

Electrical engineering final year project topics

1. [Mobile technology \(GSM\) based remote monitoring and control of digital Energy meter. Useful for Electricity Department personal for remote meter reading. Also useful to disconnect the power supply to consumer in case of non-payment of electric bill. This is also used to exchange messages like power cut timings with the consumers.](#)
2. [Controlling AC lamp Dimmer through Mobile Phone \(IEEE-2010\).](#)
3. [Multiple Transformers oil temperature monitoring with automatic circuit breaker operation with SMS based alerts.](#)
4. [A Novel Wireless Self-powered Microcontroller-based Monitoring Circuit for Photovoltaic Panels in Grid-connected Systems \(IEEE-2010\).](#)
5. [Wireless Energy Meter reading on hand-help device based on RF Transceiver.](#)
6. [SCADA implementation based on wireless RF technology. \(IEEE-2009\).](#)
7. Method of Measuring Power Quality and Development of Monitor Device (IEEE-2010).
8. [Motor speed monitoring and control system using GSM modem.](#)
9. [A Smart Card Based Prepaid Electricity System.](#)
10. [High voltage fuse blown indicator with Voice based announcement system.](#)
11. [Voice enabled devices switching for visually impaired.](#)
12. Industrial/power grid electrical parameter Data Acquisition system through wireless technology.
13. [DC Motors speed synchronization for rolling mills.](#)
14. [Touch Screen based digital devices control system. This project is to build a Graphical LCD Touch Screen interface for switching electrical devices. The controlled devices can be of high voltage or low voltage.](#)
15. [Construction of central control unit for Irrigation water pumps. Cost effective method to control entire villagers water pumps with user level authentication. Illiterates friendly system.](#)
16. Wireless Energy Meter monitoring system with automatic tariff calculation.
17. Home Network Configuring Scheme for All Electric Appliances Using ZigBee-based Integrated Remote Controller.
18. Resistive Touch screen controlled contact less speed monitoring and controlling of dc motor with speed limit alerts.
19. DC Motor Speed and direction control over GSM Mobile/Modem.
20. Smart Wireless Temperature Data Logger (IEEE-2007)
21. [Energy meter monitoring and control system using SMS technology\(IEEE-2007\).](#)
22. [Energy meter data logging system with Realtime clock and KWH readings. Very useful for historical data logging and analysis.](#)
23. [Energy meter per-day average, Max and Min Load display on Graphical LCD.](#)
24. MMC/SD card based data logger for energy meter with time and KWH readings for historical data logging and analysis.
25. PIR based energy conservation system for corporate Computers and lighting system.
26. Development of Zigbee based Street Light (IEEE-2008)
27. [Wireless power theft monitoring system and indication at local substations.](#)
28. [Touchscreen controlled lamp dimmer for next generation apartments.](#)
29. Wireless electrical devices monitoring and controlling system for industrial applications.
30. Microconroller and Touchscreen controlled motor speed and direction controlling system.
31. [Touchscreen operated industrial oil dispensing system \(OIL SCADA\).](#)

