

IEEE PEDES – 2006
12-15 December, 2006 New Delhi, India

Conference Program

12 December, 2006 (Tuesday)
Tutorial Sessions at Electrical Engineering Department, IIT Delhi
13 - 15 December, 2006 (Wednesday, Thursday, Friday)
Conference Sessions at Marriott WelcomHotel, New Delhi

13 December, 2006 (Wednesday)		
8: 00 hrs.	Registration	
9:00 to 9:45	Inaugural Session	
9:45 to 10:30	Keynote Talk – I “Creating a Small Power Grid” Deepak Divan Professor, Intelligent Power Infrastructure Consortium Director, Electric Power School of Electrical and Computer Engineering Georgia Institute of Technology	
10:30 to 11:00	Tea	
11:00 to 13:00	Session - I	
2A - (Traction & Electric Vehicle Drives) & 2C -I (Control of Electric Drives-I)		11:00 to 13:00
		13 December, 2006
2A-02	Dual-Source Powered Vehicle Drive with Synchronised PWM	V. Oleschuk, R. Bojoi, F.Proffumo and A. Tenconi.
2A-04	A Dynamic Modeling and Simulation of an Induction Motor with Adaptive Backstepping Design of an Input-Output Feedback Linearization Controller in Series Hybrid Electric Vehicle	A.Farrokh Payam, M. Jalalifar and B. Mirzaeian
2C-01	DSP Based Implementation of Vector Controlled Induction Motor Drive Using Fuzzy Pre-Compensated Proportional Integral Speed Controllers	Bhim Singh and S. Ghatak Choudhuri
2C-06	Application of Direct Torque Control Technique to Induction Motor Drive Control and Direct Torque Controlled Induction Motor Drive with Reduced Torque Ripple	Borra Suresh Kumar, R. A. Gupta and Rajesh Kumar
2C-09	Optimal Controller for High Frequency AC-Link Converter Induction Motor Drive System	R. A Gupta, A. K Wadhwani and R. R. Joshi

2C-10	An Adaptive Backstepping Controller for Doubly-Fed Induction Machine Drives	A. Farrokh Payam
2C-11	Application Problem of PWM AC Drives Due to Long Cable Length and High dv/dt	B. Basavarajal and D. V. S. S. Siva Sarma
2C-12	MRAS-Based Sensorless Control of a Vector Controlled Five-Phase Synchronous Reluctance Motor Drive	M. Rizwan Khan and Atif Iqbal
3A-I (AC/DC & AC/AC Converters-I)		11:00 to 13:00
		13 December, 2006
3A-02	Parallel Power Flow AC/DC Converter with High Input Power Factor and Tight Output Voltage Regulation for Universal Voltage Application	Aman Kumar Jha, K. Hari Babu and B. M. Karan
3A-04	A Generalized Space Vector Modulation with Simple Control Technique for Balancing DC-Bus Capacitor Voltages of a Three-Phase Neutral-Point Clamped Converter	Abdul Hamid Bhat and Pramod Agarwal
3A-05	Implementation and analysis of Five level Inverter with SVPWM Algorithm	K. S. Pratap, Rajesh Kumar and R. A. Gupta
3A-06	A Novel Load Compensator (LSTATCOM) for a 12-Pulse Diode Converter	Maryclaire Peterson and Brij N. Singh
3A-09	Resonant Operated Buck Converter with Reduced Device Switching Stress with Power Factor Improvement	Vinayak N. Shet
3A-10	A High Power Factor Forward Fly-Back Converter With Input Current Wave Shaping.	Vinayak N. Shet
3A-11	A Fuzzy Logic Controller for Direct Power Control of PWM Rectifier with SVM	Roghieh Skandari, Abdolreza Rahmati and Adib Abrishamifar
3A-13	Evaluation of DSP Based Matrix Converter Operation under Various Abnormal Conditions with Practicality	Vinod Kumar and R. R. Joshi
4B-I (Power Quality-I)		11:00 to 13:00
		13 December, 2006
4B-01	Automatic Classification of Power Quality Events Using Multi Wavelets	Surender Dahiya, D. K. Jain, Manish Kumar, Ashok Kumar and Rajiv Kapoor
4B-02	A Novel 3-phase Active Power Filter Based Rectifier Topology	Han Yang, Muhammad Mansoor Khan and Chen Chen
4B-03	Power Quality Monitoring at the Industrial, Commercial and Educational Centers of Mazandaran Province and Presenting the Related Solution	Mosa marzband, and Abdolreza haikholeslami
4B-04	A New Power Quality Enhancement Method for Two-Phase Loads	H. Hojabri and H. Mokhtari
4B-06	Three-Level STATCOM Based Power Quality Solution for a 4 MW Induction Furnace	A. K. Unnikrishnan, A. K., Aby Joseph and T. G. Subhash Joshi
4B-07	Analysis and Simulation of a Composite Observer for Harmonics Extraction	K. Selvajyothi and P. A. Janakkiraman

