

# **NCCT**

**Promise for the Best Projects**

**EMBEDDED SYSTEMS**

**MICROCONTROLLERS**

**ATMEL | PIC | ARM**

# **IEEE PROJECTS**

**in various Domains**

**Latest Projects, 2009 - 2010**

**#109, 2<sup>nd</sup> Floor, Bombay Flats, Nungambakkam High Road**

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**Above IOB, Next to ICICI**

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## **PROJECT SUPPORTS & DELIVERABLES**

- **PROJECT ABSTRACT**
- **IEEE PAPER**
- **PPT / REVIEW DETAILS**
- **PROJECT REPORT**
- **WORKING PROCEDURE/SCREEN SHOTS**
- **MATERIALS & BOOKS IN CD**
- **PROJECT CERTIFICATION**

**All available Project  
Details in CD / DVD\***

**REAL TIME WORKING  
KIT / MODEL**

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- **A Novel Vehicle Safety Model: Vehicle Speed Controller under Driver Fatigue – 2009**
- **A Portable Wireless Eye Movement-Controlled Human-Computer Interface for the Disabled - 2009**
- **A Low-Cost Solution for an Integrated Multisensor Lane Departure Warning System – 2009**
- **A Robust Eye Gaze Tracking Method based on a Virtual Eyeball Model – 2009**
- **Bus Detection Device for the Blind using Passive RFID Application – 2009**
- **Car Park System: A Review of Smart Parking System and its Technology – 2009**
- **Research of Traffic Signal Light Intelligent Control System based on Microcontroller – 2009**
- **The Role of Zigbee Technology in Future Data Communication System – 2009**
- **Boarding School Students Monitoring Systems (E-ID) Using Radio Frequency Identification - 2009**
- **A Unified Framework of Data Exchange Mechanism in an Intelligent Transportation System – 2009**
- **Providing Group Tour Guide by RFIDs and Wireless Sensor Networks – 2009**
- **Multisensor Strategies to Assist Blind People: A Clear-Path Indicator – 2009**
- **Real-Time Pedestrian Detection and Tracking at Nighttime for Driver-Assistance Systems – 2009**

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- A single-camera feature-based vision system for helicopter autonomous landing - 2009
- A Smart Car Control Model for Brake Comfort Based on Car Following - 2009
- A Single-Chip CMOS Smoke and Temperature Sensor for an Intelligent Fire Detector – 2009
- A Web Service-based Alarm Solution in a TeleCare System – 2009
- Design & Development of a GSM Based Vehicle Theft Control System - 2009
- Design and Assessment of an Online Passenger Information System for Integrated Multimodal Trip Planning – 2009
- Design and Implementation of Real Time Vehicle Tracking System – 2009
- A Wireless Data Acquisition and Transmission System Design - 2009
- A Zigbee and Zigbee-to-IR Device Control Scheme for Single Media Multi Devices – 2009
- Application of Zigbee for Pollution Monitoring Caused by Automobile Exhaust Gases – 2009
- A Remote Compact Sensor for the Real-Time Monitoring of Human Heartbeat and Respiration Rate - 2009
- A Path Following Control of an Unmanned Autonomous Forklift – 2009

**We will also Design &  
Develop your Own  
Project Concepts &  
Ideas / Requirements**

**New IEEE Projects  
can also be  
implemented**

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- **A multi-robot coordination system based on RFID technology – 2009**
- **A Fast Onboard Relative Positioning Module for Multi robot Systems – 2009**
- **A Low-Cost Wireless Sensor System and Its Application in Dental Retainers – 2009**
- **A New Telemedicine System for the Home Monitoring of Lung Function in Patients with Obstructive Respiratory Diseases – 2009**
- **A Novel Discrete Dimming Ballast for Linear Fluorescent Lamps – 2009**
- **An Internet-Based Interactive Embedded Data-Acquisition System for Real-Time Applications - 2009**
- **Assessment of Changes in Upper Airway Obstruction by Automatic Identification of Inspiratory Flow Limitation During Sleep - 2009**
- **Body Temperature and Electrocardiogram Monitoring Using an SMS-based Telemedicine System – 2009**
- **Bluetooth Data Acquisition System Based on ARM - 2009**
- **Cost Effective GPS-GPRS based Object Tracking System – 2009**
- **Design and Development of ARM Processor based Web Server – 2009**
- **Design and Realization of Wireless Sensor Network Gateway Based on ZigBee and GPRS – 2009**
- **Design of Software Services for Computer-based Infection Control and Antibiotic Management in the Intensive Care Unit – 2009**

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- Distributed Sensor for Steering Wheel Grip Force Measurement in Driver Fatigue Detection – 2009
- Web-Based Caregiver Monitoring System for Assisting Visually Impaired People – 2009
- Wireless Medical Interface using ZigBee and Bluetooth Technology - 2009
- Wireless communications in networked robotics – 2009
- The Mobile ECG Telemonitoring System based on GPRS and GPS – 2009
- Travel time prediction under heterogeneous traffic conditions using global positioning system data from buses – 2009
- The Tire as an Intelligent Sensor – 2009
- The integrated unit for MEMS based Pressure measurement – 2009
- Electronic Nose Network System for Online Monitoring of Livestock Farm Odors – 2009
- Environmental identification based on changes in sensory information - 2009
- Human Recognition using RFID Technology and Stereo Vision – 2009

## Why NCCT

- On time Completion
- Complete Support
- Excellent Guidance
- Flexibility

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- **Humanoid tele operation system for space environments - 2009**
- **IMM-Based Lane-Change Prediction in Highways with Low-Cost GPS/INS – 2009**
- **Implantable Myoelectric Sensors (IMESs) for Intramuscular Electromyogram Recording – 2009**
- **Improve Communication Efficiency for the Physiological Information Monitor System Based on Zigbee – 2009**
- **Mobile RFID Tag Detection Influence Factors and Prediction of Tag Detectability – 2009**
- **Mobile robots in Mine Rescue and Recovery – 2009**
- **Mobile Health Monitoring Through Biotelemetry – 2009**
- **Multisensor Strategies to Assist Blind People: A Clear-Path Indicator – 2009**
- **Monitoring of an Aeroponic Greenhouse with a Sensor Network – 2009**
- **Ontology Alignment in RFID Privacy Protection - 2009**
- **Opportunistic Medical Monitoring using Bluetooth P2P networks - 2009**
- **Performance Analysis of Multimodal Biometric System Authentication – 2009**
- **Multistage Waveform Coding for Voice Communication Over Zigbee Networks – 2009**
- **Preliminary Infrastructure Development for Greenhouse Accounting of Malaysian Rainforest using Wireless Sensor Network – 2009**

