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Chairs: Alfonso Damiano - Italy, Yihua Hu - UK, Ron S.Y. Hui - Hong Kong,
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Chairs: Mo-Yuen Chow - USA, Juan Rodriguez-andina - Spain, andres A. Nogueiras Melendez - Spain

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Chairs: andreja Rojko - Slovenia, Joao Martins - Portugal, Ahmad Ibrahim - Canada

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Alessandro Lidozzi, Marco Di Benedetto, Luca Solero, Fabio Crescimbin Pages: 4995-5000

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Adjustable Speed Drives and Power Quality

Chairs: Frede Blaabjerg, Pooya Davari

1. An impedance-based analysis method for suppression of harmonics distortion by active damping control in multi-drive system composed by slim dc-link drive units
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2. Linear modeling of the three-phase diode front-ends with reduced capacitance considering the continuous conduction mode
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Advanced Modulation Techniques, Control Methods and New Applications of Multi-level Converters

Chairs: Jose I. Leon, Sergio Vazquez, Ramon Portillo

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6. Modelling and Control of the Modular Multilevel Matrix Converter and its application to Wind Energy Conversion Systems
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7. Operating region of a power cell in a chb based topology operating at reduced second harmonic
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8. Submodule power losses balancing algorithms for the modular multilevel converter

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Chairs: Kazuaki Ito, Makoto Iwasaki, Hiroshi Fujimoto

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Umberto Sartori, Francesco Biral, Enrico Bertolazzi, Simona Onori Pages: 5094-5100
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Chairs: Djaffar Ould Abdeslam, Dirk Benyoucef

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Chairs: Farhat Fnaiech, Eric Moreau, Jean-marc Ginoux

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5. Imu-based smart fitness devices for weight training
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Chairs: Marcelo Perez, Freddy Flores Bahamonde, Luis Martinez Salamero

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Chairs: Oscar Lucia Lucia, Michele Forzan

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Chairs: Valeriy Vyatkin, Jerker Delsing

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Rodolpho Neves, Ricardo Quadros Machado, Vilma Alves De Oliveira, Frede Blaabjerg, Xiongfei Wang Pages: 7028-7033
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Junbum Kwon, Xiongfei Wang, Claus Leth Bak, Frede Blaabjerg, Michael Hwang, Alan R. Wood, Neville R. Watson, Miguel Esparza Pages: 7034-7039
6. State-space-based harmonic stability assessment of paralleled grid-connected inverters system
Yanbo Wang, Xiongfei Wang, Zhe Chen Pages: 7040-7045

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Sustainable Cities: Tools & Methodologies For Managing Energy Performance In The Built Environment

Chairs: Susan Rea, Alan Mcgibney, Joern Ploennigs

1. Building energy load forecasting using deep neural networks
Kasun Amarasinghe, Daniel Marino, Milos Manic Pages: 7046-7051
2. Coordination scheme editor for building management systems add reviewed-
itsubmit
Maxime Louvel, François Pacull, Maria Isabel Vergara-gallego Pages: 7052-7057
3. Energy management systems for effective gap reduction between actual and
predicted power in smart homes and buildings
Maria Carmela Di Piazza, Massimiliano Luna, Annalisa Di Piazza, Giuseppe La Tona Pages: 7058-7064
4. On assuming mean radiant temperature equal to air temperature during pmv-
based thermal comfort study in air-conditioned buildings
Tanaya Chaudhuri, Yeng Chai Soh, Sumanta Bose, Lihua Xie, Hua Li Pages: 7065-7070
5. Open bms – iot driven architecture for the internet of buildings
Alan Mcgibney, Susan Rea, Joern Ploennigs Pages: 7071-7076
6. Permanent magnet synchronous motor control using dc-link current regula-
tion
Sadegh Vaez-zadeh, Iman Aminoroaya Pages: 7077-7082
7. Personal thermal comfort management in existing office buildings using energy-
efficient fans
Sindhu Santosh Shetty, Duc Chinh Hoang, Sanjib Kumar Panda, Manish Gupta Pages: 7083-7088

8. Predictive control for heating power variance and peak reduction in buildings
Antonio Starcic, Vinko Lesic, Mario Vasak Pages: 7089-7094
9. Reducing component selection complexity by component aggregation using design criteria
Matthias Lehmann, Tuan Linh Mai, Bastian Wollschlaeger, Klaus Kabitzsch Pages: 7095-7100
10. Simulation of real-time multi-objective optimization for a photovoltaic system with grid connection
Jean Meunier, Dominique Knittel, Pierre Collet, Guy Sturtzer Pages: 7101-7106

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Thermographic Analysis Technique For Fault Monitoring and Diagnosis In Industrial Machines and Industrial Facilities

Chairs: Jose Antonino-Daviu, Rene Romero-Troncoso

1. Detection of mechanical faults in induction machines with infrared thermography field cases
David Lopez-perez, Jose Antonino-Daviu Pages: 7107-7112
2. Methodology for thermal analysis of induction motors with infrared thermography considering camera location
Omar Munoz-ornelas, David Elvira-ortiz, Roque Osornio-rios, Rene Romero-Troncoso, Luis A Morales-hernandez Pages: 7113-7118
3. Self-adjustment methodology of a thermal camera for detecting faults in industrial machinery
Rene Romero-Troncoso, Juan A. Ramirez-Nunez, Luis A Morales-hernandez, Roque Osornio-rios, Jose Antonino-Daviu Pages: 7119-7124

Special Session Student Forum

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Han Yu, Shen Yin Pages: 7125-7130
2. A Novel Multi-Intensity Image Labeling Algorithm for Real-Time Computer Vision and Robotics Applications
Ehab Salahat Pages: 7131-7136
3. A novel nonlinear process monitoring approach locally weighted learning based total PLS
Xiaochen Xie, James Lam, Shen Yin, Kie Chung Cheung Pages: 7137-7142
4. A novel svm-rfe based biomedical data processing approach basic and beyond
Zuyu Yin, Zhongyang Fei, Chengming Yang, Ao Chen, Shen Yin Pages: 7143-7148
5. Comparison of KPI related fault detection algorithms using a newly developed Matlab toolbox DB-KIT
Yuchen Jiang, Shen Yin, Yunqiang Yang Pages: 7149-7154
6. Effect of Sampling Time and Sampling Instant on the Frequency Response of a Boost Converter
Sameer Arora, Poras T. Balsara, Dinesh K. Bhatia Pages: 7155-7160
7. Fault detection and process monitoring of industrial process based on spherical kernel T-PLS
Zelin Ren, Jian Hou, Hongpeng Zhou, Han Yu Pages: 7161-7166
8. Hard and soft switching operation of the half-bridge based on 900v sic mosfets
Anna Sarnowska, Jacek Rabkowski Pages: 7167-7172
9. Improving power quality in microgrids using virtual motor-generator set based control scheme
Y. V. Pavan Kumar, Ravikumar Bhimasingu Pages: 7173-7178

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Mingyang Yang, Xuebo Yang Pages: 7179-7184
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15. Optimal capacitor placement in distribution network with consideration of annual load profile case study meshkinshahr distribution network
Milad Gheydi Pages: 7208-7214
16. Pca and kpca integrated support vector machine for multi-fault classification
Chen Jing, Jian Hou, Shen Yin Pages: 7215-7220
17. Robust qft current control design for dcac grid converter
J.Manuel Del Toro, Jorge Pérez, Santiago Cobreces, Francisco Javier Rodríguez Pages: 7221-7226
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