2014 IEEE Projects

EMBEDDED 2014 IEEE Paper

1. Intelligent Streetlight Energy-Saving System Based On Lonworks Power Line Communication Technology

2. Performance Of Time-Critical Smart Grid Applications In Narrow Band Power Line Communication

3. Advanced Metering Infrastructure Performance Using European Low-Voltage Power Line Communication Networks


5. A Proposal On Wireless Power Transfer For Medical Implantable Applications Based On Reviews

6. Wireless Power Transmission With Self-Regulated Output Voltage For Biomedical Implant

7. A Transmitter Or A Receiver Consisting Of Two Strongly Coupled Resonators For Enhanced Resonant Coupling In Wireless Power Transfer

8. Development Of A Skin-Like Tactile Sensor Array For Curved Surface

9. Advanced User Interfaces For Intelligent Wheelchair System
10. A Quasi-Zero-Stiffness-Based Sensor System In Vibration Measurement

11. A Fault Preventive Wireless Sensor Sewer System

12. A Reconfigurable Smart Sensor Interface For Industrial Wsn Environment

13. Android Interface Based Gsm Home Security System


15. Differentiated Virtual Passwords, Secret Little Functions, And Codebooks For Protecting Users From Password Theft

16. Energy-Theft Detection Issues For Advanced Metering Infrastructure In Smart Grid

17. Intelligent Machine Guard Monitoring A Wireless System To Improve Miner Safety

18. Semantic Context-Aware Service Composition For Building Automation System

19. Tactical Driving Behavior With Different Levels Of Automation

2014-15 Embedded Innovative Titles

1. A fault preventive wireless sensor sewer system for urban infrastructure management infusing embedded systems
2. Automated Wireless Monitoring and Controlling of Water Distribution System in metropolitan cities
3. Embedded Technology for vehicle cabin safety Monitoring and Alerting System
4. Human Activity Surveillance based on Wearable BSN
5. Implementation of Green Wave system and Detection of Stolen Vehicles
6. A Framework for Daily Activity Monitoring and Fall Detection Based on Surface Electromyography and Accelerometer Signals
7. A New Automatic Alarming Device to Rescue Accident Injured in Time
8. Experimental Study And Design of Smart Meter
10. Detecting and warning system for fireworks warehouse based on Wireless Sensor Networks
11. Electronic Glove for Speechless Patients a Regional Tongue to a Dumb
12. Environment Feature Extraction and Classification for Context Aware Physical Activity Monitoring
13. A System for Automatic notification and Severity Estimation of Automotive Accidents
14. Embedded Flexible Force Sensor for In-Situ Tire–Road Interaction Measurements
15. Increasing Students Interest With Low-Cost cell bots
16. Real-time personal protective equipment monitoring system
17. Hybrid-RFID-System-based-Pedestrian
18. Semantic Context-Aware Service Composition for Building Automation System
19. Design and Realization of Expressway Vehicle Path Recognition and ETC System
20. Locking and unlocking of theft vehicles using Theft Control System
22. E-Cash Pay off for Fuel Station
23. Selective Device Activation for Power Reduction in Accelerometer
24. Tactical Driving Behavior With Different Levels of Automation
27. Energy-theft detection issues for advanced metering infrastructure in smart grid
28. Differentiated Virtual Passwords, Secret Little Functions, and Codebooks for Protecting users From Password Theft
29. A Reconfigurable Smart Sensor Interface for Industrial WSN in IT Environment
30. Android interface based GSM home security system
31. Adaptive cruise control system using ultra sonic based distance sensor
32. Biomedical Signal Acquisition (ECG, Heart Rate) using ZigBee
33. Building automation system using GSM
34. Anti Theft System for Electronic Equipments using Inertial MEMS Sensor and ZigBee
35. Smart dust Network for Tactical Border Surveillance System
36. Intelligent Spy Robo with sensors & camera rotation
37. Radio controlled System for border areas
38. Monitoring and Diagnosis System for Wind Turbines
39. MCDM approach for selecting suitable solar tracking system
40. Green house monitoring and controlling system for environment based on Zigbee
   (Weather, light, temp, co2)
41. Wireless surveillance and safety system for mine workers based on Zigbee
42. The SpeechBot: Speech Remote Operated Arm Robot
43. Talking Assistive Walking Stick for Blind People with Traffic Signal Analyzer
   and Navigation device
44. Gun license: Weapon Authentication & Control system based on wireless
45. Design and Implementation of PYRO-electric Infrared Sensor based Security
   System
46. Distributed Sensor for Steering Wheel Grip Force Measurement in Driver
   Fatigue Detection
47. Microclimate Controlled Irrigation System for Rural Farmers using GSM
48. Scrolling Advertisement Display with Easy Message Changing Feature
49. A robot motion authoring using finger-robot interaction
50. Intelligent modeling scheme for detection of line losses in power distribution
   using GSM
51. Electronic Nose for Accident Prevention
52. Examination room guide using RFID for the jumbling system based Exams
53. Q_less Banking Time Control Priority Based Token Access System in Banks
   using Mobile Communication
54. Adaptive Traffic Light Pre-emption for Emergency Vehicles using Low Power ZigBee Network
55. People Flow Monitoring and Power Saving System
56. Priority Scheduler for real time power allocation - a hybrid model
57. Emergency Communication Assistive Device for Aged and Ladies
58. Speech Operated Wireless Family Living Supporting System
59. Head motion / Speech Activated controlled Power Wheelchair
60. The New Embedded ATM security system based on machine vision using MATLAB and Embedded
POWER ELECTRONICS 2014 IEEE Paper