4B-08	Third Harmonic Current Injection for Power Quality Improvement in Rectifier Loads	Bhim Singh, Vipin Garg, and G. Bhuvaneshwari
4B-37	Three Phase Version of Solid-State Fault Current Limiter for Distribution Systems	V. K. Sood and Shahabur Alam
5A-I (Non-Conventional, Distributed & Co-Generation-I)		11:00 to 13:00
		13 December, 2006
5A-01	Capacitive Energy Storage and AGC of a Multiunit Multiarea Power System: Some Observations	Rajesh Joseph Abraham, D. Das and Amit Patra
5A-02	Power Flow Control of a Solid Oxide Fuel Cell for Grid Connected Operation	S. Mishra, A. N. Jha, and Ankur Goel
5A-07	An Universal Interconnection System to Connect Distributed Generation to the Grid	Vinod John, Eric Bendict, and Shazreen Meor Daniel
5A-09	Transient Fault Response of Grid Connected Wind Electric Generators	P. Vinodh Kumar, K. S. Meera and Sasi K. Kottayil
5A-10	Black Start with DFIG Based Distributed Generation After Major Emergencies	M. Aktarujjaman, M. A. Kashem, M. Negnevitsky and G. Ledwich
5A-12	Fuzzy Logic Based Control of Wind Turbine Driven Squirrel Cage Induction Generator Connected to Grid	CH. Siva Kumar, A.V. R. S. Sarma and P.V.N. Prasad
5A-14	Novel Direct Flux Controlled Voltage Controller for Stand-Alone Induction Generator with SVPWM Voltage Source Inverter	G. V. Jayaramaiah and B. G. Fernandes
5A-18	Speed Sensorless Direct Power Control of a Matrix Converter Fed Induction Generator for Variable Speed Wind Turbines	T. Satish, K. K. Mohapatra and Ned Mohan
13:00 to 14:00 Lunch		
14:00 to 15:45 Session- 2		
1C – (Induction, Synchronous and DC Motors) & 2B – (Industrial Drives)		14:00 to 15:45
		13 December, 2006
1C-01	Transient Analysis of a Single Phase Self-Excited Induction Generator Using a 3-Phase Machine Feeding Dynamic Load	S. N. Mahato, M. P. Sharma and S. P. Singh
1C-02	Performance Analysis of a Three-Phase Squirrel-Cage Induction Motor Under Unbalanced Sinusoidal and Balanced Non-Sinusoidal Supply Voltages	Thanga Raj Chelliah, Pramod Agarwal and S. P. Srivastava
1C-04	Efficiency Optimization of Induction Motor Using Fuzzy Logic Controller	L. Ramesh, A. K. Saha, S. Chowdhury, S. P. Chowdhury and Y. H. Song
1C-05	Design of an Axial-Flux Induction Motor for Electric Vehicle Applications	Satishbabu Bhogineni and K. R. Rajagopal
2B-02	Dynamic Modeling of Electromechanical Vibrations in Induction Motor Drives Including the Elasticity of the Mechanical Transmission System	Nysret Avdiu and Shaban Buza
2B-03	Prototyping of a Precision Mechanism Using Hybrid-Driven Piezoelectric Actuator	Fu-Shin Lee, Yyung-Tsung Lei, Sheng-Feng Chiang, Jyun-Jhong Jhang, Shao-Chun Tseng and Po-Jia Chen

2B-04	LCI Based Dual Channel Variable Frequency Drives Using Brushless Synchronous Motors for Boiler ID Fan Draft Control Applications	M.V. Aware and Arvind Gupta
6A-I (Numerical Methods for Performance Calculation of Electrical Machines, Drives and Power Systems –I)		14:00 to 15:45
		13 December, 2006
6A-02	Fast and Effective Algorithm for Economic Dispatch with Prohibited Operating Zones	T. Adhinarayanan and M. Sydulu
6A-03	Computation and Analysis of End region EM force for Electrical Rotating Machines	Manpreet.S.Manna Sanjay Marwaha and Anupama Marwaha
6A-06	Optimal Reactive Power Dispatch Based on Voltage Stability Criteria in a Large Power System with AC-DC and FACTS Devices	D. Thukaram ,C. Vyjayanthi and G. Yesuratnam
6A-07	Location of Unified Power Flow Controller and its Parameters Setting for Congestion Management in Pool Market Model Using Genetic Algorithm	Hassan Barati, M.Ehsan and M.Fotuhi-firuzabad
6A-08	Security Enhancement for Optimal Power Flow Using Genetic Algorithm	N. B. Muthuselvan, P. Somasundaram and Subhransu Sekhar Dash
6A-10	Congestion Management in Nodal Pricing with Genetic Algorithm	S. M. H. Nabavi, S. H. Jadid, M. A. S. Masoum and A. Kazemi
6A-11	Coupled Magneto-Mechanical Field Consumptions	Amogh Kank, G.B.Kumbhar and S.V.Kulkarni
6B-I (Testing and Condition Monitoring of Electrical Machines, Drives and Power Systems –I)		14:00 to 15:45
		13 December, 2006
6B-01	Frequency Linked Pricing as an Instrument for Frequency Regulation Market.	K. V. V. Reddy and Ashwani Kumar
6B-02	Detection of Arcing in Low Voltage Distribution Systems	Asit Kumar Mishra, Aurobinda Routray and Ashok K. Pradhan
6B-04	Induction Machine Fault Identification Using Particle Swarm Algorithms	S. Ethni, P. P. Acarnley, B. Zahawi and D. Giaouris
6B-05	A Novel Technique for Identification and Condition Monitoring of Nonlinear Loads in Power Systems	Phil Gilreath, Maryclaire Peterson and Brij N. Singh
6B-06	Real Time Identification of Distributed Bearing Faults in Induction Motor	Rajesh Patel, S. P.Gupta, and Vinod Kumar.
6B-08	Integration of IEDs Using Legacy and IEC61859 Protocols	Anupama Prakash,Mini Shaji Thomas and Ashutosh Gautam
6B-09	Ethernet Enabled Fast and Reliable Monitoring, Protection and Control of Electric Power Substation.	Mini. S. Thomas and Iqbal Ali
7B– (Energy Policies & Sustainable Energy) & 9B-I (Interdisciplinary Areas- I)		14:00 to 15:45
		13 December, 2006
7B-01	To Survey Cycle of Linear Parabolic Solar Power Plant Design and Control of Collectors Efficiency There to Appertaining	Houtan Moaveni