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- **Research and Development of the Remote I/O Data Acquisition System Based on Embedded ARM Platform - 2009**
- **Research on Embedded Data Display unit based on CAN Bus – 2009**
- **RFID tag bearing estimation for mobile robot localization – 2009**
- **RFID based People Management System using UHF Tags - 2009**
- **Robust Sensor-Based Navigation for Mobile Robots – 2009**
- **Real- Time Monitoring and Pre-alarm System for Dangerous Mountains in the Railway Line - 2009**
- **Real-time audio-visual calls detection system for a Chicken Robot - 2009**
- **Sensor Networks for Industrial Applications – 2009**
- **Security Architecture for RFID Application in Home Environment – 2009**
- **Security Management System for Oilfield Based on Embedded Wireless Communication - 2009**
- **Sleep and Wake Classification with ECG and Respiratory Effort Signals – 2009**
- **Stability Of Networked Control Systems with Uncertain Time-Varying Delays – 2009**
- **Swarm Robot Synchronization using RFID Tags – 2009**
- **Speed and position Control of Autonomous Mobile Robot on Variable Trajectory Depending on its Curvature – 2009**
- **Simple sensors provide inputs for cognitive robots – 2009**
- **Qualitative Vision-Based Path Following – 2009**

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- **Solar Power Generation using SPS and Wireless Power Transmission – 2009**
- **Development of Energy Management and Warning System for Resident: An Energy Saving Solution – 2009**
- **Development of a Tilt Measurement Unit using Microelectromechanical System Accelerometer - 2009**
- **Remote-Controllable and Energy-Saving Room Architecture based on ZigBee Communication – 2009**
- **Fuzzy Logic based Control of Variable Speed Induction Machine Wind Generation System – 2009**
- **New Power Quality Solutions Especially Designed for Industrial Applications – 2009**
- **Home Appliance Energy Monitoring and Controlling based on Power Line Communication – 2009**
- **Power Quality Monitoring Controlled Through Low-Cost Modules – 2009**
- **Load Shedding based Resource Management Techniques for RFID Data – 2009**
- **A Bridgeless PFC Boost Rectifier with Optimized Magnetic Utilization – 2009**
- **A Compensation Technique for Smooth Transitions in a Non Inverting Buck–Boost Converter – 2009**
- **A Fuzzy Logic based Supervisory Hierarchical Control Scheme for Real Time Pressure Control – 2009**
- **Z-Source Inverter for Power Conditioning and Utility Interface of Renewable Energy Sources – 2009**

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- **A New PWM Strategy to Reduce the Inverter Input Current Ripples – 2009**
- **A Novel Low-Loss Modulation Strategy For High-Power Bi-Directional Buck - Boost Converters – 2009**
- **A Novel Technique of Flow Measurement for a Conducting Liquid - 2009**
- **A Practical Switching Loss Model for Buck Voltage Regulators – 2009**
- **A Review of Non-Isolated High Step-Up DC/DC Converters in Renewable Energy Applications – 2009**
- **A Study of New Techniques of Controlled PWM Inverters – 2009**
- **AI based Design of a Fuzzy Logic Scheme for Speed Control of Induction Motors using SVPWM Technique – 2009**
- **An Interleaved Boost Converter with Zero-Voltage Transition – 2009**
- **An Efficient Active LC Snubber for Forward Converters – 2009**
- **An introduction to I2C and SPI protocols - 2009**
- **Applications of Short-Range Wireless Technologies to Industrial Automation: A Zigbee Approach - 2009**
- **Zero-Voltage Transition Current-Fed Full-Bridge PWM Converter- 2009**
- **CAN- Based Synchronized Motion Control for Induction Motors - 2009**
- **Capacitance and Inductance Sensor Circuits for Detecting the Lengths of Open- and Short-Circuited Wires – 2009**

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- **Capacitor Ripple Current in an Interleaved PFC Converter – 2009**
- **Comprehensive Approach to Modeling and Simulation of Photovoltaic Arrays - 2009**
- **Current Self-Balance Mechanism in Multiphase Buck Converter – 2009**
- **Control and Protection of Power Electronics Interfaced Distributed Generation Systems in a Customer-Driven Microgrid – 2009**
- **Closed-Loop Modeling in Future Automation System Engineering And Validation - 2009**
- **Design and Control for a Charge-Regulated Fly Back Switch-Mode Rectifier – 2009**
- **Digital Control of Resonant Converters: Enhancing Frequency Resolution by Dithering – 2009**
- **Very-High-Frequency Resonant Boost Converters – 2009**
- **Direct Yaw Moment Control of an In-Wheel-Motored Electric Vehicle based on Body Slip Angle Fuzzy Observer - 2009**
- **Dual-Current Pump Module for Transient Improvement of Step-Down Dc–Dc Converters – 2009**
- **Dynamic Integration of Zigbee Home Networks Into Home Gateways Using Osgi Service Registry - 2009**
- **Dynamics of Multilevel Inverter based Series Compensator for Transmission Lines – 2009**
- **Extending the Modeling Framework for Wind Generation Systems: RIS-Based Paradigm for Performance Under High Turbulence Inflow - 2009**

