

Date:	Time:	Hall:	Session Code:
17 Feb. 2016	13:30 - 15:30	A	A1
Session Title: High Step-up Converters			
Session Chairs: Dr. Rivera, Dr. Tavakoli Bina, Dr. Davari			
Paper ID	Paper Title	Authors	
P0116	Zero-Voltage-Transition High Step-Up Three Level Coupled-Inductor-Based Boost Converter	R. Moradmandi Zazi, M. Esteki, E. Aidi	
P0121	An Interleaved High Step-Up DC-DC Converter with Low Input Current Ripple	M. Fekri, H. Farzanehdar, E. Aidi	
P0129	A Novel Single Switch High Gain DC-DC Converter Employing Coupled Inductor and Diode Capacitor	M. Amiriabadi, K. Vafaei, M. Farnazadeh, A. Baghranfar	
P0131	Ultra Step-Up DC-DC Converter Based on Three Windings Coupled Inductor	S. M. Salehi, S. M. Dehghan, S. Hanzandeh	
P0210	A New Current-Fed High Step-Up Quasi-Resonant DC-DC Converter with Voltage Quadrupler	S. Salehi Dehaghshiri, S. H. Fathi, A. Baniomoghadam, J. Sotoudeh Moghani	
P07107	A High Step-Up Switched-Capacitor Converter with Zero Current Switching Technique for Using in Solar System Applications	S. M. Masoumi, R. Rezaei, R. Behravanvand, A. Yazdani Varjani	

Date:	Time:	Hall:	Session Code:
17 Feb. 2016	16:00 - 18:00	A	A2
Session Title: Predictive Control			
Session Chairs: Prof. Rodriguez, Dr. Vasquez			
Paper ID	Paper Title	Authors	
SS110	The Challenges of Predictive Control to Reach Acceptance in the Power Electronics Industry	M. Nonobona, C. Garcia, J. Rodriguez	
SS101	A Review of Predictive Control Techniques for Matrix Converters - Part I	M. Rivera, P. Wheeler, A. Ochoa	
SS1102	A Review of Predictive Control Techniques for Matrix Converters - Part II	M. Rivera, P. Wheeler, A. Ochoa	
SS1106	Predictive Torque Control of a Permanent Magnet Synchronous Motor Fed by a Matrix Converter without Weighting Factor	M. Siami, H. Kiani Savadkoobi, A. Abbaszadeh, D. Arab Khaburi, J. Rodriguez	
SS1105	A Predictive Current Control for a Single-Phase Matrix Converter	M. Rivera, S. Rojas, P. Wheeler, J. Rodriguez	
SS1103	Optimized Current Control of Vienna Rectifier Using Fuzzy Control Set Model Predictive Control	M. Yazdani, H. Karbameas	
SS1104	Predictive Control of a Five-Level NPC Inverter Using a Three-Phase Coupled Inductor	S. S. Fazel, H. Faraji	

Date:	Time:	Hall:	Session Code:
18 Feb. 2016	8:00 - 10:00	A	A3
Session Title: Power Electronics in Distributed Generation systems and Microgrids			
Session Chairs: Dr. Tahami, Dr. Davari			
Paper ID	Paper Title	Authors	
SS2102	Distributed Secondary Control in DC Microgrids with Low-Bandwidth Communication Link	S. Pyyhami-Akhaldeh, H. Mokhtari, P. Chang Loh, F. Blaabjerg	
SS2106	Voltage Unbalance and Harmonic Compensation in Microgrids by Cooperation of Distributed Generators and Active Power Filters	M.M. Hasheemipour, M. Savaghebi, J. C. Vasquez, V. M. Guerrero	
SS2113	Method for Load Sharing and Power Management in a Hybrid PV/Battery Source Islanded Microgrid	Y. Karimi, H. Oraee, J. C. Guerrero, R. Vasquez, M. Savaghebi	
SS1109	Minimum Slope Model Predictive Control with Double Margins	R. Fotouhi, H. Fang, R. Kennel	
P05112	Surging of Power Electronics EMC Filters using Design by Optimization Methodology	J.L. Schanen, A. Barastou, M. Delhommeaux, P. Zanchetta	

