

# TECHNOLOGY LEARNING CENTER

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## POWER SYSTEMS PROJECTS ON HARDWARE

- 01 Substation monitoring system (measurement of PF, voltage, current, temp.)
- 02 Transmission line multiple fault indication to substation
- 03 Automatic power factor correction using switching capacitors
- 04 Automatic power factor correction using static var compensators
- 05 Transformer oil temperature monitoring with automatic Circuit Breaker operation.
- 06 Design and construction of Earth fault relay for single phase power system
- 07 Unbalanced three phase optimal power flow for smart grids
- 08 Automatic change over for three phase connection with data logger
- 09 Automatic switching of consumer connection in distribution feeder for different load distribution
- 10 Single phasing preventer for protection of three phase (3-ph) loads
- 11 Microcontroller based Three Phase Load safety implementation with phase fault detector
- 12 An On-line Monitoring System of Transmission Line Conductor
- 13 Over voltage or under voltage tripping mechanism
- 14 Three phase fault analysis with auto reset on temporary fault and permanent trip other wise
- 15 Auto selection of any available phase in 3 phase supply system



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- 16 Renewable Energy management – Solar based lighting system with inverter and CFL lamp load
- 17 Solar pv cell tracking system for obtaining maximum power output
- 18 Solar based irrigation pumping system
- 19 Solar based LED street light system with time controlled and auto dimming based on ambient light
- 20 Solar based traffic light control system
- 21 Wireless motor starter with acknowledgement using solar energy for agricultural application
- 22 Smart Remote for controlling electrical appliance through android mobile.
- 23 Virtual nurse- controlling wheel chair through android mobile
- 24 Smart Home/office automation through android mobile.
- 25 Smart regulator for controlling fan speed through Android mobile.
- 26 AC motor speed controller through Android mobile.
- 27 Advanced street light controlling system through smart phone.
- 28 Industry/home/office automation through smart phone.
- 29 Industrial parameters monitoring system through Smartphone
- 30 Home /office/industry electrical appliances controlling by phone call and confirmation through voice feedback.
- 31 Substation monitoring and controlling system with voice alerts.
- 32 Standalone data logger in SD/MMC card with time stamp for industrial applications.



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- 33 Advanced embedded system based a paperless feedback system for colleges and event management systems
- 34 Industry parameters monitoring and controlling system based on embedded web server.
- 35 Zigbee and internet based advanced street light controlling system.
- 36 Internet based home/office automation.
- 37 Wireless Scrutinizer for Detecting the fault in Power System.
- 38 Wireless load measuring meter for power line.
- 39 Up-to-date Recording System of Power Line Losses.
- 40 Underground cable fault identification.
- 41 Two quadrant chopper drive for DC motor speed control.
- 42 Wireless motor starter with acknowledgement using solar energy for agricultural application
- 43 Four quadrant chopper drive for DC motor speed control
- 44 design of closed loop controlled DC voltage regulator using full wave semi- converter
- 45 Automatic power factor correction using switching capacitors.
- 46 Automatic power factor correction using static VAR compensators.
- 47 Design of closed loop controlled DC voltage regulator using full wave converter.
- 48 Three phase load protector with automatic fault indication using micro processor.
- 49 Thyristor based soft starter.
- 50 Unbalanced Three-phase Optimal Power Flow for Smart Grids.



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- 51 Automatic Maximum Demand Controller for Industries.
- 52 Automatic Switching of consumer connection in distribution feeder for efficient load distribution
- 53 Distribution grid transformers monitoring using GSM with forced cooling control system
- 54 Remote substation monitoring system using bidirectional power line communication.
- 55 Design of closed loop controlled DC voltage regulator using full wave converter through computer.
- 56 Design of closed loop controlled ac voltage regulator using TRIAC.
- 57 Transmission line multiple faults detection and indication to electricity board.
- 58 Power theft identification system in distribution lines using differential power measurement.
- 59 Automatic transformer shunt and series parameter calculation from open circuit and short circuit test reading.
- 60 Closed loop dc motor speed control.
- 61 Design of cyclo converter using micro controller.
- 62 Reverse power protection for generator.
- 63 Automatic transformer protection using numerical relay.
- 64 Automatic phase sequence corrector.
- 65 Design of earth fault relay.
- 66 Reactive power compensation using STACOM.
- 67 Speed control of universal motor using IGBT.



