

# Contents

<b>1</b>	<b>Smart Grid Environment with Effective Storage and Computational Facilities. . . . .</b>	<b>1</b>
	T. Rajeev and S. Ashok	
<b>2</b>	<b>Implementation of Kalman Filter to Monitor the Level Fluctuations in a Dam Using FPGA . . . . .</b>	<b>9</b>
	K. Shashank, Nitin Ravi, M. Rakshith and J. V. Alamelu	
<b>3</b>	<b>Medical Image Watermarking Based on DWT and ICA for Copyright Protection. . . . .</b>	<b>21</b>
	P. Mangaiyarkarasi and S. Arulselvi	
<b>4</b>	<b>AANN-Based Online Handwritten Tamil Character Recognition . . . . .</b>	<b>35</b>
	AN. Sigappi and S. Palanivel	
<b>5</b>	<b>Obstacle Detection Techniques for Vision Based Autonomous Navigation Systems. . . . .</b>	<b>43</b>
	R. Karthikeyan, B. Sheela Rani and K. Renganathan	
<b>6</b>	<b>Multilevel Renyi's Entropy Threshold Selection Based on Bacterial Foraging Algorithm. . . . .</b>	<b>53</b>
	P. D. Sathya and V. P. Sakthivel	
<b>7</b>	<b>Re-Routing Strategy for Wireless Virtual Private Networks with CDMA Nodes . . . . .</b>	<b>67</b>
	C. Mahalakshmi and M. Ramaswamy	

<b>8</b>	<b>Stopping Power of Proton Beam in Water Phantom: A Simulational Study . . . . .</b>	<b>79</b>
	Sirisha Sathiraju Naga lakshmi and Sonali Bhatnagar	
<b>9</b>	<b>Decidable Utility Functions Restricted to a System of Fuzzy Relational Equations. . . . .</b>	<b>89</b>
	Garima Singh, Dhaneshwar Pandey and Antika Thapar	
<b>10</b>	<b>Fuzzy Model for Optimal Operation of a Tank Irrigation System . . . . .</b>	<b>103</b>
	N. Manikumari and A. Murugappan	
<b>11</b>	<b>Deconvolving the Productivity of Salespeople via Constrained Quadratic Programming . . . . .</b>	<b>113</b>
	Gautam K. Bhat and Kush R. Varshney	
<b>12</b>	<b>An Integrated Community Economic System: Gateway to a Sustainable New World Order . . . . .</b>	<b>125</b>
	B. Aashiq and Prem Sewak Sudhish	
<b>13</b>	<b>Evaluation of New COPWM Techniques for Three Phase Seven Level Diode Clamped Z-Source Inverter . . . . .</b>	<b>135</b>
	V. Arun, B. Shanti and S. P. Natarajan	
<b>14</b>	<b>Implementation of Sliding Mode Controller to Regulate the Speed for Series Connected Chopper Fed Separately Excited DC Motor Drive. . . . .</b>	<b>147</b>
	N. Rathika, N. Sathya and A. Ezhilarasi	
<b>15</b>	<b>New Modulation Strategies for Symmetrical Three Phase Multilevel Inverter with Reduced Number of Switches. . . . .</b>	<b>161</b>
	C. R. Balamurugan, S. P. Natarajan and V. Vidhya	
<b>16</b>	<b>Comparative Study of Unipolar Multicarrier PWM Strategies for Five Level Diode Clamped Inverter . . . . .</b>	<b>179</b>
	T. Sengolrajan and B. Shanthi	
<b>17</b>	<b>A New Three-Level Zero Voltage Switching Converter . . . . .</b>	<b>193</b>
	C. Karthikeyan and K. Duraiswamy	
<b>18</b>	<b>Common Mode Injection PWM Scheme with Equal Zero Vector Placement for Three Level NPC Inverter . . . . .</b>	<b>205</b>
	S. Nageswari and V. Suresh Kumar	