Date:	Time:	Hall:	Session Code:
18 Feb. 2016	13:30 - 15:00	A	A4
Session Title: Electric Drives and Control			
Session Chairs: Dr. Abbaszadeh, Dr. Fazel, Dr. Dehghan			
Paper ID	Paper Title	Authors	
E03104	A Precise Method to Detect the Accurate Rotor Position in BLDC Motors at Standstill Condition	O. Safarzadeh, M. Nezamabadi, E. Afjei	
E03111	Grid Synchronization of Brushless Doubly Fed Induction Generator Using Direct Torque Control	R. Sadeghi, S.M. Madani, M.R. Agha Kakhkooli	
E03114	Improved Direct Torque Control of DFIG with Reduced Torque and Flux Ripples at Constant Switching Frequency	M.R. Agha Kakhkooli, S.M. Madani, R. Sadeghi	
E03118	Using Extended Kalman Filter and Adaptive Filter for Sensorless Predictive Torque Control of PM-Assisted Synchronous Reluctance Motor	A. Sarajian, D. Arab Khaburi	
E08101	A New Hardware Device to Simulate the Movement of Electric Train Wheel on Rail	S. Sadi, D. Arab Khaburi	

Date:	Time:	Hall:	Session Code:
17 Feb. 2016	13:30 - 15:30	B	B1
Session Title: Converters for Renewable Energies			
Session Chairs: Dr. Rahmani, Dr. Savaghebi			
Paper ID	Paper Title	Authors	
P07102	Modified Local Voltage Controller Design of Inverter-based DGs in a Microgrid	H. Hosseini Kordkheili, M. Ranjani	
P07110	An Interleaved High-Power Two-Switch Flyback Inverter with a Fast and Robust Maximum Power Point Tracker	S. Mohammadi, H. Aboobari Zarchi	
P07114	Three Phase Photovoltaic Grid-Tied Inverter Based on Feed-Forward Decoupling Control Using Fuzzy-P Controller	F. Karbakhsh, G.B. Gharahpetian, J. Milimonfard, A. Tayeouni	
P07111	An Improved Method for Power Management and Voltage Control of PV Unit in DC Microgrid	S. Soori, S.A. Saremi Haari, A. Salemi, S. Khosroogaji	
P08129	Model Predictive Control of Classic Bidirectional DC-DC Converter for Battery Applications	A. Pirooz, R. Norouzi	
P01103	Family of Single-Switch-Soft Switching PWM Converters with Single Magnetic Core	M. Esteki, M. Mohammadi, E. Aidi, H. Farzanehdar	

Date:	Time:	Hall:	Session Code:
17 Feb. 2016	16:00 - 18:00	B	B2
Session Title: Fault Management in Power Electronics			
Session Chairs: Dr. Jannini, Dr. Halvaei			
Paper ID	Paper Title	Authors	
P07104	Developing a New Fault Location Topology for DC Microgrid Systems	R. Kheratollahi, E. Dehghanpour	
P07116	A Noninvasive On-line Failure Prediction Technique for Aluminum Electrolytic Capacitors in Photovoltaic Grid-connected Inverters	A. Sepah, M. Sinafarzadeh, S. Farhangi	
P07143	Fast and Simple Open-Circuit Fault Detection Method for Interleaved DC-DC Converters	M. Shahrabi, M.R. Zolghadri, S. Ouni	
P07137	Reliability Evaluation of Two-Stage Interleaved Boost Converter Interfacing PV Panels Based on Mode of Use	F. Hanzeh Apdham, M. Tarafdar, M. Abapour	
P07122	A Comparison between Buck and Boost Topologies as Module Integrated Converters To Mitigate Partial Shading Effects on PV Arrays	M.A. Abolmashari, R. Rezaei, R. Behravanvand, A. Yazdani Varjani	