7B-03	Modeling the Strategic Bidding in Competitive Electricity Markets Based on Fuzzy Logic	M. Mohammadi
7B-04	Power Sector Reforms in India	Harbans L. Bajaj
9B-01	Application and Implementation of the Preisach Theory in Modeling Magnetic Core Nonlinearities	A. Rezaei-Zare, M Sanaye-Pasand, H. Mohseni, Sh. Farhangi, and R. Iravani
9B-02	Modeling and Control of Diaphragm Type Pump Using a DSP	Valeri Kroumov, Keishi Shibayama, Toshiro Noritsugu, and Daisuke Sasaki
9B-04	Modeling and Simulation of Electromagnetic Conducted Emission Due to Power Electronic Converters	A. Farhadi and A. Jalilian
9B-06	Evaluation of Operational Characteristics of Electronic Ballasts for Metal Halide- HID Lamps	Ahteshamul Haque and M. S. Jamil Asghar
15:45 to 16:00 Tea		
16:00 to 17:45 Session - 3		
1D-I – (Brushless Permanent Magnet and Switched Reluctance Motors)		16:00 to 17:45
		13 December, 2006
1D-01	Observer Based Position and Speed Estimation of Interior Permanent Magnet Motor	Bhim Singh, Prerna Gaur, and A. P. Mittal
1D-02	Genetic Algorithm based Optimal Design of a Switching Circuit Parameters for Switched Reluctance Motor Drive	Behzad Mirzaeian Dehkordi, and Payman Moallem
1D-04	Intelligent Tuned PID Controllers for PMSM Drive – A Critical Analysis	Rajesh Kumar, R. A Gupta and Bhim Singh
1D-05	Reduction of Cogging Torque in PMBLDC Motor with Reduced Stator Tooth Width and Bifurcated Surface Area Using Finite Element Analysis	R. Somanatham, P. V. N. Prasad and A. D. Rajkumar
1D-09	A Novel Phasor Diagram of Interior PMSM Based on Spiral Vector Theory	Bishnu P. Muni
1D-10	A Novel Strategy of Torque and Flux Control for Switched Reluctance Motor Drive	R. Jayabharath, P. Veena and M. Rajaram
1D-11	Remedial Strategies for the Minimization of Cogging Torque in Permanent Magnet Brushless DC Motor	M. H. Ravichandran, VT sadasivan Achari, and Robert Devasahayam
3B-I (PWM & DC/DC converters-I)		16:00 to 17:45
		13 December, 2006
3B-01	PWM SHE Inverter Switching Algorithm Derivation	Ali I. Maswood
3B-02	New Fuzzy Logic Controller for a Buck Converter	D. Seshachalam, R. K. Tripathi, D. Chandra and Anil Kumar
3B-03	Development of Conventional Control of Parallel Loaded Resonant Converter Simulation and Experimental Evolution	T. S. Sivakumaran and S. P. Natarajan
3B-05	A Novel Technique to Reduce Switching Losses In Synchronous Buck Converter	A.K.Panda, and Aroul.K

3B-06	Transformer Core Unbalancing Issue in a Full-Bridge DC-DC Converter with Current Doubler Rectifier	B. Gusev, V. Meleshin and D. Ovchinnikov
3B-07	Computer Analysis of Fault Tolerant Multilevel DC/DC Converters	Khalid A. Ambusaidi, Volker Pickert and Bashar Zahawi
3B-08	An Auxiliary Switch Commutated ZVS Multiphase Boost Converter with Coupled Inductor	R. Mirzei and V. Ramanarayanan
3C-I (Topology & Control of Power Electronic Converters-I)		16:00 to 17:45
		13 December, 2006
3C-02	High Frequency SMPS Based Inverter with Improved Power Factor.	M. G. Wani and V. K. Sharma
3C-03	Comparison of Mode Switched Controllers for a Pseudo Continuous Current Mode Boost Converter	A. Sreekumar and Vivek Agarwal
3C-04	A New Control Method to Improve the Output Voltage Regulation of DC-DC Converters Based on Virtual Inductor and Capacitor	Pekik Argo Dahono
3C-05	Multi Level Inverter for Induction Motor drive	K. Chandra sekhar and G. Tulasi Ram Das
3C-06	A Unified Model for Resonant Switch Commutated DC-DC converter	Lakshminarasamma, and Ramanarayanan
3C-07	A Novel Pulse Power Supply Operating at High Input Power Factor	Vishnu.K.Sharma, Kishore Chatterjee and Vivek agarwal
3C-08	A Simple General Space Vector PWM Control of Cascaded H-Bridge Seven Level Inverter	Karthick Chandra Jana, and Sujit Biswas
5A-II (Non-Conventional, Distributed & Co-Generation-II)		16:00 to 17:45
		13 December, 2006
5A-19	Stochastic Model for Optimal Selection of DDGs by Monte Carlo Simulation	N. Vaitheeswaran and R. Balasubramanian
5A-20	Capacitive Self Excitation in a Six-Phase Induction Generator for Small Hydro Power - An Experimental Investigation	G. K. Singh, K. B. Yadav and R. P. Saini
5A-21	Grid Power Quality with Variable Speed Wind Energy Conversion System	S.W. Mohod and M.V. Aware
5A-23	Investigations on Combined Operation of Industrial Distribution System and Utility in Distributed Generation Environment	K. Manjunatha Sharma, K. P. Vittal and T. K. Nagaraja Rao
5A-24	Rotor Speed Stability Analysis of Constant Speed Wind Turbine Generators	M. G. Kanabar, C. V. Dobariya and S. A. Khaparde
5A-26	Performance Evaluation of Indian Electric Power Utilities based on Data Envelopment Analysis	Tripta Thakur
5A-30	PSO-Based Multidisciplinary Design of Hybrid Power Generation Systems with Statistical Models of Wind Speed and Solar Insolation	Lingfeng Wang and Chanan Singh

14 December, 2006 (Thursday)

9:00 to 9:45 **Keynote Talk – II**
“Convergence of Technologies in Power Electronics and Power Systems”
M. A. Pai
Professor Emeritus
Department of Electrical and Computer Engineering
University of Illinois at Urbana-Champaign