POWER CONVERTER

1. 6.6-Kw Onboard Charger Design Using DCM PFC Converter With Harmonic Modulation Technique And Two-Stage Dc/Dc Converter
2. A Boost-Inverter Based Battery-Supported Fuel-Cell Sourced Three-Phase Stand-Alone Power Supply
3. A Cascaded Multilevel Inverter Based on Switched-Capacitor for High-Frequency AC Power Distribution System
4. A Charge-Nonlinear-Carrier-Controlled Reduced-Part Single-Stage Integrated Power Electronics Interface For Automotive Applications
5. A Family of Exponential Step-Down Switched-Capacitor Converters and their Applications in Two-Stage Converters
6. A Half-Bridge LLC Resonant Converter Adopting Boost PWM Control Scheme for Hold-Up State Operation
7. A High-Frequency Link Single-Stage PWM Inverter With Common-Mode Voltage Suppression and Source-Based Commutation of Leakage Energy
8. A New General Topology for Cascaded Multilevel Inverters With Reduced Number of Components Based on Developed H-Bridge
10. A Two-Mode Control Scheme With Input Voltage Feed-Forward for the Two-Switch Buck-Boost DC–DC Converter
11. An Active Damper for Stabilizing Power-Electronics-Based AC Systems
12. An Adaptive Nonlinear Current Observer for Boost PFC AC/DC Converters
14. An Improved ZVT-ZCT PWM DC–DC Boost Converter With Increased Efficiency
15. Automatic Mode-Shifting Control Strategy with Input Voltage Feed-Forward for Full-Bridge Boost DC-DC Converter Suitable for Wide Input Voltage Range
16. Boost-Derived Hybrid Converter With Simultaneous DC and AC Outputs
17. Cascaded Multilevel Inverter with Series Connection of Novel H-Bridge Basic Units
18. Combined Bidirectional Buck–Boost DC–DC Chopper-Mode Inverters With High-Frequency Link
19. Design and Control of a Bidirectional Resonant DC–DC Converter for Automotive Engine/Battery Hybrid Power Generators
20. Digital DCM Detection and Mixed Conduction Mode Control for Boost PFC Converters
21. Dynamic Characterization of Power Electronic Interfaces
22. Hierarchical Control of Parallel AC-DC Converter Interfaces for Hybrid Micro grids
23. Hybrid Dual Full-Bridge DC–DC Converter With Reduced Circulating Current, Output Filter, and Conduction Loss of Rectifier Stage for RF Power Generator Application
24. Hybrid Multilevel Converter with Cascaded H-bridge Cells for HVDC Applications
25. Isolated Switch-Mode Current Regulator With Integrated Two Boost LED Drivers
26. Minimum Time Control for Multiphase Buck Converter: Analysis and Application
27. Multivariable Control of Single-Inductor Dual-Output Buck Converters
28. New Extendable Single-Stage Multi-input DC–DC/AC Boost Converter
29. Operation Modes Analysis and Limitation for Diode-Assisted Buck–Boost Voltage Source Inverter With Small Voltage Vector
30. Robust Time-Delay Control for the DC–DC Boost Converter
31. Survey on Fault-Tolerant Techniques for Power Electronic Converters
32. Symmetric and Asymmetric Design and Implementation of New Cascaded Multilevel Inverter Topology
33. Universal Digital Controller for Boost CCM Power Factor Correction Stages Based on Current Rebuilding Concept