Date:	Time:	Hall:	Session Code:
18 Feb. 2016	8:00 - 10:00	B	B3
Session Title: Multi-Level Converters			
Session Chairs: Dr. Babaei, Dr. Ghoreishi			
Paper ID	Paper Title	Authors	
P10101	Improved Equations of Switching Loss and Conduction Loss in SPWM Multilevel Inverters	A. Babaei, B. Karimi, A. Abrishamifard	
P08127	A New SVM-Based Voltage Balancing Method for Five-Level NPC Inverter	P. Qashqi, A.R. Shokhshelami, H. Vahedi, K. Al-Haddad	
P08130	A Novel Method for Real-Time Selective Harmonic Elimination in Five-Level Converter	A. Abrishamifard, M. Arasteh, F. Golshan	
P08131	Elimination of Low Order Harmonics in Nine-Level Cascaded H-bridge Converter	A. Abrishamifard, M. Arasteh, F. Golshan	
P07135	THD Minimization in Variable Input Cascaded H-Bridge Multi-Level Inverters via State Table	R. Esmailpour, B. Asaei, B. Farhangi	
P05103	Z-Source DG-Active Filter	S.A. Saremi Haari, S. Soori, A. Salemi, S. Khosroogaji	

Date:	Time:	Hall:	Session Code:
18 Feb. 2016	13:30 - 15:00	B	B4
Session Title: Converter Topologies and Design (2)			
Session Chairs: Dr. Mohammad, Dr. Vahedi, Dr. Halvaei			
Paper ID	Paper Title	Authors	
P08139	Space Vector PWM Method for Two-Phase Three-Leg Inverters	M. Mirzami, E. Baheti, M.B. Bama Sharifian	
P07115	Analysis of the Boost Converter under the DCM Condition to Reduce the MIC Voltage to Mitigate Partial Shading Effects in PV Arrays	R. Rezaei, M.A. Abolmashari, A. Yazdani Varjani, R. Behravanvand	
P08105	Virtual Flux Based Direct Power Control of a Three-Phase Rectifier Connected to an LCL Filter with Sensorless Active Damping	M. Maghamizadeh, S. Mianji Fathi	
P08104	Design Procedure and Experimental Validation of a 30 kVA DSP-Based PWM Rectifier	M. Pichan, A. Abrishamifard, A. Mirzababaei, M. Fazel	
P08108	A Modified SVM Switching Pattern for Z-Source Inverter	M. Abraradeh, H. Fathi kivi, H. Mahdi Kejbadi	

Date:	Time:	Hall:	Session Code:
17 Feb. 2016	13:30 - 15:30	C	C1
Session Title: Control of Power Electronic Converters			
Session Chairs: Dr. Ghandhari, Dr. Moghani			
Paper ID	Paper Title	Authors	
P08102	Signal Flow Graph Modeling and Disturbance Observer Based Output Voltage Regulation of an Interleaved Boost Converter	M. Abbas, A. Afifi, M. Alizadeh Pahlavani	
P08107	Dynamic Formation of Time-Dependent Duty Cycles for a Three-Phase Boost-Type DC-AC Converter Based on Averaging Model	B. Eikandari, J. Aridi High, J. Shojaei, M. Tavakoli Bina	
P08135	Robust Control of the DC-DC Cuk Converter in Discontinuous Conduction Mode	V. Hajiani, M. Salimi, J. Soliman	
P08138	Flattest-Based Control Method: A Review of its Applications to Power Systems	M. Shari-Hamedani, M. Zandi, R. Gavgas-Ghachani, B. Nahid-Mobarakeh	
P05106	An Adaptive Recursive Discrete Fourier Transform Technique for the Reference Current Generation of Single-Phase Shunt Active Power Filters	M.S. Karbafaroshan, M. Monfared	