9:45 to 10:15 **Tea**

10:15 to 11:30 **Session - 4**

1B-I (Control of Electrical Machines-I)		10:15 to 11:30
		14 December, 2006
1B-01	Nonlinear Sliding-Mode Controller for Sensorless Speed Control of DC Servo Motor Using Adaptive Backstepping Observer	B. Farrokh Payam and C. B. Mirzaeian Dehkordi
1B-05	Robust Speed Sensorless Control of Doubly-Fed Induction Machine Based on Input-Output Feedback Linearization Control Using a Sliding-Mode Observer	A. Farrokh Payam
1B-08	Adaline based Control of Solid State Voltage Regulator for Isolated Asynchronous Generators	Bhim Singh and Gaurav Kumar Kasal
1B-10	Development of a Prototype Controller Portable Telemetry Tracking System for Defence Applications.	Parveen Kumar, Gautam Sadhukhan and A. K. Pradhan
1B-11	Design and Development of a High Performance Electronics Starter for Single-Phase Induction Motor	T. P. Shenoy and J. S. Nirody
1D-II (Brushless Permanent Magnet and Switched Reluctance Motors-II)		10:15 to 11:30
		14 December, 2006
1D-14	Fuzzy Pre-Compensated PI Controller for PMBLDC Motor Drive	Mukesh Kumar, Bhim Singh, and B. P. Singh
1D-15	A Simplified Design Methodology of Switched Reluctance Motor Using Analytical and Finite Element Methods	M. H. Ravichandran, V. T. Sadasivan Achari, C. Joseph and Robert Devasahayam
1D-16	Computer Aided Design of Permanent Magnet Brushless DC Motor for hybrid Electric Vehicle Applications	Bhim Singh and Devendra Goyal
1D-17	Design and Analysis of a 3KVA, 28 V Permanent Magnet Brushless Alternator for Light Combat Aircraft	Bhim Singh, and J. Ravi
1D-18	Estimation of Core Loss in a Switched Reluctance Motor Based on Actual Flux Variations	N. K. Sheth and K. R. Rajagopal

3A-II (AC/DC & AC/AC Converters-II)		10:15 to 11:30
		14 December, 2006
3A-14	Improvement of an Input Waveform of a Neutral Point Type Step-Down Converter	Yoshito Kato, Nabil M. Hidayat, Masaaki Nakamura and N. Takahashi
3A-15	Development of Neutral-Point Type Converter and Application to Electronic Ballast	Nobuo Takahashi, Shun-ichi Adachi, Yoshito Kato, Ichiro Yokozeke, Nabil M. Hidayat, and Masaaki Nakamura,
3A-17	Hysteresis-Band Current Control of a Four Quadrant AC-DC giving IEEE 519 Compliant Performance at any Power Factors	A. N.Arvidan, and V. K. Sharma
3A-18	Multiphase Inverter Topology and its Modulation Technique for Optimal Harmonic Output	Ravindra Kumar Singh
3A-20	A PWM Current Source Rectifier with Leading Power Factor	P. Sanjeevi Kumar, B. Geethalakshmi and P. Dananjayan
4A-I (Active Filters and VAR Compensation Schemes-I)		10:15 to 11:30
		14 December, 2006
4A-01	A Study on Design and Dynamics of Voltage Source Inverter in Current Control Mode to Compensate Unbalanced and Non-linear Loads	Mahesh K. Mishra and K. Karthikeyan
4A-02	Optimal Voltage and Reactive Power Control Based on Multi-Objective Genetic Algorithm	Behzad Mirzaeian Dehkordi
4A-03	Model Validation Studies in Obtaining Q-V Characteristics of P-Q Loads in Respect of Reactive Power Management and Voltage Stability	G. Govinda Rao and .V.S. Ramachandra Murthy
4A-04	Simulation Study of a Shunt Active Power Filter Using Nonlinear Least Squares Harmonic Extraction Technique	R. Chudamani, K. Vasudevan and C. S. Ramalingam
4A-05	Comparison of Synchronous Detection and $I \cos \phi$ Shunt Active Filtering Algorithms	G. Bhuvaneswari, Manjula G. Nair and Satish Kumar Reddy
11:30 to 11:45 Tea		
11:45 to 13:00 Session – 5		
1A-I (Analysis and Design of Electrical Machines-I)		11:45 to 13:00
		14 December, 2006
1A-01	A Program for Harmonic Modeling of Distribution Network Transformers and Determination of Loss in the Transformers and the amount of Decrease of life	Mosa Marzband and Abdolreza Shaikholeslami
1A-02	Novel Integral Cycle Voltage Controller for Self Excited Induction Generators	S. S. Murthy, A. J. Pinto Pius and A. R. Beig
1A-03	EMI Modeling and Simulation of High Voltage Planar Transformer	Bai Feng, Niu Zhong-Xia, Zhou Dong-Fang and Shi Yu-Jie
1A-04	Graphical Estimation of Optimum Weights of Iron and Copper of a Transformer	C. Eswarlal, V. Palanisamy, M.Y. Sanavullah and M. Gopila
1A-05	Nonlinear Behavior of Self-Excited Induction Generator Feeding an Inductive Load	D. D. Ma, B. Zahawi, D. Giaouris, S. Banerjee and V. Pickert

3D-I (Simulation of Power Electronics Converters and Drives-I)		11:45 to 13:00
		14 December, 2006
3D-01	MATLAB Simulation of Current Control of PMSM Using Single Sensor Technology	B. Saritha and P. A. Janakiraman
3D-03	Novel Simulation Approach Based on Behavioral Model of 12-Pulse Converter	Vinod John and Amit Sanglikar
3D-05	Simulation of PMSM VSI Drive for Determination of the Size Limits of the DC-Link Capacitor of Aircraft Control Surface Actuator Drives	M. Khatre and Alan G. Jack
3D-06	A Novel Soft Switched Improved Power Quality Converter Fed DC Motor Drive	M. B. Daigavane, Z. J. Khan and H. M. Suryawanshi
3D-07	Modeling and Simulation of Three-Phase Carrier-Based PWM Multi-Level Inverter Using Switching Functions	Ghasem Hosseini Aghdam and Hamid Fathi
4B-II (Power Quality-II)		11:45 to 13:00
		14 December, 2006
4B-09	Polygon Connected 15-Phase AC-DC Converter for Power Quality Improvement	Bhim Singh, Vipin Garg, and G. Bhuvaneshwari
4B-10	Power Quality Analysis of a Granite Factory	S. Hasani, F. Donyavi, M. Masoudi and H. Mokhtari
4B-13	Minimization of Losses in Radial Distribution System by Using HVDS	K. Amaresh, S. Sivanagaraju and V. Sankar
4B-14	A SVPWM switched DSTATCOM for Power factor and Voltage Sag Compensation	Bishnu P. Muni, S. Eswar Rao and J. V R Vithal
4B-16	Unified Constant Frequency Integration Control of Universal Power Quality Conditioner	K. Vadirajacharya, Pramod Agarwal and H. O. Gupta
5B - (UPS & Battery Energy Storage Systems) & 8A – (Power Generation)		11:45 to 13:00
		14 December, 2006
5B-01	Integrating Redox Flow Battery System with a Wind-Diesel Power System	Shameem Ahmad Loan and Mairaj-ud-din Mufti
5B-02	Hydrocarbon Fuel Based Micro Battery Power System	Surendran Devadoss, Theo Kangsanant and Ian Bates
5B-03	Analysis Design and Development of Single Switch Forward Buck AC-DC Converter for Low Power Battery Charging Application	Bhim Singh and Ganesh Dutt Chaturvedi
8A-01	A New Structure for Electricity Market Scheduling	S. Soleymani, A. M. Ranjbar and A.R. Shirani
8A-04	Modeling of STATCOM Based Voltage Regulator for Self-Excited Induction Generator feeding Dynamic Loads	Bhim Singh, S. S. Murthy, and Sushma Gupta
13:00 to 14:00 Lunch		