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- **Energy Efficient Control of Three-Phase Induction Motor – A Review – 2009**
- **Embedded Web Server for Wireless Sensor Networks – 2009**
- **Family Of Soft-Switching Pwm Converters with Current Sharing In Switches – 2009**
- **Fuzzy Multi-State Allocation of the Diesel Engine Fuel Supply System – 2009**
- **Global and Local Chassis Control based on Load Sensing – 2009**
- **Improved Z-Source Inverter With Reduced Z-Source Capacitor Voltage Stress and Soft-Start Capability – 2009**
- **Light-Load Efficiency Improvement for Buck Voltage Regulators – 2009**
- **Lossless Inductor Current Sensing Method with Improved Frequency Response – 2009**
- **New Method Of Saving Energy for Automobiles – 2009**
- **Novel Nine-Switch PWM Rectifier-Inverter Topology for Three-Phase UPS Applications – 2009**
- **On-Body Inertial Sensing and Signal Processing for Clinical Assessment of Tremor - 2009**
- **Bridge Converter for Low-Output-Voltage High-Output-Current Applications-2009**
- **Passive and Self-Powered Autonomous Sensors for Remote Measurements – 2009**
- **Research on Measuring Equipment of Single-phase Electricity-Stealing with Long-distance Monitoring Function – 2009**

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- **Research on Zigbee Wireless Sensors Network based on ModBus Protocol – 2009**
- **Resonant Contact Less Energy Transfer with Improved Efficiency – 2009**
- **Loop Daisy Chaining Application Method – 2009**
- **Reversing Radar System based on CAN Bus – 2009**
- **Robust Control of DC Motor using Fuzzy Sliding Mode Control with PID Compensator – 2009**
- **Semi-Digital Interleaved PFC Control with Optimized Light Load Efficiency – 2009**
- **Single-Loop Current Sensor Less Control for Single-Phase Boost-Type SMR – 2009**
- **Single-Phase Multilevel Pwm Inverter Topologies Using Coupled Inductors – 2009**
- **Single-Stage Soft-Switching Converter with Boost Type of Active Clamp for Wide Input Voltage Ranges – 2009**
- **Space Vector Pulse Width Modulation based Speed Control of Induction Motor using Fuzzy PI Controller – 2009**
- **Speed-Sensorless, Adjustable-Speed Induction Motor Drive based on Dc Link Measurement – 2009**
- **An Enhanced parking lot service model using wireless sensor network - 2008**
- **An Intelligent Mobile Robot Navigation Technique Using RFID Technology – 2008**
- **ASSIST – Automated System for Surgical Instrument and Sponge Tracking – 2008**

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- **Automated Vehicles For Physically and Visually Challenged - - 2008**
- **Automatic control of students' attendance in classrooms using RFID – 2008**
- **Design of a Semi-Autonomous Parking Assist System – 2008**
- **Detection of Hazardous Driving Behavior using Fuzzy Logic – 2008**
- **Detecting Driver Drowsiness using Computer Vision Techniques – 2008**
- **Detection and Recognition of End-of-Speed-Limit and Supplementary Signs for Improved European Speed Limit Support – 2008**
- **Development of a Module based Platform for Mobile Robots – 2008**
- **Development of pedestrian-to-vehicle communication system prototype for pedestrian safety using both wide-area and direct communication – 2008**
- **Using RFID Technology to Develop an Attendance System and Avoid Traffic Congestion around Kindergartens – 2008**
- **Automatic System for Measuring & Controlling the Length of a Moving Product in Industries - 2008**
- **Autonomous Driving in a Multi-Level Parking Structure – 2008**
- **Embedded Vehicle Control System Based on Voice Processing Technologies - 2008**
- **EnerBee – Example of an Advanced Metering Infrastructure based on Zigbee – 2008**

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- **Fingerprinting Passports – 2008**
- **Breathing Detection: Towards a Miniaturized, Wearable, Battery-Operated Monitoring System -2008**
- **Centralized Monitoring System for Call Taxies (ARM based) - 2008**
- **Coal Mine Detect and Rescue Robot Design and Research – 2008**
- **Automated Phone Capture of Diabetes Patients Readings / Consultant Monitoring via the Web - 2008**
- **Context-Aware Wireless Sensor Networks for Assisted-Living and Residential Monitoring – 2008**
- **A Fuzzy Controller for Autonomous Negotiation of Stairs by a Mobile Robot with Adjustable Tracks – 2008**
- **A Blind Navigation System Using RFID for Indoor Environments– 2008**
- **A Mobile Electronic Toll Collection for E-Commerce Applications – 2008**
- **A New Method of Infrared Sensor Measurement for Micromouse Control to Deliver Drugs – 2008**
- **An On-line Monitoring System of Temperature of Conductors and Fittings Based on GSM SMS and Zigbee – 2008**
- **A Low Cost GSM/GPRS based Wireless Home Security System – 2008**
- **An Implementation of an Underground Wireless Sensor Network using Zigbee – 2008**
- **An integrated Zigbee automation system: An energy saving solution – 2008**

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- **An Ear-Lead ECG based Smart Sensor System with Voice Biofeedback for Daily Activity Monitoring - 2008**
- **An Efficient Solar Energy Harvester for Wireless Sensor Nodes – 2008**
- **A Low-Cost Intelligent Gas Sensing Device for Military Applications – 2008**
- **A Clustered Real-Time Remote Monitoring System for Out-of-Hospital Cardiac Patients - 2008**
- **A Comparative Analysis of RFID Adoption in Retail & Manufacturing Sectors - 2008**
- **A Distributed Measurement System to Estimate Plant Water Content in Agricultural Fields based on Wireless Sensor Networks – 2008**
- **A novel robot system for surface inspection and diameter measurement of large size - 2008**
- **A Phone for Human Activity Recognition using Triaxial Acceleration Sensor – 2008**
- **A Portable Intelligent ECG Monitor based on Wireless Internet and Embedded System Technology – 2008**
- **A safety critical network for distributed smart traffic signals – 2008**
- **A Simple Capacitive Security Card System - 2008**
- **A wireless escape system for industrial accidents using Ad Hoc positioning – 2008**
- **A tactile System for Informing the Blind on Direction of a Walk – 2008**