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32. An On-line Monitoring System of Temperature of Conductors and Fittings Based on GSM SMS and Zigbee(IEEE-2008).
33. 4-wired resistive touch screen controlled lamp dimmer for next generation apartments with Optical isolation and zero crossing detectors.
34. Dual (active and standby) Lithium-ion battery charger for continuous non-interrupted power supply to critical loads.
35. Graphical LCD and Touch Screen based Electrical devices control system.
36. Implementation of wireless sensors network based industrial temperature monitoring system.
37. Touchscreen based advanced temperature monitoring and control system with graphical LCD.
38. GSM based Irrigation Water Pump Controller for Illiterates (No Mobile phone operation knowledge required).
39. Triac and optically isolated diac based electrical oven temperature monitoring and controlling system with zero-crossing detector.
40. High power LED based intelligent streetlight controlling system with automatic brightness control with vehicle presence sensor (GSM optional).
41. Timer based Electrical Oven temperature monitoring and control for Metal Industries.
42. GSM based SCADA implementation using Microcontroller.
43. 3-phase irrigation water pump controller for illiterates using dual GSM Modems.
44. Microcontroller based Substation Monitoring and control.
45. Microcontroller based Generator/Alternator Control and Monitoring System
46. Electrical Data (voltage, current, frequency etc...) Logger. The purpose of this project is to log electrical data at remote locations like substations. The data is sensed using various electrical sensors and processed by microcontroller. This processed data is stored in a MMC memory stick connected to the microcontroller board. This data can be downloaded to computer for further processing.
47. [Hall Effect sensor based non-contact Tachometer for electrical motors speed measurement.](#)
48. [Microcontroller based Single phasing preventor.](#)
49. IR Remote controlled Irrigation water pump controller with single phasing protection.
50. Microcontroller based Solar Tracker with Stepper Motor Control.
51. Auto-Credit Energy Metering System using mifare card.
52. PWM based DC Motor Closed loop Speed Controller.
53. [RS485 based SCADA system for longer distance powered devices](#)
54. Radio Frequency (RF) based Wireless Control Of DC/Stepper Motor Speed Control.
55. RF based Wireless Electrical Devices Controller.
56. Motor Speed Monitoring over GSM Mobile.
57. Microcontroller based refrigeration control system.
58. Timer based automatic power cutoff for industrial sealing/packaging machines.
59. Wireless SCADA.
60. GSM/Mobile/Cell Phone Based Device Monitoring and Control.
61. GSM Based Automatic Irrigation Water Controller System
62. Automatic Intelligent Plant Watering System
63. IR (Infrared) Remote based Stepper Motor Speed and Direction Controller
64. RC5 IR Based Remote Device Switching

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65. The Robot that follows the (Infrared) Light
66. [Frequency Locked Loop DC Motor speed monitoring and control system.](#)
67. Digital Tachometer (Non-contact)
68. Digital Voltage, Current and Frequency Meter.
69. SCADA system design and construction for real-time electrical parameter monitoring and control.
70. Transformer oil temperature monitoring with automatic Circuit Breaker operation.
71. GSM/Mobile/Cell Phone Based Device Monitoring and Control System.
72. [Energy Tapping Identifier Through Wireless Data Acquisition System.](#)
73. Substation Fuse blown Indicator.
74. Mobile phone controlled Street Light monitoring and control system.
75. UPS battery monitoring system over GSM for high availability systems (banking/finance/medical etc).
76. DTMF mobile phone controlled dam water gates controlling system with high-level protection.
77. DC Motor Speed and direction control using RF/IR/Zigbee technologies.
78. Hazardous chemical valve control system with stepper motor and line of site remote control.
79. Contact less Motor speed monitoring on Graphical display with high and low speed alerts.
80. Design and construction of Earth fault relay for single phase power system.
81. RF transceiver (Zigbee/X-Bee) based energy meter monitoring system. (Energy Meter reading on PC over wireless comm.)
82. [Talking energy \(KWH\) meter.](#)
83. [Sine wave Inverter.](#)
84. [Transformerless Variable Frequency Drive](#)
85. Solar operated Liquid Vending machine
86. DC-DC Converter
87. [Green wind energy for rural electrification](#)
88. [AC-AC Converter](#)
89. Earth Fault relay for 3-phase power system
90. Programmable current relay for high speed protection.
91. [MPPT Optimal Power Point Tracking system for Solar PV panels.](#)
92. Password enabled pre-paid liquid/milk dispensing system.
93. High voltage fuse blown indicator with display on PC with optical isolation between PC and HV bus bars
94. [Solar based air compressor pump for car bike tire inflate](#)
95. [Voice operated Intelligent Fire extinguisher vehicle](#)
96. An On-line Monitoring System of Transmission Line Conductor De-icing(IEEE-2008).