14:00 to 15:30 Session- 6		
1E – (Small and Special Electrical Machines) & 1F – (New/Novel Motor Topologies)		14:00 to 15:30
		14 December, 2006
1E-01	Comparative study of Laminated Core Permanent Magnet Hybrid Stepping Motor with soft Magnetic Composite Core Claw Pole Motor	E. V. Chandra sekhar Rao, P. V. N. Prasad, and G. Ravindranath
1E-02	Speed and Position Tracking of Two-Phase Servo Motor by Changing the Phase Difference Angle	H. M. El Zoghby, S. M. Sharaf and M. A. Ghazy
1F-01	A Doubly Fed Induction Motor as High Torque Low Speed Drive	Mukhtar Ahmad, M. Rizwan Khan and Atif Iqbal
1F-02	Design and Analysis of Dual-Rotor Radial Flux Permanent Magnet Generator For Direct-Coupled Stand-Alone Wind energy Systems	P. Sivachandran and P. Venkatesh
1F-04	Performance of Doubly Salient Permanent Magnet Motors for Parallel and Tapped Rotor Poles	N. K. Sheth, and K. R. Rajagopal
1F-06	Improved Torque Profile of a Doubly Salient Permanent Magnet Motor Using Skewed Rotor Teeth and Sinusoidal Excitation	N. K. Sheth, and K. R. Rajagopal
3C-II (Topology & Control of Power Electronic Converters-II)		14:00 to 15:30
		14 December, 2006
3C-09	System Identification and Controller Tuning Rule for DC-DC Converter Using Ripple Voltage Waveform	Lavanya.K, Umamaheswari. B and R. C. Panda
3C-10	Space Vector Modulation with DC-link voltage balancing control for Three level Inverter	Bhalodi Kalpesh, and Pramod Agarwal
3C-12	Simulation Investigations on Different Multilevel Inverter Control Techniques	P.K.Chaturvedi, Shailendra K.Jain Pramod Agarwal and P. K. Modi
3C-14	Adaptive Hysteresis Control of 3 rd Order Buck Converter	M. Veerachary and Deepen sharma
3C-15	Observer Based Current Control of Single-Phase Inverter in DQ Rotating Frame	B.Saritha and P. A. Janakiraman
3C-16	New Three-Level Voltage Source Converter with Different 25 Space Vector Voltage Vectors	Mohamed.H.Saied, M.Z. Mostafa, T. M. Abdel-Moneim and H. A. Yousef
4A-II (Active Filters and VAR Compensation Schemes-II)		14:00 to 15:30
		14 December, 2006
4A-06	Nonlinear Control Method for SSSC to Improve Power System Stability	Majid Poshtan, Brij N. Singh, and Parviz Rastgoufard
4A-07	An Improved Power Flow Analysis Technique with STATCOM.	Annapurna Bhargava, Vinay Pant and Biswarup Das
4A-10	Design of a Current Hybrid Filter Including Active and Variable Passive Filters	H. Dalvand

4A-11	Grid Connected Photovoltaic Interface with VAR Compensation and Active Filtering Functions	Aslain Ovono Zue and Ambrish Chandra
4A-12	Design and Implementation of a Current Controlled Parallel Hybrid Power Filter	Bhim Singh and Vishal Verma
4A-13	Active Power Filter Control in Three-Phase Four-Wire Systems Using Space Vector Modulation	H. Mokhtari and M. Rahimi
5A-III (Non-Conventional, Distributed & Co-Generation-III)		14:00 to 15:30
		14 December, 2006
5A-27	Modeling of Hybrid Energy System for off-Grid Electrification of Clusters of Villages	Ajai Gupta, R. P. Saini and M. P. Sharma
5A-33	Analysis and Development of a Proto-type Hybrid Fuel Cell Distributed Generation Power System for Stand-alone Applications	Mohammad Saad Alam and David W. Gao
5A-35	SVPWM Implementation in dSPACE for Generalized Impedance Controller Used for Self Excited Induction Generator	B. Venktesa Perumal and J. K. Chatterjee
5A-36	Trajectory Sensitivity Analysis in Distributed Generation Systems	Dheeman Chatterjee, Arindam Ghosh and M. A. Pai
5A-37	Steady State Performance of a Stand-Alone Variable Speed Constant Frequency Generation System Using a New Build Up Algorithm	Isha T.B. and D. Kastha
5A-39	Control Strategy of Distributed Generation for Voltage Support in Distribution Systems	An D. T. Le, M. A. Kashem, M. Negnevitsky and G. Ledwich
15:30 to 15:45 Tea		
15:45 to 17:30 Session – 7		
4B-III (Power Quality-III)		15:45 to 17:30
		14 December, 2006
4B-17	Investigation of Sensitivity Analysis of AC Drive to Short Interruption and Voltage Sag and Study of Effect of Unbalanced Voltage on Harmonic Current Distortion of AC Drive	T. N. Date and B. E. Kushare
4B-18	Application of a Boundary Model to Assess Power Quality Cost Function	J. Ahmadian and A. Jalilian
4B-19	Active Power Filter Solution Without PLL for Fluctuating Industrial Load	S. Elangovan
4B-24	A Novel Digital Signal Processing Algorithm for On-line Assessment of Power System Frequency	Arghya Sarkar and S. Sengupta
4B-28	An Evolutionary Algorithm Approach to Estimate the Parameters of Power Quality Signals	V. Ravikumar Pandi and B. K. Panigrahi
4B-29	A 36-Pulse AC-DC Converter for line Current Harmonic Reduction	Bhim Singh and Sanjay Gairola
4B-30	A Unified Analysis of CCM Boost PFC for Various Current Control Strategies	Ranjan K. Gupta, Hariharan Krishnaswami and Ned Mohan