<b>19 Fuzzy Based Harmonic Reduction Strategy for DC Link Inverters . . . . .</b>	<b>219</b>
N. Radhakrishnan and M. Ramaswamy	
<b>20 Analysis on Electrical Distance in Deregulated Electricity Market . . . . .</b>	<b>227</b>
S. Prabhakar Karthikeyan, C. Abirami, P. Devi, I. Jacob Raglend and D. P. Kothari	
<b>21 A Novel Fuzzy Control Approach for Load Frequency Control. . .</b>	<b>239</b>
Rahul Umrao and D. K. Chaturvedi	
<b>22 Order Reduction of Interval Systems Using Alpha and Factor Division Method . . . . .</b>	<b>249</b>
D. Kranthi Kumar, S. K. Nagar and J. P. Tiwari	
<b>23 Impulse Fault Detection and Classification in Power Transformers with Wavelet and Fuzzy Based Technique . . . . .</b>	<b>261</b>
N. Vanamadevi and S. Santhi	
<b>24 Implementation of Neural Network Based V/F Control for Three Phase Induction Motor Drive with Power Factor Improvement. . . . .</b>	<b>275</b>
K. Prakasam, R. Poornima and S. Ramesh	
<b>25 Model Based Approach for Fault Detection in Power Transformers Using Particle Swarm Intelligence . . . . .</b>	<b>287</b>
M. Arivamudhan and S. Santhi	
<b>26 Finite Element Method Magnetics Based Demonstration of Rotating Field in 4-Pole Induction Motor . . . . .</b>	<b>301</b>
Gururaj S. Puneekar, D. Harimurugan and Gautham H. Tantry	
<b>27 Modelling of Integrating and Unstable Time Delay Processes. . . .</b>	<b>311</b>
Bajarangbali and Somanath Majhi	
<b>28 Design and Implementation of Fractional-Order Controller for Fractional Order System . . . . .</b>	<b>319</b>
J. Prakash and S. R. Jayasurian	
<b>29 Effect of Choice of Basis Functions in Neural Network for Capturing Unknown Function for Dynamic Inversion Control . . . . .</b>	<b>327</b>
Gandham Ramesh, P. N. Dwivedi, P. Naveen Kumar and R. Padhi	

<b>30</b>	<b>Design, Development and Evaluation of Longitudinal Autopilot for An Unmanned Aerial Vehicle Using X-Plane/Simulink . . . . .</b>	<b>343</b>
	A. Kaviyarasu, P. Sivaprakash and K. Senthilkumar	
<b>31</b>	<b>Comparison of State Estimation Algorithms on the Tennessee Eastman Process . . . . .</b>	<b>357</b>
	J. Vinoth Upendra and J. Prakash	
<b>32</b>	<b>Modeling of ECG Signal and Validation by Neural Networks . . .</b>	<b>369</b>
	N. Sathya and R. Malathi	
<b>33</b>	<b>Detection of Obstructive Sleep Apnoea Using ECG Signal . . . . .</b>	<b>381</b>
	A. Aishwarya, N. S. Bharath, M. Swathi and Ravi Prabha	
<b>34</b>	<b>Automated Detection and Classification of Blood Diseases . . . . .</b>	<b>393</b>
	A. N. Nithyaa, R. Premkumar, D. Kanchana and Nalini A. Krishnan	
<b>35</b>	<b>An Automated Breathing Device for Critically Ill Patients. . . . .</b>	<b>405</b>
	N. Padmasini and J. Archana	
<b>36</b>	<b>Evaluation of Hypolipidemic Effect of Various Extracts of Whole Plant of <i>Bauhinia purpurea</i> in Rat Fed with High Fat Diet . . . . .</b>	<b>413</b>
	C. D. Shajiselvin and A. Kottai Muthu	
<b>37</b>	<b>Immunomodulatory Activity of Aqueous Leaf Extract of <i>Ocimum sanctum</i> . . . . .</b>	<b>425</b>
	V. V. Venkatachalam and B. Rajinikanth	
<b>38</b>	<b>Isolation and Characterization of Active Components Derived from Whole Plant of <i>Mucuna pruriens</i> (Linn.) . . . . .</b>	<b>433</b>
	D. Satheesh Kumar, A. Kottai Muthu and K. Kannan	
<b>39</b>	<b>Despeckling of Polycystic Ovary Ultrasound Images by Fuzzy Filter. . . . .</b>	<b>443</b>
	H. Prasanna Kumar and S. Srinivasan	
<b>40</b>	<b>Characterisation of Streptomycetes from Lignite Mines and their Antagonistic Activity Against Bacteria and Fungi. . . . .</b>	<b>451</b>
	V. Parthasarathy, G. S. Prasad and R. Manavalan	
<b>41</b>	<b>Biogeography Based Optimization Technique for Economic Emission Dispatch . . . . .</b>	<b>463</b>
	S. Rajasomashekar and P. Aravindhababu	

<b>42</b>	<b>BBO-Based TCSC Placement for Security Enhancement . . . . .</b>	<b>475</b>
	K. Kavitha and R. Neela	
<b>43</b>	<b>Reliable Design of Embedded System with Minimal Resource Using SFT and Mode Algorithm . . . . .</b>	<b>487</b>
	M. V. Raja and R. Srivatsan	
<b>44</b>	<b>ANN Based Word Sense Identifying Scheme for Question Answering Systems . . . . .</b>	<b>499</b>
	C. Meenakshi and P. Thangaraj	
	<b>Author Index . . . . .</b>	<b>507</b>

Recent Advancements in System Modelling Applications

Proceedings of National Systems Conference 2012

Malathi, R.; Krishnan, J. (Eds.)

2013, XIII, 508 p., Hardcover

ISBN: 978-81-322-1034-4