Some PLC based project ideas

1. PLC BASED MANLESS RAILWAY GATE CROSSING.

2. PLC BASED AUTOMATIC CAR PARKING SYSTEM-MULTI LEVEL.

3. PLC BASED AUTOMATIC FIRE FIGHTING SYSTEM (ENUNCIATOR SYSTEM, WATER SPRINKLING BASED)

4. PLC BASED AUTOMATIC ALARM SYSTEMS IN PLANTS (INDICATION, ENUNCIATION, MESSAGE)

5. PLC BASED AUTOMATIC BOTTLE FILLING APPLICATION (WATER, CHEMICAL, PAINT, OIL BASED)

6. PLC BASED AUTOMATIC SECURITY SYSTEM (CAR, HOME, OFFICE, APARTMENTS BASED)

7. PLC BASED AUTOMATIC COUNTING SYSTEM (WATER PLANT, BEVERAGE INDUSTRY, PHARMACEUTICAL BASED)

8. PLC BASED AUTOMATIC CONTROLLING OF PARAMETERS (TEMPERATURE, LEVEL, PRESSURE, FLOW, etc.,)

9. PLC BASED AUTOMATIC WASHING MACHINE CONTROL (MOTOR SPINNING, TIMMING, etc.,)

10. PLC BASED AUTOMATIC MIXING APPLICATIONS (CHOCOLATE, CHEMICAL INDUSTRIES BASED)

11. PLC BASED AUTOMATIC DAM SHUTTER OPEN/CLOSE SYSTEM

12. PLC BASED AUTOMATIC MULTI-MACHINE LUBRICATION SYSTEM

13. PLC BASED IRRIGATION CONTROLLER IN AGRICULTURE

14. PLC BASED DOOR OPEN AND CLOSING SYSTEM

15. PLC BASED BOILER PRESSURE MONITORING AND CONTROLLING SYSTEM

16. PLC BASED MULTI-CHANNEL TEMPERATURE MONITORING AND CONTROLLING SYSTEM

17. PLC BASED LEVEL CONTROL SYSTEM
18. PLC BASED AUTOMATIC DRILLING SET UP
19. PLC BASED ELEVATOR SYSTEM
20. PLC BASED AUTOMATIC PACKING MACHINE
21. PLC Based Industrial Timer Controller
22. PLC based phase sequence indication and controlling system
23. PLC Based Automatic Industrial Drainage Timer
24. PLC Based Industrial Monitoring system
25. PLC Based Temperature Controller
26. PLC Based Traffic Density Control Using Sensor
27. PLC Based Pressure Controller
28. PLC Based Elevator Controller
29. PLC Based Automatic Bottle Filling System
30. PLC based multi-channel fire alarm system
31. PLC based automatic guided vehicle
32. PLC Based Automatic Car Washing System
33. PLC Based Pick And Place Robot
34. PLC Based D.C Motor Speed Monitoring system
35. PLC Based Filter Reactor In Sugar Factory
36. PLC based automatic packing control machine
37. PLC based multi-channel temperature monitoring and controlling system
38. PLC based door open and closing system
39. PLC based four axis welding robot
40. PLC based traffic density controller using sensor
41. PLC Based Energy Saving System
42. PLC based double axis crane
43. PLC based automatic dam shutter open/close system
44. PLC based industrial timer controller for multiple machines
45. PLC Based Automatic Car Parking System
46. PLC Based Automatic Coffee Vending Machine
47. PLC Based Online Inspection Machine
48. Boiler Automation Using PLC
49. PLC Based Plate Cutting Machine
50. PLC Based Material Trolley Controller
51. PLC Based Powder Coating Machine Controller
52. PLC based industrial or home security system
53. PLC based A.C motor controlling system
54. PLC based automatic punching machine
55. PLC based wireless energy meter
56. PLC based automatic industrial or school or college time management system
57. PLC based irrigation controller for garden
58. PLC based automatic traffic and street light controller
59. PLC based injection Moulding machine controller
60. PLC based home appliances controlling system
61. PLC based automatic Multi-machine Lubrication System
62. PLC based Finger print based voting machine
63. PLC based automatic power factor controlling system
64. PLC Based Automatic Track Guided vehicle (ATGV)
65. PLC Based Automatic Vehicle Accident information system
66. PLC Based Moving Message Display
67. PLC Based Automatic Humidification system
68. PLC based automatic visitor guided vehicle
69. PLC based banking system
70. PLC Based Incubator
71. PLC Based voice controlled Machines
72. PLC Based Railway track crack Detecting Vehicle
73. PLC Based Unaided Guided Vehicle (UGV)
74. PLC based automatic paint marking machine
75. PLC Based multiple transformer fault detection and production system
76. PLC Based Gas leakage detection and auto dialing
77. PLC Based Railways Accident Avoiding System
78. PLC Based Intelligent Braking System
79. PLC Based Automated Guided Vehicle (AGV)
80. PLC Based Self centering Four-jaw Chuck
81. PLC Based Automatic Water Level Indicator and Controlling System