5C-I (Application of Neural Networks and fuzzy Logic Systems-I)		15:45 to 17:30
		14 December, 2006
5C-06	Improved Harmonic Profile with Novel Neural Network Based Switching Strategy for HFAC Link Converter Cage Drive System	R. A. Gupta, A.K.Wadhvani, and R.R. Joshi
5C-10	A Novel Approach for Eco Friendly and Economic Power Dispatch Using MATLAB	D.P. Kothari, and K.P. Singh Parmar
5C-14	Real Time Based PI Like Fuzzy Controller for a DC Motor	S. G. Kadwane, Swapnil Gupta, B. M. Karan, T. Ghose and Amit Kumar
5C-18	Neural Network Based DSTATCOM Controller for Three-Phase Three-Wire System	Bhim Singh, A. Adya, A. P. Mittal and J. R. P. Gupta
5C-19	Analysis of the Influence of Control Parameters on Wind Farm Output: A Sensitivity Analysis Using ANN Modeling	E. Fernandez and M. Carolin Mabel
5C-20	An Advanced Control Scheme for Micro Hydro Power Plants	M. Hanmandlu, Himani Goyal and D. P. Kothari
5C-23	Application of Fuzzy Logic PSS to Enhance Transient Stability in Large Power Systems	P. V. Etingov and N. I. Voropai
6A-II (Numerical Methods for Performance Calculation of Electrical Machines, Drives and Power Systems –II)		15:45 to 17:30
		14 December, 2006
6A-13	Optimizing Voltage Stability Limit and Real Power Loss of a Large Power System Using Bacteria Foraging	Tripathy, and S. Misra
6A-16	Application of Power Flow Sensitivity Analysis and PTDF for Determination of ATC	N. D. Ghawghawe and K.L. Thakre
6A-19	Application of Tabu-Search Algorithm for Network Reconfiguration in Radial Distribution System	T. Thakur, and Jaswanti
6A-21	Comparative Studies of Transient and Steady State Analysis for a Typical 765kV/400kV Transmission System in Indian Power System.	D. Thukaram, H. P. Knincha and P. Shyamala
6A-22	Application of Evolutionary Programming to Optimal Power Dispatch with Line Flow Constraints	C. Nallasivan, Joseph Henry and S. Ravichandran
6A-24	A Finite Element Modeling and Simulation Method for Time-Varying Field-Circuit Problems	M. Nabi
6A-25	A Wavelet Based Numerical Technique for Electromagnetic Field Analysis	K. Kaushik and S.V. Kulkarni
6B-II (Testing and Condition Monitoring of Electrical machines, Drives and Power Systems-II) & 7A- (Energy Conservation)		15:45 to 17:30
		14 December, 2006
6B-11	Expert System for Power Transformer Condition Monitoring and Diagnosis	M. Ahfaz Khan, A. K. Sharma and Rakesh Saxena

6B-12	Evaluation of Leakage Current Measurement for Site Pollution Severity Assessment	S. M. H. Nabavi, A. Gholami, A. Kazemi and M. A. S. Masoum
6B-14	Vibration Signal Analysis Using Wavelet Transform for Isolation and Identification of Electrical Faults in Diesel Generator	B. Prabhakar, P. Jaiswal, G. Bhamore and Y. Pal.
6B-16	Implementation of IEEE Standard 1459-2000 Applied to Digital Measurement Instruments.	Wagner da Gama Melo
6B-19	Detection of Bearing Failure in Rotating Machine Using Adaptive Neuro-Fuzzy Inference System	Sulochana Wadhwani, A.K. Wadhwani S. P. Gupta and Vinod Kumar
6B-22	A Pattern Recognition Approach to Discriminate Inrush and Internal Faults of Transformer	S. R. Samantaray, B. K. Panigrahi, P. K. Dash and G. Panda
7A-01	Stepwise Restoration of Power Distribution Network Under Cold Load Pickup	Vishal Kumar, H. C. Rohit Kumar, I. Gupta and H. O. Gupta

15 December, 2006 (Friday)		
9:00 to 9:45	Keynote Talk – III “Decentralised Power Generation using Renewable Energy – Present Status and Future Trends” S. S. Murthy, CEA Chair Professor Electrical Engineering Department Indian Institute of Technology Delhi	
9:45 to 10:15	Tea	
10:15 to 11:30	Session – 8	
3D-II (Simulation of Power Electronics Converters and Drives-II)		10:15 to 11:30
		15 December, 2006
3D-11	Generalized Discontinuous PWM Based Direct Torque Controlled Induction Motor Drive with a Sliding Mode Speed Controller	T. Brahmananda Reddy, J. Amarnath, Subbarayudu and Md. Haseeb Khan
3D-12	Hardware-in-Loop Simulation of Direct Torque Controlled Induction Motor.	P. K. Gujarathi and M. V. Aware
3D-16	Near-Field Modeling and Prediction of Switched Mode Power Supply	Bai.Feng, Niu Zhong-Xia, Shi Yu-Jie, Zhou Dong –Fang
3D-17	Power Electronic Circuit Oriented Model for Fuel Cell System	M. Veerachary and A.S. Kumar
3D-21	A Simplified Space-Vector Modulated Control Scheme for CSI fed IM drive.	P. Parthiban Pramod Agarwal and S. P.Srivastava.
4B-IV (Power Quality-IV)		10:15 to 11:30
		15 December, 2006
4B-31	Minimum Loss Configuration of Power Distribution System	Jaswanti and Tilak Thakur

