sánchez(3) 1. Department of Electrical Engineering, E.U.I.T.I. University of the Basque Country. Spain 2. Electronics and Telecommunications Department. E.U.I.T.I. University of the Basque Country. 3. Research and Development Department, Saprem, Izurdiaga-Izurzun, Spain
660	**Fuzzy Logic Based Power Management Strategy for Plug-in Hybrid Electric Vehicles with Parallel Configuration** Hasan Alipour, Behzad Asaei, Ghias Farivar School of Electrical & Computer Engineering, University of Tehran. Iran
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664	**Minimization of torque ripple in switched reluctance motor drives using direct instantaneous torque control** J. Castro, P. Andrada , B. Blanqué Electronically Commutated Drives Group (GAECE), Departament d'Enginyeria Elèctrica (DEE), Escola Politècnica Superior d'Enginyeria de Vilanova i la Geltrú (EPSEVG). Universitat Politècnica de Catalunya (UPC). BARCELONATECH, Vilanova i la Geltrú, Barcelona. Spain
667	**Cloud Computing for Renewable Power Systems** Mussie Geberslassie, Berthold Bitzer South Westphalia University of Applied Sciences, Soest. Germany
671	**Impedance-Based Methods for Detection of Voltage Sag Sources** Boštjan Polajžer, Gorazd Štumberger, Drago Dolinar University of Maribor. Faculty of Electrical Engineering and Computer Science, Maribor. Slovenia
672	**Matlab based Model of 40-MW Concentrating Solar Power Plant** Silvano Vergura, Virginio Di Fronzo Department of Electrotechnics. Politecnico di Bari. Italy
673	**EOLMAP: A web tool to assess the wind resource over Spain** R. Lorente-Plazas, J.P. Montávez, S. Jerez, J. J. Gómez Navarro, P. Jiménez Guerrero, P. A. Jiménez, J.A. García-Valero, F. Gomáriz-Castillo, F. Alonso-Sarría Department of Physics, Murcia University. Murcia, Spain
675	**Estimation of Power System Harmonics and Interharmonics in the Presence of Aperiodic Components** M.A. Zorrozua(1), J. Lazaro(2), J.F. Miñambres(1), B. Larrea(2), M.Sanchez(2) 1. Department of Electrical Engineering E.T.S.I., Basque Country University (UPV/EHU)

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678	**Coastal Sea Power. A proposal for Exploitation Wave Energy** R. Borras(1), R. Ferreiro(1), F. Miguelez(2), R. Rodriguez(3) 1.UDC, Industrial Engineering Department, ETSNyM-Universidad de A Coruña (UDC). Spain 2.UDC, Physics Department, ETSNyM-Universidad de A Coruña (UDC). Spain 3.UDC, Energy and Propulsion Department, ETSNyM-Universidad de A Coruña (UDC). Spain
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680	**The Strategic Importance of the Electric Transmission in a System Based on Primary Renewable Source** T. H.V. Silveira(1), A.A. Bertoni(1), D.M. Silva(1), L.C. Fonseca(1), A. F. V. Silveira(1,3), A.W.F.V. Silveira(2) 1. Academic of Department of Electrical Engineering – PUC-Go. Brazil 2. FEELT-UFU. Brazil 3. UEG. Goiânia. Brazil
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683	**Dealing with the Very Small: First Steps of a Picohydro Demonstration Project in an University Campus** Vicente Leite, Tomás de Figueiredo, Tiago Pinheiro, Ângela Ferreira, José Batista Polytechnic Institute of Bragança. Portugal
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692	**Minimalistic approach of a complex and flexible teaching laboratory for photovoltaic energy conversion: experience from courses at the Kasetsart University in Bangkok and at GPEsolar (Technical University Berlin)** Th. Dittrich Helmholtz Center Berlin for Materials and Energy, Hahn-Meitner-Platz. Berlin. Germany

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698	**Two Control Strategies for Aggregated Wind Turbine Model with Permanent Magnet Synchronous Generator** M. J. Mercado-Vargas(1), Fujin Deng(2), O. Rabaza(1), E. Alameda-Hernandez(1), Zhe Chen(2) 1. Section of Electrical Engineering. Department of Civil Engineering Granada University. Spain 2. Department of Energy Technology, Aalborg University. Denmark
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724	**The Use of Digital Signal Prosessing Card in Active Power Filter Design To Mitigate Harmonic Distortion** Daniel Rohi, Limboto Limantara, David Wailanduw, Resmana L, Stephanus Ananda,Yusak Tanoto Electrical Engineering Department, Faculty of Industrial Technology, Petra Christian University, Surabaya. Indonesia
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728	**An Improved Bayesian-based Approach for Short Term Photovoltaic Power Forecasting in Smart Grids** A. Bracale(1), P. Caramia(1), U.De Martinis(2), A. R. Di Fazio(3) 1. Department for Technologies, University Parthenope of Napoli, Centro Direzionale di Napoli. Italy 2. Department of Electrical Engineering, University Federico II of Napoli, Italy 3. Department DAEIMI. University of Cassino . Italy
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740	**Wind Turbines under Power-Grid Partial Islanding** F. K. A. Lima(1), H. M. Oliveira Filho(1), J. B. Almada(1), M. I. B. V. Silva(1), D. V. P. Shimoda(1), J. L. Dantas(2) 1. Energy Processing and Control Group – GPEC. Department of Electrical Engineering -DEE. Federal University of Ceara-UFC. Brazil 2. Federal Institute Education, Science and Technology of Ceara – IFCE, Fortaleza. Brazil
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764	**Evaluation of Short-cycle Power Output Fluctuation of High-Penetration Photovoltaic Power Generation Systems using Multi-Points Insolation Data** Takeyoshi Kato(1), Shinsuke Kumazawa(1), Yasuo Suzuoki(1), Nobuhiko Honda(2), Masakazu Koaizawa(2), Shinichi Nishino(2) 1. Department of Electrical Engineering and Computer Science, Nagoya University. Japan 2. Electric Power Research & Development Center, Chubu Electric Power Co., Inc.Japan
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805	**Selection of domotic systems by AHP based rules weights calculations on models of Fuzzy Rules** R. Sáenz López, E. Jiménez Macías Department of Electrical Engineering, E.T.S.I.I., University of La Rioja, Logroño. Spain
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809	**Phase-Modulus Diagram of Instantaneous Current's Space Phasor as Diagnosis Tool of Induction Motor Stator Winding** Aurelian Crăciunescu, Gloria Ciumbulea, Media Marius Electrical Engineering Faculty, University "Politehnica" of Bucharest. Romania
811	**Performance Analysis of SOFC Systems Integrated with Steam Reforming of Different Renewable Fuels** D. Saebea(1), S. Authayanun(1), Y. Patcharavorachot(2), W.Paengjuntuek(3), A.Arpornwichanop(1) 1. Department of chemical engineering, Faculty of Engineering, Chulalongkorn University, Bangkok. Thailand 2. School of Chemical Engineering, Faculty of Engineering, King Mongkut's Institute of Technology Ladkrabang, Bangkok. Thailand 3. Department of Chemical Engineering, Faculty of Engineering, Thammasat University.Thailand
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816	**External Magnetic Fields of Powerful Generators** Mikhail Roytgarts Deputy Chief Designer of Turbogenerators, Turbogenerator Design Department, OJSC "Power Machines", Saint Petersburg. Russia
818	**Dimming Compatibility of 60W Replacement LED Lamps with Legacy Dimming Infrastructure** A. Boura, M. Husak

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