82. PLC Based Digital Fuel Level Indicator Sensor Based Automatic steering control system for Automobile

83. PLC Based Automatic Electro-Plating Coating System

84. PLC Based automatic glucose flow rate controller

85. PLC based mini-computer dictionary

86. PLC Based mono rail system Coin box based water filling system

87. PLC based wireless energy transmitter with power cutoff system

88. PLC Based Fire Fighting AGV

89. PLC Based Automatic medicine announcement system

90. PLC Based Power Management System

91. Automatic Vehicle Over Speed Indication and Controlling System

92. PLC Based Automatic Traffic and Street Light Controlling System

93. PLC based talking key pad for blind people

94. PLC Based Phase sequence indicator and controlling System

95. PLC Based Two Wheeler Automation with Security System

96. PLC Based Automatic college bell with announcement System

97. PLC based digital gear level indicator

98. PLC Based Sensor Operated Path Finder Vehicle

99. PLC Based Dam water level Indicator and Controlling System

100. PLC based boiler pressure monitoring and controlling system
Latest PLC Based Projects

- PLC based automatic Multi-machine Lubrication System
- PLC based industrial timer controller for multiple machines
- PLC based wireless energy meter
- PLC Based sequential batch process
- PLC Based Traffic Light Controller project
- PLC based industrial or home security system
- PLC based automatic bottle filling System
- PLC based phase sequence indication and controlling system
- PLC based boiler pressure monitoring and controlling system
- Flexible I/O Interface in Industrial Control System Using PLC
- PLC based automatic dam shutter open/close system
- PLC based double axis crane
- PLC based traffic density controller using sensor
- PLC based irrigation controller for garden
- PLC Based Automatic Sheet Laminator
- PLC based Cold Lamination System.
- PLC based automatic industrial or school or college time management system
- Mine water level fuzzy control system design based on PLC
- PLC based automatic car parking system
- PLC based door open and closing system
- PLC based A.C or D.C motor controlling system
- PLC based four axis welding robot
- PLC based automatic guided vehicle
- PLC based automatic packing control machine
- PLC based phase sequence indication and controlling system
- PLC based boiler pressure monitoring and controlling system
- PLC based multi-channel temperature monitoring and controlling system
- PLC based double axis crane
- PLC based four axis welding robot

Automation & Control Project Topics for Final Year Students
These are very good project ideas for Automation & control and for those students who are making their project based on PLC. Some of these project topics are from IEEE