4B-33	Control of Cascaded H-Bridge Converter Based DSTATCOM for High Power Applications	K. Anuradha, B. P. Muni and A.D. Rajkumar
4B-34	Review of Arc furnace Modeling for Power Quality Improvement Studies	Anuradha. K
4B-35	An Investigation on the Power Direction and Current Vector Methods for Harmonic Contribution Determination	A. Azadi, A. Sheikh Al Eslami, S. A. Nabavi and S. Lesan
4B-36	Detection and Classification of Non-Stationary Power Disturbances in Noisy Conditions	B. K. Panigrahi, and S. K. Sinha
5C-II (Application of Neural Networks and Fuzzy Logic Systems-II)		10:15 to 11:30
		15 December, 2006
5C-24	Neural Approach for Automatic Identification of Induction Motor Load Torque in Real-Time Industrial Applications	Alessandro Goedte, Ivan N. da Silva and Paulo J.A. Serni
5C-28	Speed Estimation for Sensorless Technology Using Recurrent Neural Network and Single Current Sensor	Alessandro Goedtel, Ivan N. da Silva and Paulo J.A. Serni
5C-32	Electricity Price Forecasting Using ANN	S. Soleymani, M. Ranjbar N.Sadati and A.M. Ranjbar
5C-33	A Novel Fuzzy Logic Based Predictive Current Regulated PWM Inverter for High Performance AC drives	Bishnu P. Muni
5C-35	A New Approach for Fault Location Identification in Transmission System Using Stability Analysis and SVMs	D. Thukaram, H. P. Khincha and B. Ravikumar
9B-II (Interdisciplinary Areas-II)		10:15 to 11:30
		15 December, 2006
9B-07	Active Power Filter Control Algorithms Using Wavelets	Karunesh K. Gupta, Rajneesh Kumar and H. V. Manjunath
9B-10	A Study of Switching Frequency Changing in Full Bridge Inverter of Ozone Gas Generating Quantity	S. Ketkaew and A. Jangwanitlert
9B-12	A Prototype for Dust Trap by Applied High Voltage DC Switching Power Supply.	S. Ketkaew and K. Bisalyaputra
9B-14	Modeling and Control of an Electric Arc Furnace	M. Hejri and H. Mobed
9B-17	Effects of Power Lines on Performance of Home Control Systems	Vishnu Chunduru, and Nary Subramanian
11:30 to 11:45 Tea		
11:45 to 13:00 Session – 9		
1D-III (Brushless Permanent Magnet and Switched Reluctance Motors)		11:45 to 13:00
		15 December, 2006
1D-19	A Novel Hybrid Brushless DC Motor/Generator for Hybrid Vehicles Applications	E. Afjei and H. Toliyat
1D-20	Computer Aided Design and FE Analysis of a Permanent Magnet Brushless DC Hub Motor	Chippa Sathaiah and K. R. Rajagopal

1D-22	Effect of Armature Reaction Skewing on the Performances of Radial-Flux Surface Mounted Permanent Magnet Brushless DC Motor	Parag R. Upadhyay and K. R. Rajagopal
1D-24	Rotor Pole Shaping for Torque Ripple Minimization of Interior Permanent Magnet Brushless DC Motor	Parag R. Upadhyay and K. R. Rajagopal
1D-25	Design and Development of In- Wheel Permanent Magnet Brushless D.C Motor Drive for an Electric Scooter	N. Ravi, S. Ekram, and D. Mahajan
3A-III (AC/DC & AC/AC Converters-III)		11:45 to 13:00
		15 December, 2006
3A-22	A Novel harmonic Mitigation Converter for Variable Frequency Drives	Bhim Singh, and Sanjay Gairola
3A-23	Performance Comparison of High Frequency Transformer Isolated AC-DC Converters for Power Quality Improvement at Input AC Mains	Bhim Singh, B. P.Singh and Sanjeet Dwivedi
3A-24	Single-Phase Resonant Converter with Active Power Filter	M. A. Chaudhari and H. M Suryawanshi
3A-25	PV Power Tracking through Utility Connected Single Stage Inverter	K.S. Phani Kiranmai and M. Veerachary
3A-26	A Novel Control of Bi-Directional Switches in Matrix Converter	Meharegzi Tewolde and Shyama P.Das
4A-III (Active Filters and VAR Compensation Schemes- III)		11:45 to 13:00
		15 December, 2006
4A-19	State Space Modeling and Control of a PWM Three-Phase Four-Leg Shunt APF	H. Y. Kanaan, A. Hayek and Kamal Al- Haddad
4A-22	Operation of a 12-pulse Converter in Closed Loop for Controlled P-Q Operation	Faisal M.Ahsan, J.K.Chaterjee and Anandarup Das
4A-24	A Novel Structure for Three-Phase Four-wire Distribution System Utilizing UPQC	V. Khadkikar and A. Chandra
4A-25	Load Compensation for Diesel Generator Based Isolated Generating System Employing DSTATCOM	Bhim Singh and Jitendra Solanki
4A-26	A Novel Optimized Reference Current Generation Algorithm for Shunt Active Power Filters	Pukhraj Singh and Varun Singhal
5A-IV (Non-Conventional, Distributed & Co-Generation-IV)		11:45 to 13:00
		15 December, 2006
5A-40	A Steady State Analysis on Voltage and Frequency Control of Self-Excited Induction Generator in Micro-Hydro System	Bhim Singh, S. S. Murthy, Madhusudan, Manish Goel and A. K. Tandon
5A-41	A Novel Digital Control Technique of Electronic Load Controller for Self-Excited Induction Generator Based Micro Hydel Power Generation	S. S. Murthy, Ramrathnam, M. S. Gayathri, Kiran Naidu and Uddanti Siva
5A-43	Analysis and Design of Voltage and Frequency Controllers for Isolated Asynchronous Generators in Constant Power Applications	Bhim Singh, and Gaurav Kumar Kasal