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- **A task planner for a dual-arm robot: A geometric formulation - 2008**
- **A wireless network based on the combination of Zigbee and GPRS - 2008**
- **A Wireless Network System for Automated Tracking of Construction Materials on Project Sites – 2008**
- **A Distributed Remote Monitoring System based on ARM for Production Lines –2008**
- **A Methodology for Implementation the CPAC Approach to Path Tracking with Six-DOF Robotic Manipulators – 2008**
- **Design and Implementation of Home Automation System – 2008**
- **Design of an RFID-Based Battery-Free Programmable Sensing Platform – 2008**
- **Electronic Medical Record for Effective Patient Monitoring Database – 2008**
- **Efficient Cost-Based Tracking of Scheduled Vehicle Journeys – 2008**
- **Distributed Real-Time Railway Simulator – 2008**
- **Driving Guidance System Based on Wireless Sensor Network – 2008**
- **Dynamic Traffic Light Sequence Algorithm using RFID - 2008**
- **E-Inclusion Technologies for the Speech Handicapped – 2008**
- **Fingerprint Authentication System using a Low-Priced Webcam – 2008**
- **Fingerprint Authentication using Back-Propagation Algorithm – 2008**

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- **Forest Fire Detection System based on a Zigbee Wireless Sensor Network – 2008**
- **Framework for Pervasive Health Monitoring – 2008**
- **GPS-based Vehicle Tracking System-on-Chip – 2008**
- **GSM based Secured ATM Banking - 2008**
- **GSM-based Notification Speed Detection for Monitoring Purposes - 2008**
- **GPS-Based Path Following Control for a Car-Like Wheeled Mobile Robot With Skidding and Slipping - 2008**
- **GSM / GPRS based Wireless Motion Detection System using PIR Sensor – 2008**
- **Hydraulic Simulation and Remote Control System of Field Robot – 2008**
- **Implementation Of a CAN-Based Multi Controller Digital Driving System for a Vehicle - 2008**
- **Implementation of Obstacle Avoidance and ZigBee Control Functions for Omni Directional Mobile Robot - 2008**
- **Indoor Autonomous Navigation of Blind Persons using RFID Sensing Robots – 2008**
- **Integration of RFID and Wireless Sensor Networks – 2008**
- **Integration of Terrestrial Laser Scanner for Ground Navigation in GPS-Challenged Environments – 2008**
- **Interactive Object Acquisition based on Robot Technology Middleware (RTM) for 3 – Axis Robot – 2008**
- **Location-based System for Mobile Devices using RFID – 2008**

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- **Micro-Controller based Remote Monitoring using Mobile through Spoken Commands – 2008**
- **Measuring and Transmitting Vital Body Signs using MEMS Sensor - 2008**
- **Mobile Hacking Prevention and Theft Detection using GSM & GPS Technology - 2008**
- **Mobile Messaging Services based personal Electrocardiogram Monitoring System – 2008**
- **Mobile Web Server for Elderly People Monitoring - 2008**
- **Networked Wireless Meter Reading System based on Zigbee Technology - 2008**
- **Neural Network Based Efficient Knowledge Discovery in Hospital Databases Using RFID Technology - 2008**
- **Parking Guidance System Based on Wireless Sensor Network – 2008**
- **Path Planning Automated Guided Robot – 2008**
- **Patient Monitoring using GSM & Zigbee for Hospitals & Old age Homes – 2008**
- **PGS: Parking Guidance System based on Wireless Sensor Network – 2008**
- **Pinpointing the Place of Origin of a Cellular Phone Emergency Call Using Active RFID Tags - 2008**
- **Policy and Role based Mobile RFID User Privacy Data Management System– 2008**

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- **Real-Time, Automatic Animal Tracking using Direct Sequence Spread Spectrum – 2008**
- **Real-time Bluetooth communication system for control of a mobile robot - 2008**
- **Real-Time Control of a Two-Wheeled Inverted Pendulum Mobile Robot – 2008**
- **Remote Controlling of Home Appliances using Mobile Telephony – 2008**
- **Remote Data Capture, Acquisition and Sending SMS to Remote Mobile - 2008**
- **RFID application strategy and Deployment in Bike Renting system - 2008**
- **RFID based Vehicle Number Tracking and Traffic Monitoring - 2008**
- **Robotic Software Architecture for Multi-sensor Fusion System - 2008**
- **Robust and Accurate Surface Measurement Using Structured Light - 2008**
- **Robust and Efficient Password-Authenticated Key Agreement using Smart Cards or Campus Management - 2008**
- **Shortest Path Finding using GPS based Navigation System in Critical Situation – 2008**
- **SIP-RLTS: An RFID Location Tracking System based on SIP – 2008**
- **The Research and Development of the Highway Electronic Toll Collection System – 2008**

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- The measurement of oxygen saturation in arterial and venous blood - 2008
- Tamper Detection in RFID-Enable Supply Chains – 2008
- Three-Dimensional Password for More Secure Authentication - 2008
- Traffic Management by Constant Time to Collision – 2008
- Train Auto Control System based on OSGi - 2008
- Transport Security using Mobile Technology - 2008
- Travel time prediction under heterogeneous traffic conditions using global positioning system data from buses - 2008
- USB Sensor Network for Industrial Applications - 2008
- Wireless Sensor Networks for Resources Tracking at Building Construction Sites – 2008
- Wireless Sludge Level Monitoring based on Bluetooth Sensing Nodes – 2008
- Visual Servo Control of a Three Degree of Freedom Robotic Arm System – 2008
- Walking Hexapod Robot in Disaster Recovery: Developing Algorithm for Terrain Negotiation and Navigation – 2008
- Web based Personal Health Systems – Models and Specifics – 2008
- Wheelchair Type Biomedical System with Event-Recorder Function - 2008
- Wireless Healthcare Monitoring System for Home – 2008