1. Research on the automatic detection system for cracked egg based on LABVIEW
2. Automatic control of a headstock gear based on PLC for water conservancy
3. Lab VIEW-base automatic rising and falling speed control of stepper motor
4. Low voltage motor protection & control – industrial Process applications
5. Wireless Machine Monitoring And Control For Educational Purpose
6. Labview based mobile robot navigation system
7. Wireless health monitoring system
8. Wireless Measurement and Control System for Environmental Parameters in Greenhouse
9. Design for Battery Energy Manage System Based on LABVIEW
10. Automating the Residential Thermostat Based on House Occupancy
11. Application of Real-time Control System Using LABVIEW in Distance-Learning
12. Application of Prognostic and Health Management Technology on Aircraft Fuel System
13. Human-Observation-Based Extraction of Path Patterns for Mobile Robot Navigation
15. A High-Efficiency Dimmable LED Driver for Low-Power Lighting Applications
16. Design of Health Relaxation System based on Biofeedback from Finger Sensors
19. Remote Laboratory Data Management System Based on LabVIEW
20. Pressure Sensor Implementation for Head Media Spacing Reduction
21. The Design of Home Portable Medical Monitor Based on SCM and Sensor
22. A solar panels automatic tracking system based on DELTA PLC
23. PLC Based Operation of Three Natural Gas Generator Models - A Learning Aid
for Undergraduate
Students
24 Industrial Application of Nonlinear Model Predictive Control Technology for Fuel Ethanol Fermentation Process
25 A Single-Chip CMOS Smoke and Temperature Sensor for an Intelligent Fire Detector
26 XA ZigBee-Based Home Automation System
27 Research on Railway Coach Electric Safety Monitoring System
28 Labview Modeling and simulation of a hydrogen based photovoltaic/wind energy system
29 Design of ice-storage air conditioning control system based on PLC and touching screen
30 A high efficiency autonomous street lighting system based on solar energy and LEDs
31 Real—Time DC Servo Motor Position Control by PID Controllers Using Labview (2009)
32 FPGA based micro-plc design approach (2009)
33. The Diagnosis System of Mechanical Fault Based on Labview Platform and Its Application
34 Study of Elevator Safety Performance Test System Based on LABVIEW
35. Modeling Of MEMS Based Temperature Sensor And Temperature Control In A Petrochemical Industry Using LabVIEW.
36 A Real-Time Simulation System of Wind Power Based on LabVIEW DSC Module and Matlab/Simulink
37 System of Automation of an Industrial Plant of Elaborating and Packing of Industrial Detergent
38 A web-based distributed measurement system for electrical Power Quality monitoring
39 Design and Application of Auto-constant Water Supply System
40 Design of Traffic Lights Controlling System Based on PLC and Configuration
Technology
41 A Solar Panels Automatic Tracking System Based on OMRON PLC
42 A Web-Based Remote Access Laboratory Using SCADA
43 Application of Communication and Remote Control in PLC Based on ZigBee Technology
44 Development on Automatic Conveying System for Dangerous Goods
45 The Design and Implementation of A Low Cost Temperature Control System for Agriculture Greenhouses
46 Design of Temperature Control Device Underground Coal Mine Based on AT89S52
47 Mine Pump Comprehensive Performance Testing System Based on Labview
48 Real –Time DC Servo Motor Position Control by PID Controllers Using Labview
49 Application of ZigBee for Pollution Monitoring Caused by Automobile Exhaust Gases
51 Implementation of a Labview-Based Automated Wind Tunnel Instrumentation System
52 Fault Detection and Protection of Induction Motors Using Sensors
53 Integrating a Bed Sensor in a Smart Home Monitoring System
54 Real time mailbox alert system via sms or email
55 Design and implementation of plc-based monitoring control system for induction motor
56 Automated green house status monitoring and control system
57 Automatic railway gate control using microcontroller
58 Automatic vehicle over speed controlling system for school and college zone
59 Boiler automation of Temperature, Water level monitoring & Control System Using PLC
60 Brushless DC motor control using PLC
61 Design and Application of Auto-constant Water Supply System
62 Design and development of an automatic small-scale house For teaching
domestics
63 A Wearable Inductor Channel Design for Blood Pressure Monitoring System in Daily Life
64 Fire exposure and automatic indication system using plc
65 Improvement of Zigbee mobile router for supporting network mobility in healthcare classification
65 Low voltage motor protection & control – industrial Process applications
67 Home appliances control & status indication through alarm
68 Intelligent agricultural system with weather monitoring
69 Microcontroller based power transformer Testing using wireless communication
70. Wireless remote motor starter with acknowledgement using solar energy for agricultural Application
71 SCADA based industrial fluid parameter monitoring and control system
72 Low voltage motor protection & control – industrial Process applications
73 ICU care taker –life support system using RF with BP& heart beat monitoring
74 Microcontroller based aeronautical crash prevention system through RF communication
75 SCADA implementation for power generator performance and condition monitoring system
76 Power plant scrutinizing system using SCADA
77 A Low-cost Microcontroller-based Wireless ECG-Blood Pressure Tele monitor for Home Care
78 Two Legged Robot Design, Simulation and Realization
79 SCADA system for turbine speed control and management in power plants
80 LabVIEW-base automatic rising and falling Speed control of stepper motor
81 Supervisory Control and Data Acquisition System for Power Distribution systems
82 The Research and Design Of The Belt Grinder Which Based On PLC
83 Unmanned automated car parking for parking area using sensors with PLC
84 Vehicle safety system with fuel and alcohol detection and indication
85 Wireless Measurement and Control System for Environmental Parameters in
Greenhouse
86 PLC-Based Measurement of Electrical Data in Photovoltaic Energy Systems
87 “Smart House” and “Smart-Energy” Applications of Low-Power RFID-based Wireless Sensors
88 Design and Implementation of Intelligent Fault Diagnosis System

Courtesy: Pantech Solutions

EL018 PLC Based Automatic Car Washing System
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EL082 PLC Based Phase sequence indicator and controlling System  
EL083 PLC Based Two Wheeler Automation with Security System  
EL084 PLC Based Automatic college bell with announcement System  
EL085 PLC based digital gear level indicator  
EL086 PLC Based Sensor Operated Path Finder Vehicle  
EL087 PLC Based Dam water level Indicator and Controlling System  
EL088 PLC based boiler pressure monitoring and controlling system  

PLC1401 AN EFFICIENT HOME ENERGY MANAGEMENT SYSTEM BASED ON AUTOMATIC METER READING  
PLC1402 STATE SPACE APPROACH CONTROLLER DESIGN FOR PLC BASED PWM DRIVEN VARIABLE SPEED DRIVE  
PLC1403 WATER HAMMER PROTECTION IN WATER SUPPLY SYSTEM A NEW APPROACH WITH PRACTICAL IMPLEMENTATION  
PLC1404 RESEARCH ON THE STRUCTURE AND PLC CONTROL OF A NEW AUTOMATIC TOOL CHANGER  
PLC1405 GHNEM THE NEW ITU T STANDARD ON NARROWBAND PLC TECHNOLOGY  
PLC1406 PLC BASED CONTROL OF REMOTE LABORATORY EXPERIMENTS  
PLC1407 THE RESEARCH OF SPACE TELESCOPE CCD CAMERA IMAGE RESOURCE SIMULATIVE SYSTEM  
PLC1408 RESEARCH AND DEVELOP ON SUBSTATION VOLTAGE AND REACTIVE POWER CONTROL BASED ON EXPERT SYSTEM  
PLC1409 RESEARCH ON COMPLEX GOAF DETECTION TECHNOLOGY FOR MINING CONVERTED FROM UNDERGROUND TO OPEN-PIT BASED ON GPR METHOD
THE APPLICATION OF CLOSED HOOD CONTROL SYSTEM IN PAPER MACHINE