Date:	Time:	Hall:	Session Code:
17 Feb. 2016	16:00 - 18:00	C	C2
Session Title: Converter Topologies and Design (1)			
Session Chairs: Dr. Moghani, Dr. Mohammad			
Paper ID	Paper Title	Authors	
P01106	A New Switched Boost Inverter Using Transformer Suitable for the Microgrid-Connected PV with High Boost Ability	M. Ghodsi, S. Masoudi Barakati	
P01109	A Family of Single Phase Converters with Reduced Number of Components and Leakage Current Elimination in Photovoltaic System	M. Adham Highlighpour, A. Nizami, A. Baghranfar	
P01120	AC Voltage Regulator Based on AC/AC Buck Converter	M.R. Hajimrad, H. Mokhtar	
P01133	A New Switched-Inductor Quasi-Z-Source Inverter	M. Ghodsi, S. Masoudi Barakati	
P01134	A New Basic Unit for Cascaded Multilevel Inverters with Reduced Number of Power Electronic Devices	E. Babaei, M.A. Hossainzadeh, M. Saadizadeh, C. Cecati	
P03110	A High Performance Bi-directional AC-DC Converter for Charge Equalization	N. Tashakor, E. Faraj, S. Khasan Hosseini, T. Ghanbari	
P07113	Energy Management of Dual-Source Propelled Electric Vehicle Using Fuzzy Controller Optimized via Genetic Algorithm	S. Khabazi Arani, A. Halvaei Nasar, A. Haji Zadeh	

Date:	Time:	Hall:	Session Code:
18 Feb. 2016	8:00 - 10:00	C	C3
Session Title: Wireless Power Transfer			
Session Chairs: Dr. Ghandhari, Dr. Motie			
Paper ID	Paper Title	Authors	
P11101	High Efficiency Wireless Power Transfer System Design for Circular Magnetic Structures	A. Ramezani, Sh. Farhang, H. Inan-Eini, B. Farhangi	
P11102	Minimum Weight Wireless Power Transfer Coil Design	A. Moradi, F. Tahami, A. Poorfakhraei	
P08114	Reduced Size Single-Phase PHEV Charger with Output Second-Order Voltage Harmonic Elimination Capability	H. Rezaei, H. Rastegar, M. Pichan	
P03109	Solar Charger System with LED Driver Using Capacitor-Less Multi-Port Converter	S.M. Dehghan, M. Alimoghaddam Avestani	
P05102	Zero-Voltage-Transition with Dual Resonant Tank for Bridgeless Boost PFC Rectifier with Low Current Stress	F. Yazdani, F. Tahami	
P07144	A New Hybrid Method of MPPT for Photovoltaic Systems Based on FLC and Three Point-Weight Methods	M. Bahrami, M. Zandi, R. Gavgas, B. Nahid-Mobarakeh, S. Poorfakhraei	

Date:	Time:	Hall:	Session Code:
18 Feb. 2016	13:30 - 15:00	C	C4
Session Title: Electric Machines and Sensors			
Session Chairs: Dr. Fathi, Dr. Vaezzadeh			
Paper ID	Paper Title	Authors	
E01105	Evaluation of Various Dynamic Modeling Methods of Permanent Magnet Flux Hysteresis Motors	A. Halvaei Nasar, A. Ghanbari	
E01115	Excitance Fault Detection of a Salient-Pole Synchronous Machine Using Modified Winding Function Approaches and Finite Element Method	A. Doulatabah, F. Nasari	
E01116	Sensitivity Analysis to the Design Parameters of an Induction Motor Using MEC	R. Haghghiyan, M.R. Marziani, A. Vahedi	
E05101	A New Software-Based Resolver to Digital Conversion Method	N. Noori, D. Arab Khaburi	
E05102	Diagnosis and Compensation of Amplitude Imbalance, Imperfect Quantization and Offset in Resolver Signals	N. Noori, D. Arab Khaburi	