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- **Wireless Sensor Network for Wearable Physiological Monitoring – 2008**
- **Wireless Network for Measurement of Whole-Body Vibration – 2008**
- **Wireless Reprogramming of Vehicle Electronic Control Units - 2008**
- **Zigbee for Intelligent Transport system applications - 2008**
- **Zigbee source route technology in Home application - 2008**
- **ZigBee WiMAX Nursery System for patient monitoring - 2008**
- **Zigbee Wireless Vehicular Identification and Authentication System – 2008**
- **Zigbee-based Alarm System for Pervasive Health Care in Rural Areas – 2008**
- **ZigBee Based Wireless Sensor Networks and Its Applications in Industrial - 2008**
- **ZigBee Device Access Control & Reliable Data Transmission in ZigBee Based Health Monitoring System - 2008**
- **Zigbee Device Access Control and Reliable Data Transmission in Zigbee based Health Monitoring System – 2008**
- **A Fuzzy Logic Controlled Sliding Mode Control (SMC) of Inverter in Shunt Active Power Filter for Power Quality Improvement – 2008**
- **A CAN based Distributed Control System for Autonomous All-Terrain vehicle (ATV) – 2008**
- **A Novel Automatic Utility Data Collection System using IEEE 802.15.4 – Compliant Wireless Mesh Networks - 2008**

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Promise for the best Projects

- **A Novel Zero Voltage Transition Synchronous Buck Converter for Portable Application – 2008**
- **Adaptive Rate Control Low Bit-Rate Video Transmission Over Wireless Zigbee Networks – 2008**
- **Defect Prevention and Detection in Software for Automated Test Equipment - 2008**
- **Design & Implementation of Short Message Query System using GSM Modem – 2008**
- **Design and Implementation of PLC-based Monitoring Control System for Three-Phase Induction Motors Fed by PWM Inverter – 2008**
- **Design of an Intelligent Bi-Directional DC-DC Converter with Half Bridge Topology – 2008**
- **Direct Torque Neuro Fuzzy Speed Control of an Induction Machine Drive based on a New Variable Gain PI Controller – 2008**
- **Embedded Controlled Z Source Inverter Fed Induction Motor Drive – 2008**
- **Estimation of travel time using fuzzy clustering metho - 2008**
- **Improving Speed Control of Induction Motors through Fuzzy-SMC-PI Control – 2008**
- **Instrumentation notes - Distributed measurement systems-A web system approach - 2008**
- **Multi-Input Fuzzy Logic Controller for Brushless DC Motor Drives – 2008**
- **Modeling of Indoor power line for Substation monitoring using Broadband Power line Communications – 2008**

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- **Microcontroller based Standalone PV system for Wireless Sensor Node - 2008**
- **Operational Analysis and Comparative Evaluation of Embedded Z-Source Inverters – 2008**
- **Performance of an Industrial Data Communication Protocol on Ethernet Network - 2008**
- **Remote Power ON/OFF control & current measurement for Home Electric Outlets based on a Low Power Embedded Board & Zigbee communication - 2008**
- **Remote Sensing and Control of an Irrigation System using a Distributed Wireless Sensor Network - - 2008**
- **Smart Configurable Wireless Sensors and Actuators for Industrial Monitoring and Control – 2008**
- **Smart Wireless Temperature Data Logger Using IEEE 802.15.4/ZigBee Protocol - 2008**
- **Soft Switched AC-Link AC/AC and AC/DC Buck-Boost Converter – 2008**
- **Software/hardware co-design of a vehicle trajectory monitoring system – 2008**
- **A Hands Gesture System of Control for an Intelligent Wheelchair – 2007**
- **The Electronic Passport and the Future of Government Issued RFID based Identification – 2007**
- **RF Controller Development and Its Application in Intelligent Transport system – 2007**
- **A RFID System to Help Visually Impaired People in Mobility – 2007**

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- **An RFID based Pilgrim Identification System – 2007**
- **Adaptive Car Safety System – 2007**
- **Wearable Physiological Monitoring System using 2.4Ghz RF Transceiver – 2007**
- **An autonomous surveillance and security robot team - 2007**
- **An Infant Monitoring System Using CO / sub 2 / Sensors – 2007**
- **An Electronic Meter for Measuring the Saving in Electrical power – 2007**
- **A Sensor for urban Driving Assistance Systems based on Dense Stereovision – 2007**
- **Develop a Multiple Interface Based Fire Fighting Robot – 2007**
- **Development of Autonomous Robotic Wheelchair Controller Using Embedded – 2007**
- **Development of a Person Following Mobile Robot in Complicated Background by Using Distance and Color Information - 2007**
- **Extended Health Visibility in the Hospital Environment – 2007**
- **Face Detection using PCA and Skin-Tone Extraction for Drowsy Driver Application – 2007**
- **A Wireless Sensor Network Prototype for Environmental Monitoring in Greenhouses – 2007**
- **Processor Customization for Wearable Bio-Monitoring Platforms – 2007**
- **Parking Guidance System using RFID and Image Processing Techniques in WSN Environment – 2007**

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- **The design and implementation of an autonomous campus patrol robot - 2007**
- **The Design of Vehicle emergent calling system based on GPRS - 2007**
- **Shopping Path Analysis and Transaction mining based on RFID Technology – 2007**
- **Robust on-Vehicle Real-Time Visual Detection of American and European Speed Limit Signs, with a Modular Traffic Signs Recognition System - 2007**
- **Custom wireless sensor network based on Zigbee - 2007**
- **Challenge: Peers on Wheels – A Road to New Traffic Information System – 2007**
- **Design of Air pollution monitoring system using Zigbee n/w for Ubiquitous-city – 2007**
- **Design and Implementation of Internet Based Healthcare Robot System - 2007**
- **Design and Implementation of ZigBee based URC Applicable to Legacy Home Appliances – 2007**
- **Design, Implementation and Real-Time Digital Control of a Cart-Mounted Inverted Pendulum using Atmel AVR Microcontroller – 2007**
- **Home based Healthcare Monitoring over Wireless Biomedical Sensor Network – 2007**