**POWER DRIVES**

1. A Four-Level Inversion Scheme for a 6n-Pole Open-End Winding Induction Motor Drive for an Improved DC-Link Utilization
2. A Novel Speed Measurement Method for a High-Speed BLDC Motor Based on the Signals From the Rotor Position Sensor
3. A Six-Phase Current Reconstruction Scheme for Dual Traction Inverters in Hybrid Electric Vehicles with a Single DC-Link Current Sensor
4. An Adjustable-Speed PFC Bridgeless Buck–Boost Converter-Fed BLDC Motor Drive
5. DC/DC Buck Power Converter as a Smooth Starter for a DC Motor based on a Hierarchical Control
6. Improved Angular Displacement Estimation Based on Hall-Effect Sensors for Driving a Brushless Permanent-Magnet Motor
7. Integrated Inverter/Converter Circuit and Control Technique of Motor Drives With Dual-Mode Control for EV/HEV Applications
8. Sensorless Control of BLDC Motor Drive for an Automotive Fuel Pump Using a Hysteresis Comparator
9. Space Vector Pulse width Amplitude Modulation for a Buck–Boost Voltage/Current Source Inverter
10. Use of Synchronous Modulation to Recover Energy Gained From Matching Long Cable in Inverter-Fed Motor Drive

RENEWABLE ENERGY

1. A High-Frequency Link Multilevel Cascaded Medium-Voltage Converter for Direct Grid Integration of Renewable Energy Systems
2. A Low Complexity Control System for a Hybrid DC Power Source Based on Ultra capacitor–Lead–Acid Battery Configuration
3. A Novel Soft-Switching Multiport Bidirectional DC–DC Converter for Hybrid Energy Storage System
5. An Efficient UPF Rectifier for a Stand-Alone Wind Energy Conversion System
6. An Isolated Multiport DC–DC Converter for Simultaneous Power Management of Multiple Different Renewable Energy Sources
7. Characterizing the Dynamics of the Peak-Current-Mode-Controlled Buck-Power-Stage Converter in Photovoltaic Applications
8. DC Micro grid for Wind and Solar Power Integration
10. Implementation of a High-Efficiency, High-Lifetime, and Low-Cost Converter for an Autonomous Photovoltaic Water Pumping System
11. Management of Battery-Super capacitor Hybrid Energy Storage and Synchronous Condenser for Isolated Operation of PMSG Based Variable-Speed Wind Turbine Generating Systems
12. Power Control and Management in a Hybrid AC/DC Micro grid

POWER SYSTEM

1. A Combined Approach of Using an SDBR and a STATCOM to Enhance the Stability of a Wind Farm
2. A Simplified Control Technique for a Dual Unified Power Quality Conditioner
3. Adaptive PI Control of STATCOM for Voltage Regulation
4. An Add-On Self-Tuning Control System for a UPFC Application
5. An Advanced STATCOM Model for Optimal Power Flows Using Newton’s Method
6. Average Power Balancing Control of a STATCOM based on the Cascaded H-Bridge PWM Converter with Star Configuration
7. Cascaded Two-Level Inverter-Based Multilevel STATCOM for High-Power Applications
8. Design and Implementation of an 11-Level Inverter With FACTS Capability for Distributed Energy Systems
9. Elimination of Coupling Transformer Core Saturation in Cascaded Multilevel Converter Based T-STATCOM Systems
10. Impact of Midpoint STATCOM on Generator Loss of Excitation Protection
11. Medium-Voltage 12-Pulse Converter: Output Voltage Harmonic Compensation Using a Series APF
13. SHE-PWM Cascaded Multilevel Inverter with Adjustable DC Voltage Levels Control for STATCOM Applications
MATLAB 2014 IEEE Papers


2. Designing an Efficient Image Encryption-Then-Compression System via prediction Error Clustering and Random Permutation.