Date:	Time:	Hall:	Session Code:
17 Feb. 2016	13:30 - 15:30	P	P1
Session Chair: Dr. Fazel, Dr. Arasteh			
Paper ID	Paper Title	Authors	
E01106	Design and Analysis of a Compact SRM and PM Relay for Autonomous Drilling Tools	O. Safarzadeh, E. Afjei, M. Nezamabadi, A. Moallajani	
E01109	Investigation of the Effect of Eccentricity in Flux Switching Permanent Magnet Machines	M. Ahmad Darmani, S.M. Mirzamani	
E01112	Force Calculation with Complete Modeling of Eccentricity in Single-Sided Linear Induction Motors	A. Zari-Baghalah, E. Fallah-Chahabi, S.H. Shahalam	
E01114	Comparing the Effect of Using New Hysteresis Material on the Performance of a Hysteresis Motor	M. Mohammadi Firoozee, A. Vahedi, M. Sanikiani	
E03105	Application of Multiband Hysteresis Modulation in Field Oriented Control Based IPMSM Drive Fed by Asymmetrical Multilevel Cascaded H-Bridge Inverter	A. Ejali, D. Arab Khaburi, J. Soleimani	
E03111	Implementation of Direct Torque Control Method on Brushless Doubly Fed Induction Machines in Unbalanced Situations	A. Ghaffarpour, F. Barati, H. Oraee	
E06101	Fixed-Point Computing with Variable Fraction Length for Motion Profile Generation	M. Dehghan, M. Mansournia	
E08105	Design and Simulation of Hybrid Electrical Energy Storage (HEES) for Eritran Urban Railway to Store Regenerative Braking Energy	H. Moghbeli, H. Hajisadeghi, M. Hanzandeh	
E08104	Analysis of Electromechanical Model of Traction System with Single Inverter Drive Induction Motor	Fooya Ghani, Mohammad Arasteh, H. Tavabi	
E08105	Electromagnetic Force Analysis in Linear Induction Motors: Considering End Effect	A. Shir	
E09101	Electro Pump Modeling Using Laboratory System Data	P. Samanipour, J. Poshan	
P07145	Stabilizing a Photovoltaic Plant Power Output by Employing an Auxiliary Power Source	N. Makhadmeh, L. Machado, R. Nicolson Nasar Koufy, R. Molina Valle	

Date:	Time:	Hall:	Session Code:
17 Feb. 2016	16:00 - 18:00	P	P2
Session Chair: Dr. Babaei, Dr. Ghoreishi			
Paper ID	Paper Title	Authors	
P01119	A High Step-Down DC-DC Converter with Low Switch Voltage Stress and Extremely Low Output Current Ripple	M. Esteki, M. Farzanehdar, E. Aidi, H. Farzanehdar	
P01124	New Asymmetrical Commutation Cell for Multilevel Inverters with Reduced Number of Components	M. Vrzbeh, M. Ramezani, E. Samadani	
P01130	A New Topology for Cascaded Multilevel Inverters with Reduced Number of Power Electronic Switches	E. Babaei, M. Saifzadeh, M.A. Hossainzadeh, C. Buccella	
P01136	Coupled Inductor Based Boost DC/DC Converter	S. Sakavati, E. Babaei	
P03103	Design and Implementing of a Novel Resonant Switched-Capacitor Converter for Improving Balancing Speed of Lithium-Ion Battery Cells	S. Goodarzi, R. Behravanvand, R. Rezaei, M.A. Abolmashari, M. Mohammad	
P03104	DC-DC Converter for Energy Loss Compensation and Maximum Frequency Limitation in Capacitive Deionization Systems	H. Mehraban-Nejad, B. Farhangi, Sh. Farhang, S. Vaez-Zadeh	
P05108	Parallel Operation of Series-Parallel Uninterruptible Power Supplies	M. Shahrabi, M. Mahamadian, A. Yazdani Varjani	
P07109	Space Vector PWM Algorithm for Three-Phase 16-Level Class B-2 Converter	O. Salari, M.J. Mojtahid, M. Tavakoli Bina	
P07138	A Comparative Study of Different Multilevel Converter Topologies for High Power Photovoltaic Applications	A. Deloovi, R. Kameva, A. Zabihnejad	
P07141	Sliding Mode Control of the Brushless Doubly Fed Induction Generator	F. Mousaffa, A. Ghaffarpour, A. Oraee, V. Behnamgozar	
SS1108	Improved Direct Torque Control of Induction Motor with the Model Predictive Solution	M.R. Nikzad, B. Asaei	
P07146	The Effect of Energy Efficiency Increase on a PV Plant with a Non-conventional Energy Storage System Income	A. Moallemi, E. Machado, R. Nicolson Nasar Koufy, F. Jose Pacheco Pujatti	