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- **MeshEye: A Hybrid – Resolution Smart Camera Mote for Applications in Distributed Intelligent Surveillance – 2007**
- **Intelligent Fleet Management System with Concurrent GPS & GSM - 2007**
- **Intelligent Vehicular Transportation System (In Ve Tras) – 2007**
- **Localization in Zigbee based Sensor Networks – 2007**
- **Implementation of an Automatic Fingerprint Identification System – 2007**
- **Measurement of ECG, Respiratory Rate, Tilt and Temperature of a Patient and Wireless Zigbee Data Transmission – 2007**
- **Automatic Power Meter Reading system using GSM Network – 2007**
- **Transportation Quality Monitor Using Sensor Active RFID - 2007**
- **Using Fuzzy Logic in Automated Vehicle Control – 2007**
- **Ultra Low Power Wireless weather Station – 2007**
- **The Vitals Signs Data Monitoring via GPS Navigation System – 2007**
- **NCCU Security Warrior: An Intelligent Security Robot System - 2007**
- **Predicting Parking Lot Occupancy in Vehicular Ad Hoc Networks – 2007**
- **Realization of Home remote control network based on Zigbee – 2007**

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- **Wireless Stand-Alone Portable Patient Monitoring and Logging System – 2007**
- **Zigbee based wireless sensor network and its application in Industrial – 2007**
- **Wireless Access Monitoring and Control System based on Digital Door Lock - 2007**
- **Zigbee for Building Control Wireless Sensor Networks – 2007**
- **An Integrated Zigbee Automation System: An Energy Saving Solution – 2007**
- **Performance Evaluation of Bridgeless PFC Boost Rectifiers – 2007**
- **Network Characteristics of Urban environments for Wireless BAN – 2007**
- **Multibus Integration Design in Conveyor Control System – 2007**
- **Fuzzy Logic Control for a Speed Control of Induction Motor using Space Vector Pulse Width Modulation – 2007**
- **Fuzzy Controller Designed by GA for Two-Wheeled Mobile Robots – 2007**
- **Fuzzy Logic Control of Induction Motor with Input Output Feedback Linearization – 2007**
- **Improving the Power Density of the ZVS-SVM Controlled Three-Phase Boost PFC Converter – 2007**
- **Integrating Fingerprint with Cryptosystem for Internet based Live Pay-TV System – 2007**

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- **A New Parameter for UWB Indoor Channel profile Identification – 2007**
- **A Novel Soft-Switching Single-Phase AC-DC-AC Converter using New ZVS-PWM Strategy – 2007**
- **A Practical Approach to Wireless GPRS On-Line Power Quality Monitoring System – 2007**
- **Fault Detection in Internal Combustion Engines using Fuzzy Logic – 2007**
- **A ZigBee-Based Power Monitoring System with Direct Load Control Capabilities - 2007**
- **Accuracy, Fast-Response, Cost-Efficient Solar Cell Regulator Suitable for Low-Power Applications**
- **Adaptive Neuro-Fuzzy Controller of Switched Reluctance Motor – 2007**
- **Utilizing RFID Signaling Scheme for Localization of stationary Objects and Speed Estimation of Mobile Objects – 2007**
- **Vibration Suppression using Single Neuron based PI Fuzzy Controller and Fractional Order Disturbance Observer – 2007**
- **An Integrated Inverter for a Single-Phase Single-Stage Grid-Connected PV System based on Z-Source – 2007**
- **Biometric Mobile Template Protection: A Composite Feature based Fingerprint Fuzzy Vault – 2007**
- **Concurrent Relay-PID Control for Motor Position Servo Systems – 2007**

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- **A Framework for Patient Monitoring – 2006**
- **Modular Sensor Processing for Robotics based Security in Hazardous Environments – 2006**
- **Moth-Inspired Chemical Plume Tracing on an Autonomous Underwater Vehicle – 2006**
- **MERMAID – Multiple Robot Middleware for Intelligent Decision-Making – 2006**
- **Fuzzy Logic Controller for Two-Mode Parallel Hybrid Electric Vehicle – 2006**
- **Fingerprint Verification for Control of Electronic Blast Initiation – 2006**
- **Development of a Multimode Navigation System for an Assistive Robotics Project – 2006**
- **Design of an RFID / Zigbee Network for Blind Navigation – 2006**
- **Digital Radar for Collision Avoidance and Automatic Cruise Control in Transportation – 2006**
- **Development of Zigbee based Street Light Control System – 2006**
- **IntelliCarTS: Intelligent Cars Transportation System – 2006**
- **The Case for Multi-Tag RFID Systems – 2006**
- **Semi-Autonomous Teleoperation of Multiple Cooperative Robots for Human-Robot lunar Exploration – 2006**
- **System Architecture of a Wireless Body Area Sensor Network for Ubiquitous Health Monitoring – 2006**

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- Remote Wireless Face Recognition Employing Zigbee – 2006
- RoboCupRescue – Robot league team IUB Rescue – 2006
- Remote Non-Intrusive Patient Monitoring – 2006
- The Dynamic Control of a Switched Reluctance Drive using Fuzzy Logic – 2006
- The Future of Robot-Assisted Learning in the Home – 2006
- A Review of Multilevel Power Converters – 2006
- BLDC Motor Controlled using Resonant Pole Inverter with Variable Pulse Width Method – 2006
- Applying Modified One-Comparator Counter based PWM Control Strategy to Flyback Converter – 2006
- An Ultra Wearable, Wireless, Low Power ECG Monitoring System – 2006
- Car-to-Car Communication – 2006
- Conveyor Visual Tracking using robot Vision – 2006
- Wireless Sensor Networks for Patient Monitoring – 2006
- Real Time Fleet Monitoring and Security System using GSM Network – 2006
- Novel Long-Term Implantable Blood Pressure Monitoring System with Reduced Baseline Drift – 2006
- Optimum Design Consideration and Implementation of a Novel Synchronous Rectified Soft-Switched Phase-Shift Full-