4. Exposing Digital Image Forgeries by Illumination Color Classification.

5. Fingerprint Compression Based on Sparse Representation.


8. BRINT: Binary Rotation Invariant and Noise Tolerant Texture Classification.

9. Hyperspectral Image Classification Through Bilayer Graph-Based Learning.


12. Scene Text Recognition in Mobile Applications by Character Descriptor and Structure Configuration.

14. Mixed Noise Removal by Weighted Encoding with Sparse Nonlocal Regularization

15. Phase-Based Binarization of Ancient Document Images: Model and Applications

**VLSI 2014 IEEE PAPER**

**AES**

1. A Performance and Area Efficient ASIP for Higher-Order DPA-Resistant AES.
2. Parallel AES Encryption Engines for Many-Core Processor Arrays.

**FIR**

3. Efficient FPGA and ASIC Realizations of DA-Based Reconfigurable FIR Digital Filter
4. High speed multiplier for FIR filters design using window.
5. Designing Hardware-Efficient Fixed-Point FIR Filters in an Expanding Sub expression Space.
6. High speed multiplier for FIR filter design using window
7. FPGA based partial reconfigurable fir filter design

**OFDM**

Rajamanickam Enclave, Plot No.1940, Mezzanine floor, 18th Main Road, Anna Nagar, Chennai- 600 040. Tel: +91-44-4263 7391 / 7299926313/9952077540 | Web Site: www.iisttechnologies.in
8. Efficient FPGA Implementation of Address Generator for Wi-MAX Deinterleaver.
9. Low-Power Correlation for IEEE 802.16 OFDM Synchronization on FPGA.

**ADDERS AND MULTIPLIERS**

11. High speed vedic multiplier designs- A review
12. Multiplication acceleration through quarter precision wallace tree multiplier
13. Power- and area-efficient Approximate Wallace Tree Multiplier for error-resilient systems
14. An efficient hardware based MAC design in digital filters with complex numbers
15. A Novel Parallel Multiplier for 2's Complement Numbers Using Booth’s Recoding Algorithm
16. ASIC Design of Reversible Multiplier Circuit

**OTHERS**

17. All Optical Reversible Multiplexer Design Using Mach-Zehnder Interferometer
18. VLSI Implementation of an Adaptive Edge-Enhanced Image Scalar for Real-Time Multimedia Applications

19. Embedded Transition Inversion coding with low switching activity for serial links

**NS2 2014 IEEE Papers**

1. CAH-MAC: Cooperative ADHOC MAC for Vehicular Networks
2. RBTP: Low-Power Mobile Discovery Protocol through Recursive Binary Time Partitioning
3. ALBA-R: Load-Balancing Geographic Routing Around Connectivity Holes in Wireless Sensor Networks
4. An Energy-Balanced Routing Method Based on Forward-Aware Factor for Wireless Sensor Networks
6. Throughput-Aware Routing for Industrial Sensor Networks: Application to ISA100.11a
8. MAC Protocols for Cooperative Diversity in Wireless LANs and Wireless Sensor Networks
10. VeMAC: A TDMA-Based MAC Protocol for Reliable Broadcast in VANETs
12. VSPN: VANET-Based Secure and Privacy-Preserving Navigation
13. Probability Distribution of End-to-End Delay in a Highway VANET
14. Two-dimensional location of moving targets within local areas using WiFi-based multistate passive radar
15. Convergence of MANET and WSN in IoT Urban Scenarios
16. STARS: A Statistical Traffic Pattern Discovery System for MANETs
17. PSR: A Lightweight Proactive Source Routing Protocol For Mobile Ad Hoc Networks
18. Neighbor Table Based Shortcut Tree Routing in ZigBee Wireless Networks
19. A QoS-Oriented Distributed Routing Protocol for Hybrid Wireless Networks
20. Data Density Correlation Degree Clustering Method for Data Aggregation in WSN
22. Path Planning Algorithm for Mobile Anchor-Based Localization in Wireless Sensor Networks
23. Distributed Deployment Algorithms for Improved Coverage in a Network of Wireless Mobile Sensors
26. Location-Aware Chord-Based Overlay for Wireless Mesh Networks
27. Joint Routing and Medium Access Control in Fixed Random Access Wireless Multihop Networks
28. Autonomous Mobile Mesh Networks
29. Efficient Location Privacy-Aware Forwarding in Opportunistic Mobile Networks.