Date:	Time:	Hall:	Session Code:
18 Feb. 2016	8:00 - 10:00	P	P3
Session Chair: Dr. Yazdani			
Paper ID	Paper Title	Authors	
P03106	Implementation of the First Commercial Medium Power Active Front End Transformerless Uninterruptible Power Supply Made in Iran	M. Mohammad, A. Abrishamifard, M. Shahrabi, M. Arasteh, M. Fazel	
P03111	Control of Super-Capacitor SOC in a Railway Transit Network	E. Rahimi, A. Daifan, S. Alshami	
P05107	A Z-Source Railway Static Power Converter for Power Quality Improvement	H. Mahdini Roudsari, A. Jalilian, S. Jamali	
P07106	Three-Phase PFC Rectifier with High Efficiency and Low Cost for Small PM Synchronous Wind Generators	G. Rezaee, F. Tahami, H. Vahedi	
P07121	Single Stage DC-AC Boost Converter	A. Navahandi, M. Rooztaee, M. Azizi	
P07129	Control of Storage System in Series Collection Grid in Offshore Wind Farm for Limiting DC/DC Converter Overvoltage	D. H. Lee, B. Lee, J. Lee, C. Sandanaraj	
P07139	New Topology to Reduce Leakage Current in Three-Phase Transformerless Grid-Connected Photovoltaic Inverters	R. Rahimi, B. Farhangi, Sh. Farhang	
P07140	Efficiency Optimization and Power Management in a Stand-Alone Photovoltaic (PV) Water Pumping System	B. Mirshakou, S. Alizadeh, M. Mohammadian	
P08124	Design and Implementation of an FPGA-Based Real-Time Simulator for H-Bridge Converter	M.R. Rezaei Larjani, M.R. Zolghadri, M. Shahrabi	
P08120	A Novel Application of H ₂ Robust Controller for DC/AC Converter in Uninterruptible Power Supply	A. Tami, M. Saeidi, M. Mohammadian	

Date:	Time:	Hall:	Session Code:
18 Feb. 2016	13:30 - 15:00	P	P4
Session Chair: Dr. Zahra Nasir, Dr. Ghoreishi			
Paper ID	Paper Title	Authors	
P05109	Sliding Mode Control of DC-Link Capacitors Voltages of a NPC 4-Wire Shunt Active Power Filter with Selective Harmonic Extraction Method	M. Asadi, H. Ebrahimi, M.S. Masoumi, A. Jalilian	
P05111	Cuckoo Optimization Algorithm Neural Network Control for Shunt Active Power Filter to Improve Power Quality	S.T. Behrooz, F. Najafi, M. Bekrani	
P07101	Improving Battery Performance in Hybrid Energy Storage System of PMSG Wind Turbine by Variable Filter Cut off frequency	M. Elyi, J. Farhang, B. Asaei, B. Farhangi	
P07136	New switching strategy for single-phase multilevel quasi-Z-source inverter	M. Kerdani, M. Shahrabi, H. Toodeji	
P07112	A New DPC Method For Single VSC Based DFIG Under Unbalanced Grid Voltage Condition	A. Izano, S. Asghar Gholamian, M. Verji Koziam	
P07124	Output Power Smoothing of PMSG-Based Wind Energy Conversion System Equipped with Matrix Converter	K. Mhedhrezian, K. Abbaszadeh	
P07131	Analysis and Control of Single-Phase Converters for Integration of Small-Scaled Renewable Energy Sources into the Power Grid	M. Mehrasa, M. Kezazehjani, R. Poursaeedi, J. P. S. Catalao, S. Zabihi	
P07133	Comparison of Single Loop Based Control Strategies for a Grid Connected Inverter in a Photovoltaic System	M.H. Mahlooji, H.R. Mohammadi, M. Rahimi	
P07142	Increasing the Battery Life of the PMSG Wind Turbine by Improving Power Division of the Hybrid Energy Storage System	M. Elyi, B. Asaei, R. Esmailpour	
P08137	Indirect Voltage Regulation of Double Input V-Source DC-DC Converter Based on Sliding Mode Control	S. Ahmadradeh, G.R. Akbari Karkadeh	
P12102	A New Pulsed Power Generator Topology for Corona Discharge	M. Kebriaei, A. Halvaei-Nasar, A. Kesabi	
SS1107	One Step Model Predictive Control of Five Level ANPC Permanent Magnet Motor Drive	M. Niliyan, M. Mohammadian, A. Yazdani Varjani	