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- 68 Efficient power saver for street lights using LDR, RTC, LEDs light with solar power
- 69 Agricultural motor controlling with motor safety and water level indicator using GSM.
- 70 Automatic changeover for 3 phases connections with data logger.
- 71 Solar Tracking system for Maximum power output with real time power monitoring system.
- 72 Voice guider and medicine reminder for patients and old age persons.
- 73 Broken conductor detection for overhead lines.
- 74 Intelligent shopping trolley using RFID
- 75 Elegant home with power saving, security, safety, remote controlling and auto control of water tank motor
- 76 Intelligent train engine to avoid accidents and controlling railway gate automatically
- 77 Design And Development Of Prepaid Energy Meter With Serial Data Transmission
- 78 Protection And Control Of Low Voltage Motors Used In Industrial Applications.
- 79 Flexible load sharing of transformer with GSM SMS
- 80 Agriculture field motor control system using GSM
- 81 Industrial Electrical Devices Control System
- 82 GSM based DC Motor Speed and Direction Control
- 83 Cell Phone based Street Light Controlling System with light failure indication system.
- 84 Temperature Measurement over GSM Mobile
- 85 Password protected GSM based Device control.



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- 86 Fingerprint based Access Control system
- 87 Finger print based elevator (lift) operating system.
- 88 Low Cost Wireless Sensor Network In Field Operation Monitoring Of AC Motor.
- 89 A Zigbee Smart Energy Meter Implementation For Energy Efficient Buildings.
- 90 Development of a smart power meter for AMI based Zigbee communication Advanced Metering Infrastructure (AMI).
- 91 Remote Power On/Off Control And Current Measurement For Home Electric Outlets Based On A Low-Power Embedded Board And Zigbee Communication
- 92 Remote-Controllable and Energy-Saving Room Architecture Based on Zigbee Communication.
- 93 Applications of Short Range Technologies to Industrial Automation: A Zigbee Approach.
- 94 System for Measuring Power Parameters with Zigbee Connectivity.
- 95 Wireless Data Encryption and Decryption Using ZigBee
- 96 ZigBee Based Automated Irrigation System.
- 97 Bluetooth Robot with CMOS image sensor (SPY ROBOT)
- 98 Remote controlled home automation using Bluetooth
- 99 Bluetooth based industrial data acquisition system
- 100 Industrial devices controlling system using Bluetooth
- 101 Intelligent electricity billing system using Bluetooth
- 102 Touch screen based smart home automation
- 103 Electrical parameters data logger



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- 104 Smart horn for vehicles with alcohol detection for drivers
- 105 Smart blind stick with ultra sonic sensor..
- 106 PIR sensor based power saver for auditorium and conference halls.
- 107 Intelligent security and safety system for colleges and industries
- 108 An Efficient Monitoring Of Substations Using Microcontroller Based Monitoring System using RF
- 109 Wireless Power Grid Controller
- 110 RF based industrial Automation System
- 111 DC motor speed and direction control using RF
- 112 Wireless Stepper motor control using RF.
- 113 Power Management System in Hotels using PC.
- 114 PC based Hi-tech Home Implementation.
- 115 Industrial Automation using PC.
- 116 Industrial electrical appliances control using IR.
- 117 DC motor speed and direction control using IR.
- 118 Stepper motor control using IR
- 119 Automatic Room light controller with visitor counter using IR.
- 120 Auditorium Controlling System
- 121 Shopping Malls Security and Power Management System using IR
- 122 AC motor speed control using TRIAC



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- 123 Phase Sequence Indicator and Controlling System.
- 124 Boiler Monitoring and Control System.
- 125 Involuntary Industrial Power Scheduler using Embedded System.
- 126 Power Saver for Advertisement Hoardings using RTC.
- 127 Solar Tracker for acquiring maximum power.
- 128 Water Scheduling for Municipalities
- 129 Electronic Security System for Homes/Industries with auto dialer.
- 130 Energy Saver for Automatic Room Light Controller with Visitor Counter



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