Table of Contents

Preface and Organising Committee	
Analysis, Design and Implementation of DC-DC Boost Converter Using H∞ Loop Shaping Controller D. Tamilarasi, A.A. Namith and T.S. Sivakumaran	1
Building Multi-Dimensional Cube to Analyze Public Examination Results: A Business Intelligence Approach	
J.M. Abraham Navamani, A. Kannammal and P.R. Jeba Thangaiah	11
Comparison of Performance Measures of Speed Control for a DC Motor Using Hybrid Intelligent Controller and Optimal LQR T.V. Narmadha, C. Baskaran and K. Sivakumar	23
Comparison of Z Source and Embedded Z Source Inverters in Micro Wind Power Generation System J.J.J. Brintha, S. Rama Reddy and N. Subashini	33
Comparative Analysis of Various Modulation Strategies for Induction Heating System N. Booma, R.R. Sathi and V. Pradeep	39
Continuous Wavelet Analysis of the Breathing Sounds of Obstructive Sleep Apnea Patients and Normal Subjects during Wakefulness R. Premkumar, C. Arun and R.S. Divya	45
Design and Simulation of Self Lift Positive Output Luo Converter Using Incremental Conductance Algorithm for Photovoltaic Applications	43
M. Chilambarasan, M.L. Devi and M.R. Babu	51
Design and Simulation of PV Powered Nine Level Cascaded Multilevel Inverter Using Embedded System T. Nandhini and C. Sankar	59
Ductility of Concrete Encased Cold-Formed Steel Beam with Trapezoidally Corrugated Web	
R. Divahar and P.S. Joanna	65
Enhanced Backpropagation Approach for Identifying Genetic Disease B. Nisha, B. Madasamy and J.J. Tamilselvi	75
Experimental Study on Reinforced Concrete Beam and Composite Column Joint with Square Steel Cage P.S. Aravind Raj and P.S. Joanna	81
Estimation of Surface Runoff Using Soil and Water Assessment Tool (SWAT) K. Kaviya and M. Ramalingam	89
Interleaved Boost Converter for Photovoltaic Energy Generation V. Karthikeyan, V. Jamuna and D. Rajalakshmi	97
Investigation of Quasi Z-Source Cascaded Multilevel Inverter for PV System with Maximum Power Point Tracking D. Umarani and R. Seyezhai	105
Investigation of Modified Generalized Interline Power Flow Controller (GIPFC) and	105
Performance Analysis A. Saraswathi and S. Sutha	111
Modelling, Simulation and Implementation of the Three-Phase Fuzzy Based Shunt Active Filter for Limiting the Total Harmonic Distortion R. Zahira, A. Peer Fathima and R. Muthu	121
Multilevel Inverter for Hybrid Energy Generation System V. Karthikeyan, V. Jamuna and A. James	127
Performance Estimation of Multicarrier Based Multilevel Inverter J. Gayathri Monicka, V. Jamuna and K. Hemalatha	133
Photovoltaic Array under Partial Shading Condition for Irrigation G. Rohini, V. Jamuna and D. Priyadarsini	141
Power Quality Problems in PV Fed Grid Connected Inverter N. Saritha, V. Jamuna and N. Nanthini	147

Space Vector Modulation Controlled Single Phase Five Level Inverter for Fuel Cell Applications	
V. Raghavendra Rajan, N. Tejesvi, S.S. Sharmila, A. Neenu Therese and M. Sasikumar	153
Simulation and Modeling of SVM Based WECS with PMSG Using Cuk Converter M. Baskar, V. Jamuna and S.D. Senthoor	163
Suitability of Asymmetrical Multilevel Inverters for Partial Shaded Photovoltaic Systems S. Malathy and R. Ramaprabha	173
Three Phase Matrix Converter for Variable Speed Wind Energy System A. Jamna, V. Jamuna and R.R. Sathy	181
Trust Based Misbehavior Detection in Wireless Sensor Networks D. Jayashree, V. Uma Rani and K. Soma Sundaram	191
VSI-Fed Induction Motor Drive for Photovoltaic Pumping R. Sivaprasad and V. Jamuna	199
Z - Source Inverter for Drive Applications S. Sasikala and V. Jamuna	205
1-Phase Induction Motor Control Using Modified H-Bridge 11-Level Inverter I. William Christopher and R. Ramesh	211