5A-44	A Simple Controller Using Line Commutated Inverter with Maximum Power Tracking for Wind Driven Grid Connected Permanent Magnet Synchronous Generators	V. Lavanya, N. Ammasai Gounden and Polimera Malleswara Rao
5A-45	A High-Power High-Frequency and Scalable Multi-MW Fuel-Cell Inverter for Power Quality Improvement and Distributed Generation	Sudip K. Mazumder and Rongjun Huang
13:00 to 14:00 Lunch		
14:00 to 16:00 Session- 10		
1A-II (Analysis and Design of Electrical Machines-II)		14:00 to 16:00
		15 December, 2006
1A-06	Effects of Different Voltage Sags on Three-Phase Transformers	M. R. Shakarami and A. Jalilian
1A-07	Design and Transient Analysis of Cage Induction Motor Using Finite Element Methods	Bhoj Raj Singla, Sanjay Marwaha, Anupama Marwaha
1A-08	Estimation of Performance Characteristics of Three Phase Induction Motor from it's Catalogue Data	Satish Chandra Sabharwal
1A-09	State Space Dynamic Modeling and Control of Three Phase Self-Excited Induction Generator	Avinash Kishore, B.M. Karan, R. C. Prasad and Sathish Kumar
1A-10	Design of Squirrel Cage Induction Motor for Traction Applications	S. S. Murthy, Bhim Singh, G. Bhuvaneswari, Kiran Naidu and Uddanti Siva
1A-14	Effect of Sequential Phase Energization on the Inrush Current of a Delta Connected Transformer	K. P. Basu, Ali Asghar and Stella Morris
1A-15	Accurate Performance Prediction of the Three phase Induction Motor by FEM using Separate Saturation Curves for Teeth and Yoke	V. Jaiswal, M. Fazil, A. Hangal, and N. Ravi.
2C-II (Control of Electric Drives-II)		14:00 to 16:00
		15 December, 2006
2C-13	Adaptive Controller Design for Permanent Magnet Linear Synchronous Motor Control System	B. Srinivasu, P. V. N. Prasad and M. V. Ramana Rao
2C-14	An Overmodulation Scheme for Vector Controlled Induction Motor Drives	S. Venugopal and G. Narayanan
2C-18	Modified Direct Torque Control of Matrix Converter Fed Induction Motor Drive	Bhim Singh, and J. Ravi
2C-19	LMI Based Digital State Feedback Controller for a Wound Rotor Induction Motor Drive with Guaranteed Closed Loop Stability	D. Sivanandakumar and K. Ramakrishnan
2C-21	Open-End Winding Induction Motor Driven with Matrix Converter for Common-Mode Elimination	K. K. Mohapatra and Ned Mohan
2C-22	Elimination of Common Mode Voltage and Fifth and Seventh Harmonics in a Multilevel Inverter Fed IM Drive Using 12-Sided Polygonal Voltage Space Phasor	Sanjay Lakshminarayanan, Gopal Mondal, P. N. Tekwani and K. Gopakumar
2C-23	Two Fast Optimal Flux Search Techniques for DTC Based Induction Motor Drives	A. Gholami, R. Zamani, and H. Oraee

2C-25	A New Space Vector Pulse Width Modulation for Regulation of Common Mode Voltage in Direct Torque Controlled Induction Motor Drive	Y. V. Siva Reddy ,T. Brahmananda Reddy and M. Vijaya Kumar
3B-II (PWM & DC/DC converters-II)		14:00 to 16:00
		15 December, 2006
3B-11	Auto Voltage Balancing in High Power DC-DC Converter	S. B. Bodkhe, V. P. Virulkar, S. W. Mohod and M. V. Aware
3B-12	Inrush Current Control of a DC-DC Converter Using MOSFET	Anand Keerthi and Gaddam Mallesham
3B-14	ZVT Boost Converter Using an Auxiliary Resonant Circuit	Matheepot Phattanasak
3B-17	Peak current Mode Control of Hybrid Switched Capacitor Converter	M. Veerachary, and Balasudhkar
3B-19	A Novel Topology for Multiple Output DC-DC Converter for One Cycle Control	Ravindra Kumar Singh
3B-20	New Hybrid SVPWM Strategy methods for Direct Torque Controlled Induction Motor Drive for Reduced Current Ripple	T. Brahmananda Reddy, J. Amarnath and D. Subbaryudu
3B-21	Analysis of Experimental Investigation of Various Carrier Based Modulation Scheme for Three Level Neutral Point Clamped Inverter Fed Induction Motor Drive	Ranjan K. Behera, T. V. Dixit and Shyama P. Das
8B – (FACTS) & 8C – (HVDC)		14:00 to 16:00
		15 December, 2006
8B-01	Optimum Design of UPFC Controllers Using GEA: Decoupled Real & Reactive Power Flow and Damping Controllers	N. Ray Chaudhuri and M. L. Kothari
8B-02	Application of Static Synchronous Series Compensator to Damp Sub-Synchronous Resonance.	Hassan Barati, A. Lashkar Ara, M. Ehsan, M. Fotuhi F. and S. M. T. Bathace
8B-03	A New 24-Pulse STATCOM for Voltage Regulation	Bhim Singha and R. Saha
8B-05	A Nonlinear Fuzzy PID Controller for CSI-STATCOM	A. Kazemi and A. Tofighi.
8B-07	Distance Relay Tripping Characteristics in Present of UPFC	S. Jamali, A. Kazemi, and H. Shateri
8B-09	Investigations on Boundaries of Controllable Power Flow with Unified Power Flow Controller	S. Srividhya, C. Nagamani and A. Karthikeyan
8C-01	VSC based HVDC Light system for Passive Network with Fuzzy Controller	A. K. Moharana, P. K. Dash and B. K. Panigrahi
8C-02	Voltage Regulation and Power Flow Control of VSC Based HVDC System	Bhim Singh, B. K. Panigrahi and D. Madhan Mohan
16:00 to 16:15		Tea
16:15 to 17:00		Concluding Session

- Note:
- 1) Presentation time for a paper is 15 minutes, which includes the time for discussions also.
 - 2) PC with LCD projectors will be available at the conference venue.
 - 3) Overhead Transparency projectors will not be available.
 - 4) Authors may bring the presentation materials in soft copy (preferably in Power Point Presentation through pen-drive or CD).
 - 5) Authors can load their presentation material 15 minutes prior to starting of the Sessions and can verify the presentation.