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- **Direct ZVS Start-Up of a Current-Fed Resonant Inverter – 2006**
- **High-Power-Factor Soft-Switched Boost Converter – 2006**
- **Induction Motor Speed Control using Fuzzy Logic Controller – 2006**
- **Power-Efficient Pulse Width Modulation DC/DC Converters with Zero Voltage Switching Control – 2006**
- **Quick Convergecast in Zigbee/IEEE 802.15.4 Tree based Wireless Sensor Networks – 2006**
- **Radio Frequency Identification (RFID): Applications and Indian Scenario – 2006**
- **A Humanoid Robot to Prevent Children Accidents – 2005**
- **A Voice Guiding System for Autonomous Robots- 2005**
- **An Alternative Configuration for Digitally Controlled Parallel Connected DC-DC Power Converters – 2005**
- **An RFID Application for the Disabled: Path Finder- 2005**
- **An Embedded Control System for Intelligent Wheelchair – 2005**
- **Application Fields of RFID in Health Safety and Environment management – 2005**
- **Application of Wireless Protocols Bluetooth and Zigbee in Telemetry System Development – 2005**
- **Applying Unmanned Ground Vehicle Technologies to Unmanned Surface Vehicles – 2005**
- **Speech Recognition Board and Microphone – 2005**

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- **Wireless Control of Vehicle Mirror System using Head Movement and PIC Microcontroller- 2005**
- **Wireless Sensor Network based Smart Community Security Service – 2005**
- **Wireless Sensor Networks for Monitoring of Large public Buildings – 2005**
- **Development of Autonomous Robotic Wheelchair System – 2005**
- **Fingerprinting Codes for Live Pay-Television Broadcast via Internet – 2005**
- **Fuel Cell and Supercapacitors for Automotive Hybrid Electrical System – 2005**
- **Fuzzy Fingerprints for Text based Information Retrieval – 2005**
- **Fuzzy Logic Control of Vehicle Suspensions with Dry Friction Nonlinearity – 2005**
- **Home Care and Health maintenance Systems – 2005**
- **Integrated Environment for Assisted Movement of Visually Impaired – 2005**
- **Integrated Motion Control of a Wheelchair in the Longitudinal, Lateral and Pitch Directions – 2005**
- **Looking-In and Looking-Out of a Vehicle: selected Investigations in Computer Vision based Enhanced Vehicle Safety – 2005**
- **Neuro Fuzzy Controllers and Application to Autonomous Robots – 2005**

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- **Performance Analysis of a Fuzzy Logic based Rotor Resistance Estimator of an Indirect Vector Controlled Induction Motor Drive – 2005**
- **Secure and Fast Fingerprint Authentication on Smart Card – 2005**
- **Remote Physical Device Fingerprinting – 2005**
- **Sensorless PM Motor with Multi Degree of Freedom Fuzzy control – 2005**
- **The OmniTread Serpentine Robot for Industrial Inspection and surveillance – 2005**
- **Relational Interface for a Voice Controlled Wheelchair- 2005**
- **Using Fuzzy Controller in Induction Motor Speed Control with Constant Flux – 2005**
- **A Hybrid Controller Design and Implementation for Switched Reluctance Motor Drives – 2005**
- **A Fuzzy Sliding Mode Controller for a Field-Oriented Induction Motor Drive – 2005**
- **A Novel Dc-DC Full-Bridge Converter using Energy-Recovery Circuit with Regenerative Transformer – 2005**
- 
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- **A Solar-Powered Wireless Data Acquisition Network**
- **A Tele-Operated Humanoid Robot Drives a Lift Truck**
- **A TestBed for Voice based Robot Control**

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- **A Vision based Vehicle Behavior Monitoring and Warning System**
- **A Wireless based Sensor for Patient Monitoring System with Remote Diagnostic**
- **Alternative Energy storage system for Hybrid Electric Vehicles**
- **AMON: A Wearable Multiparameter Medical Monitoring and Alert System**
- **An Adaptive Fuzzy Control System for Common Rail Direct Injection**
- **An Automated Test Equipment for calibration of Energy Meters**
- **An Autonomous Assistant Robot for Book manipulation in a Library**
- **An Exoskeletal Robot Manipulator for Lower Limbs Rehabilitation**
- **An Intelligent Decision Support System for Wastewater Treatment Plant Management**
- **An Interface Converter with Reduced VA Ratings for Battery-Supercapacitor Mixed Systems**
- **An In-Vehicle Vision System for Dangerous Situation Detection**
- **ANN – Control System DC Motor**
- **Automated Vehicle Control System**
- **Autonomous Localization and Extraction of Books in a Library**
- **BlueBot: Asset tracking via Robotic location Crawling**
- **Vision based Human Tracking and Activity Recognition**

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- **Vision Control of a Robotic Hand**
- **Using Personal electronic Device for Authentication based Service Access**
- **Two Dimensional Magnetic and Thermal Analysis of High Speed Switched Reluctance Motor Using Soft Magnetic Composite Material - IEEE**
- **Ubiquitous Mobile Access to Real-Time Patient Monitoring Data**
- **Ubiquitous systems for Physical Movement Monitoring: Towards Understanding Collaborative Signal Processing**
- **Utilizing RFID signaling scheme for localization of stationary objects and speed estimation of Mobile objects**
- **Vehicular Ad Hoc Networks toward Intelligent Transport Systems – IEEE**
- **Wireless Sensor Networks and applications: A Survey**
- **Wireless Ad Hoc Discovery of Parking Meters**
- **Wireless Home Security and Automation System Utilizing Zigbee based Multi-Hop Communication**
- **Deriving and Matching Image Fingerprint Sequences fro Mobile Robot Localization**
- **Design and Implementation of a Digital Controller for DC-to-DC Power Converters**
- **Design and Implementation of a Teleautonomous Hummer**
- **Design and Implementation of an Open Autonomous Mobile Robot System**

