



# KPR INFOTECH SOLUTIONS

No.5, Balasubramaniyan Complex, Samiyar Thottam Opposite, College to Railway Road, Karaikudi-630 003.

## DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

### LIST OF PROJECTS

S. No.	Project Title
1.	IoT-Based Smart Monitoring and Predictive Maintenance System for Transformers in Power Distribution Networks
2.	An IoT-Enabled Smart Charge Control Circuit Integrated with Arduino for Real-Time Monitoring, Energy Optimization, and Automated Management
3.	An IoT-Enabled System for Remote Control and Real-Time Monitoring of Home Appliances for Enhanced Automation, Energy Management, and User Convenience
4.	Arduino-Powered Intelligent Automated Smart Parking System for Urban Environments with Real-Time Vehicle Detection, Dynamic Space Allocation, and Advanced Parking Optimization Techniques.
5.	IoT-Driven Water Quality Monitoring and Intelligent Pump Control for Real-Time Water Management
6.	Real-Time IoT-Based Smart LPG Gas Leakage Detection and Alert System for Optimized Safety and Risk Prevention in Domestic and Industrial Settings.
7.	IoT-Enabled Smart Irrigation System for Efficient Water Conservation, Crop Growth Monitoring, and Sustainable Agricultural Practices.
8.	IoT-Integrated Real-Time Environmental Monitoring System for Temperature, Humidity, and Air Quality with Real-Time Analytics and Energy Management
9.	Smart Energy Audit System Using IoT for Energy Consumption Forecasting and Real-Time Performance Optimization in Industrial Manufacturing.
10.	IoT-Based Three-Phase Power Failure Detection with Automated SMS Alerts for Uninterrupted Power Supply
11.	IOT based smart grid monitoring system electrical voltage and current monitoring
12.	IoT-Based Wireless Monitoring System for Induction Motors to Prevent Failures and Enhance Longevity
13.	IoT-Based Smart Monitoring and Predictive Maintenance System for Transformers in Power Distribution Networks
14.	Smart Password-Based Circuit Breaker with Continuous Voltage and Current Monitoring for Intelligent Electrical Fault Detection and Protection
15.	Advanced DC-Link Voltage Control for Z-Source Inverters in High-Speed Permanent Magnet Motor Systems
16.	Designing a Non-Isolated Interleaved Boost-Zeta Converter for Efficient Low Voltage Bipolar DC Microgrids
17.	Optimized Load Sharing in Autonomous Hybrid Microgrids through Interlinking Converters
18.	Advanced Solar Insolation Prediction Techniques for Reliable PV-Based DC Microgrids in Critical Load Applications"
19.	Step-Up DC-DC Converter with Ultra-Voltage Gain for Sustainable Energy Micro-Source Applications
20.	Optimized Power Quality in Grid-Connected Microgrids Using Fuzzy Type-II Controller-Based UPQC
21.	Optimal Configuration of Solid-State Transformer Interlink Converter for Hybrid

	AC/DC Microgrid Networks
22.	Optimized Battery Storage in DC Microgrids with Isolated Bi-Directional Converter Technology
23.	Adaptive Integral Sliding Mode Control for Improved Performance in Small BLDC Motors
24.	DC-Link Voltage and Current Modulation for Torque Ripple Minimization in BLDC Motor Drives
25.	PWM Strategies for Commutation Torque Ripple Reduction in Low-Inductance BLDC Motor Drives
26.	Extendable High-Boost DC-DC Converter for Solar PV Using Switched-Inductor and Capacitor-Divider Networks
27.	Optimized Control of Single-Phase Solar PV Supply Systems
28.	Dual-Stage Multilevel Inverter for Grid-Connected Solar PV Systems
29.	Precise Modeling and Control of DC/DC Converters for Rural PV Microgrid Systems through Exact Linearization
30.	VSG Control in Two-Stage Converters for Standalone PV-Battery Systems
31.	MPPT Scheme for Wind-Driven DFIG Systems Using SSM-PSO Optimization
32.	Renewable Energy Distribution Systems Using Three-Phase Isolated Multi-Modular Converters
33.	Simplified Power Regulation in a Two-Stage Single-Phase Grid-Connected Solar-PV System
34.	A Novel Six-Level Transformer-Less Solar Inverter for Grid Connection with Low Leakage Current
35.	Optimizing Distribution Systems with PV-STATCOM Applications
36.	Solar-PV Powered Reduced-Switch UPQC for Optimizing Power Quality
37.	Solar PV Array Integrated Double-Stage UPQC for Power Quality Enhancement in Three-Phase Four-Wire Systems
38.	Optimizing Power Quality Using Solar PV and UPQC
39.	Enhancing Power Quality in Solar-Powered Standalone Systems Using D-STATCOM
40.	Switched-Capacitor and Flying-Capacitor-Fed T-Type Unit for Seventeen-Level Inverter Design
41.	A Novel Nine-Level Quadruple Boost Inverter (NQBI) for Solar PV Applications
42.	Quasi-Z-Source Based DC-DC Boost Converter: Design and Performance Analysis
43.	Bi-Directional Three-Phase Z-Source Converters: Low-Harmonic Control for Vehicle-to-Grid Applications
44.	High-Boost Inversion Capability in Switched-Coupled-Inductor Z-Source Inverters
45.	Sensorless Control of Induction Machine Based on Saliency Extraction Using Single SVPWM Active State
46.	Optimizing Induction Motor Efficiency and Stability with Volts-per-Hertz Control in a Wide Frequency Range
47.	Space Vector Modulation-Based Matrix Converter for Field-Oriented Control of Five-Phase Induction Motor
48.	Self-Triggered Consensus Control Using Leader-Follower Approach for Industrial Induction Motor Drives
49.	Improved Efficiency of Direct-Drive Switched Reluctance Motors with Reconfigurable Winding Topology
50	Torque Ripple and Vibration Minimization in Switched Reluctance Motor Drives Using a Two-Step Control Approach

