

## Table of Contents

Volume 7 Number 6

May 2016

### Content Addressable Memory Using Automatic Charge Balancing with Self-Control Mechanism and Master-Slave Match Line Design

D. Jose, P. Suganya, P. N. Kumar.....597

### Design and FPGA-Implementation of Minimum PED Based K-Best Algorithm in MIMO Detector

P. Ramasamy, M. B. Ahmedkhan, M. Rangasamy.....612

### Critical Data Delivery Using TOPSIS in Wireless Body Area Networks

K. Suriyakrishnaan, D. Sridharan.....622

### Design and Implementation of Efficient Reversible Arithmetic and Logic Unit

S. Saravanan, I. Vennila, S. Mohanram.....630

### Simulation and Implementation of Solar Powered Electric Vehicle

A. B. Sankar, R. Seyezhai.....643

### Performance-Economic and Energy Loss Analysis of 80 KWp Grid Connected Roof Top Transformer Less Photovoltaic Power Plant

S. S. Kumar, C. Nagarajan.....662

### Intelligent Controller for UPQC Using Combined Neural Network

R. Saravanan, S. Manoharan.....680

### Efficient Global Threshold Vector Outlyingness Ratio Filter for the Removal of Random Valued Impulse Noise

J. Amudha, R. Sudhakar.....692

### Multitude Classifier Using Rough Set Jelinek Mercer Naïve Bayes for Disease Diagnosis

S. Prema, P. Umamaheswari.....701

### Stability Analysis of Multi-Dimensional Linear Time Invariant Discrete Systems within the Unity Shifted Unit Circle

P. Ramesh.....709

### Certain Algebraic Test for Analyzing Aperiodic Stability of Two-Dimensional Linear Discrete Systems

P. Ramesh.....718

### Sensorless Control of Four-Switch Inverter for Brushless DC Motor Drive and Its Simulation

S. K. Shanmugam, M. Ramachandran, K. K. Kanagaraj, A. Loganathan.....726

**Minimizing Time in Scheduling of Independent Tasks Using Distance-Based Pareto Genetic Algorithm Based on MapReduce Model**

D. Rajeswari, V. J. Senthilkumar..... 735

**Performance Analysis of Malicious Node Detection and Elimination Using Clustering Approach on MANET**

S. Gopalakrishnan, P. M. Kumar..... 748

**Hybrid Fuzzy Controller Based Frequency Regulation in Restructured Power System**

P. Anitha, P. Subburaj..... 759

**A Multi Input Multi Output Converter for Hybrid Energy Systems**

T. B. Immanuel, A. Suresh, M. R. Rashmi..... 771

**Realization of Unified Power Quality Conditioner for Mitigating All Voltage Collapse Issues**

P. Pugazhendiran, J. Baskaran..... 779

**Design of Robust Controller for LFC of Interconnected Power System Considering Communication Delays**

T. J. Mary, P. Rangarajan..... 794

**Improving Voltage Stability of Power System by Optimal Location of FACTS Devices Using Bio-Inspired Algorithms**

N. Archana, R. Vidhyapriya..... 805

**An Approach for Damage Identification and Optimal Sensor Placement in Structural Health Monitoring by Genetic Algorithm Technique**

U. Muthuraman, M. M. Sai Hashita, N. Sakthieswaran, P. Suresh, M. Raj Kumar, P. Sivashanmugam..... 814

**A Hybrid Associative Classification Model for Software Development Effort Estimation**

S. Saraswathi, N. Kannan..... 824

**Performance Analysis of PI and Fuzzy Control for Modified LCC Resonant Converter Incorporating Boost Converter**

N. Madhanakkumar, T. S. Sivakumaran..... 835

**Surface Area Estimation, Volume Change Detection in Lime Stone Quarry, Tirunelveli District Using Cartosat-1 Generated Digital Elevation Model (DEM)**

S. Karuppasamy, S. Kaliappan, R. Karthiga, C. Divya..... 849

**RF MEMS Based Reconfigurable Rectangular Slotted Self Similar Antenna**

S. Anand, J. J. P. Gloria..... 859

**Cluster Analysis to Assess Groundwater Quality in Erode District, Tamil Nadu, India**

G. Oorkavalan, S. M. Chidambaram, V. Mariappan, G. Kandaswamy, S. Natarajan..... 877

**Cloud Computing-System Implementation for Business Applications**

S. S. Sargunam..... 891

**Hybrid Energy-Efficient Transmission Protocol for Heterogeneous Wireless Sensor Networks**

R. J. Kavitha, B. E. Caroline.....897

**Solving Level Scheduling in Mixed Model Assembly Line by Simulated Annealing Method**

S. Ramalingam, R. A. Subramanian.....907

**A Novel Asymmetrical Single-Phase Multilevel Inverter Suitable for Hybrid Renewable Energy Sources**

C. P. Boopathy, M. Kaliamoorthy.....932

**Improved Dynamic Response of DC to DC Converter Using Hybrid PSO Tuned Fuzzy Sliding Mode Controller**

R. Anand, P. M. Mary.....946

**A Process Variation Tolerant OTA Design for Low Power ASIC Design**

R. Benschwartz, P. Sakthivel.....956

**An Innovative Design Approach to Control over Ad Hoc Networks**

S. Subburam, T. Senthilkumaran, S. Revthi, M. Mathvanan.....971

**Recognizing Expression Variant and Occluded Face Images Based on Nested HMM and Fuzzy Rule Based Approach**

P. Ramalingam, S. Dhanushkodi.....983

**Energy-Delay Efficient Unified Routing Protocol for Wireless Sensor Networks**

V. P. Jayachitra, G. Geetha, K. S. Vijay.....995

**Multi-Criteria Decision Making Using ELECTRE**

S. A. S. A. Mary, G. Suganya.....1008

**Integral Performance Criteria Based Analysis of Load Frequency Control in Bilateral Based Market**

P. Anitha, P. Subburaj.....1021

**Leakage Analysis of a Low Power 10 Transistor SRAM Cell in 90 nm Technology**

P. Muthusamy, S. Dhandapani.....1033

**An Intelligent Fuzzy Based Energy Detection Approach for Cooperative Spectrum Sensing**

S. Bharatula, M. Murugappan.....1042

**ART Based Reliable Method for Prediction of Agricultural Land Changes Using Remote Sensing**

M. P. Malini, M. C. S. Kumar, N. Sakthieswaran.....1051

**Blocking Probability in All-Optical WDM Network Using IMCA**

G. Karpagarajesh, M. Vijayaraj.....1068