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- **Design and Implementation of a Sensor Network System for Vehicle Tracking and Autonomous Interception – 2005**
- **Development of Fuzzy Sliding Mode Controller for Decoupled Induction Motor Drive**
- **Digital PWM Controller and Current estimator for a Low-Power Switching Converter**
- **Design and initial In-Water Testing of Advanced Non-Linear Control Algorithms onto an Unmanned Underwater Vehicle (UUV)**
- **Designing a Secure and Robust Mobile Interacting Robot for the Long Term**
- **Detection of Abnormal Movement of Industrial Robots using Image Sequence**
- **Developing Vehicles for Future Transportation Systems: Challenges & Research Directions**
- **Development of a Novel Instantaneous Speed Observer and its Application to the Power-Assisted Wheelchair Control**
- **Development of a Zigbee based Wireless Sensor Network Node for Automatic Data Acquisition and Transfer**
- **Distributed Control Applications within Sensor Networks**
- **Dual functional reconfigurable mobile robot – IEEE**
- **Electronic Control Units for Automotive Electrical Power Systems: Communication and Networks**
- **eSeal – A System for Enhanced Electronic assertion of Authenticity and Integrity**
- **Feeder Automation within the Scope of Substation Automation**

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- **Fingerprint Verification using Smart Cards for Access Control Systems**
- **Fusion of Voice, Gesture, and human-Computer Interface Controls for Remotely Operated Robot**
- **Firebot: Design of an Autonomous Fire Fighting Robot**
- **Fuzzy Adaptive Control of an Induction motor Drive**
- **Fuzzy Modelling: and Control of Marine Diesel Engine Process**
- **High Efficiency Flyback Converter using Synchronous Rectification**
- **High Robustness and Reliability of Fuzzy Logic based Position Estimation for Sensorless Switched Reluctance Motor Drives**
- **Home Networking with Zigbee**
- **Hybrid Control of Semi-Autonomous Robots**
- **Hybrid Electric Vehicle Design based on a Multi-Objective Optimization Evolutionary Algorithm**
- **Hybrid Intelligence for Driver Assistance**
- **Implementation of a VI-Based Multi-Axis Motion Control System for Automated Test and Measurement Applications - IEEE**
- **Implementing Multiple Robot Architectures using Mobile Agents**

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- Indoor Positioning and Navigation using WLAN Technology
- Model Reference Linear Adaptive Control of DC Motor Using Fuzzy Controller – IEEE
- Inventory Management using Passive RFID Tag: A Survey
- Integrated Modeling and Analysis of Computer based Embedded Control System
- Modeling of a Stair-Climbing Wheelchair mechanism with High Single Step Capability
- Modelling Pedestrains using Artificial Neural Networks
- Models for Bearing damage Detection in Induction Motors using Stator Current Monitoring
- MyBus: Helping Bus Riders Make Informed Decisions
- Navigation of Mobile Robot using Global Positioning System (GPS) and Obstacle Avoidance System with Commanded
- Neural Network Control Approach for an Industrial Furnace
- Novel Skid Avoidance Method without Vehicle Chassis Speed for Electric Vehicle
- Obstacle Avoidance of Mobile Robots using Ordinal structure Model of Fuzzy Reasoning Approach
- Oil Well Diagnosis by Sensing Terminal Characteristics of the Induction Motor
- Optically-Powered Wireless Transmitter for High-Temperature MEMS Sensing and Communications

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- **PdaDriver: A Handheld System for Remote Driving**
- **Performance Analysis of an Active Energy Induction Meter using an Innovative Approach**
- **Power Factor Improvement of Single Phase AC Voltage Controller Employing Extinction Angle Control Technique**
- **Proposal of Human-Friendly Motion Control**
- **Real-Time DC Motor Position Control by Fuzzy Logic and PID Controllers using Labview**
- **Remote Control of an Ultrasonic Motor by using a GSM Mobile Phone**
- **Remote Monitoring System for Transformer Substations**
- **RoboCart: Toward Robot-Assisted Navigation of Grocery Stores by the Visually Impaired**
- **Robust Control of a Speed Sensorless Permanent Magnet Synchronous Motor Drive**
- **Robust Speed Control of an Indirect Field-Oriented Induction Machine Drive using Fuzzy Logic Control**
- **Scalar Speed Control of a DQ Induction Motor Model using Fuzzy logic Controller**
- **Secure Smartcard based Fingerprint Authentication**

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- **Self-Trained Automated Parking System**
- **Sensing of Car Environment at Low Speed Driving**
- **SIAPAS: A Case Study on the Use of a GPS based Parking System**
- **SOLERO: Solar Powered Exploration Rover**
- **Super-Twisting Sliding Mode Control for Unified Power Flow Controller In Power Systems - IEEE**
- **Telerobotics: Through-The-Internet Teleoperation of the ABB IRB 2000 Industrial Robot**
- **The Adaptive Space Vector PWM for Four Switch Three Phase Inverter Fed Induction Motor with DC – Link Voltage Imbalance - IEEE**
- **The Blocker Tag: Selective Blocking of RFID Tags for Consumer Privacy**
- **The Smart Wheelchair Component System**
- **A Comparison of Voltage-Mode soft-Switching methods for PWM Converters**
- **A Fault-Tolerant Control Architecture for Induction Motor Drives in Automotive Applications**
- **A New Approach to ANN-Based Real Time Voltage Stability Monitoring and Reactive Power Management – IEEE**
- **A New Soft-Switched Contactless Battery Charger with Robust Local Controllers**
- **A New Visualization Concept for Navigation Systems**
- **A Novel Resonant Transition Push-Pull DC-Dc Converter**

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- A Real Time Precrash Vehicle Detection System
- A Simple Control Scheme for Single-Phase Shunt Active Power with Fuzzy Logic based DC Bus Voltage Controller –
- A Three-Level DC-Dc Converter with Wide-Input Voltage Operations for Ship-Electric-Power-Distribution Systems
- A Three-Level Single-Phase single-Stage Soft-Switched AC-DC Converter
- Comparison of Traditional Inverters and Z-Source Inverter for Fuel Cell Vehicles
- Control and Monitoring of Mobile Robot system using Bluetooth
- Control of a Simple DC Motor Robot Equipped with Ultrasonic Sensors via a Field Programmable Gate Array and a
- Custom Architecture for Fuzzy and Neural Networks Controllers

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