

Circuit Breaker Based On Password

Our system proposes a password based circuit breaker system. Here we connect the circuit with a keypad through which we enter the password. There is a substantial increase in the number of fatal accidents involving line men due to electric shocks resulting from the lack of coordination between maintenance staff and the electric substation staff. This system provides a solution to this problem, to ensure there are no such incidents that endanger the life of line men. Here the control of the circuit is provided at the substation. A circuit breaker is used along with a keypad. The line man can enter the password to switch OFF the circuit.

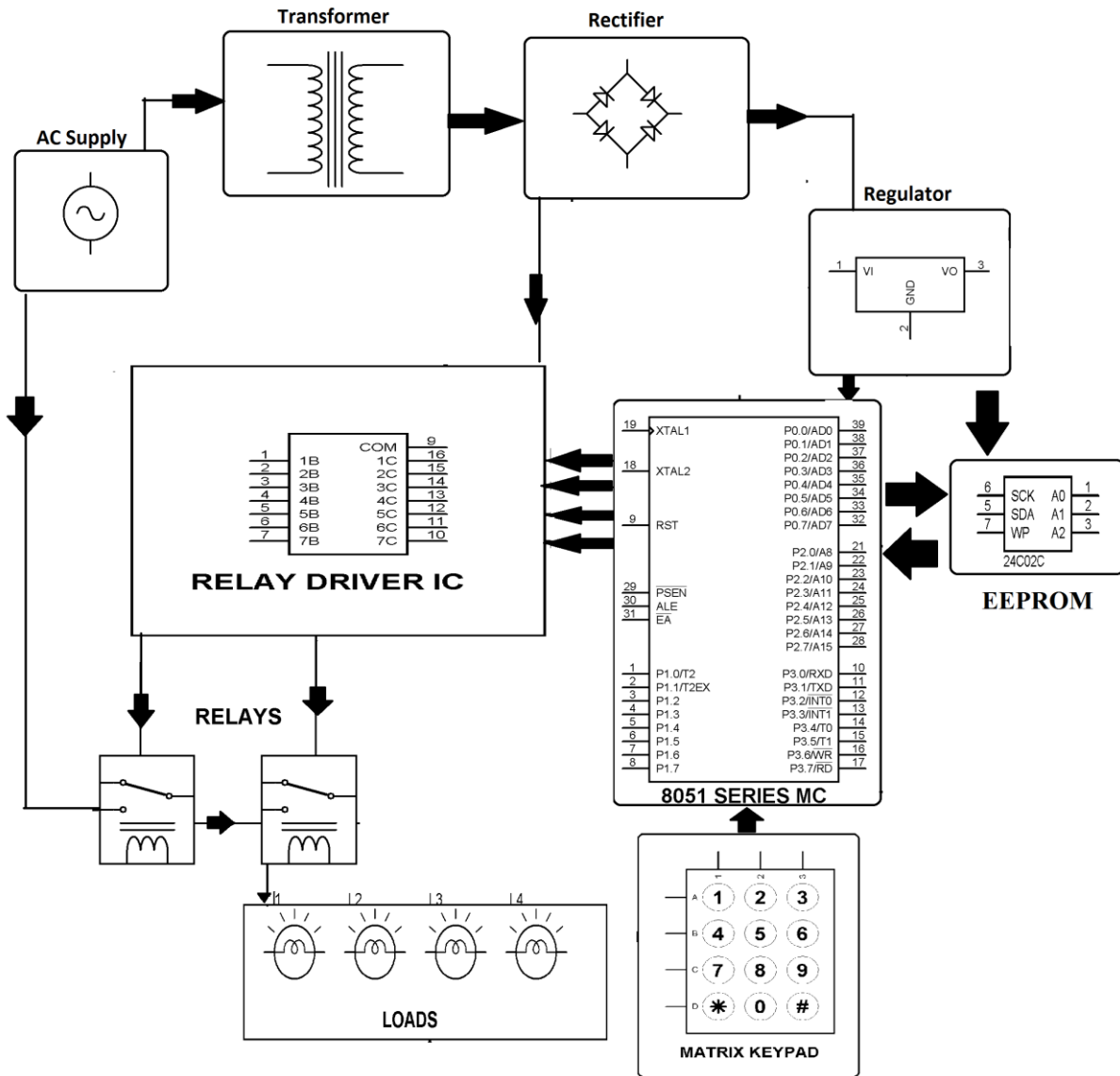
He may now safely work out the repairs and may return to the substation to switch ON the circuit.

He again needs to enter the password in order to switch ON the circuit.

Since the control to switch ON/OFF the circuit lies with the lineman himself there is no chance of accidents. The system uses an 8051 microcontroller in order to tally password and a matrix keypad to take password input.

The system is enhanced by integrating with an EEPROM for password changing as and when needed.

BLOCK DIAGRAM



Hardware Specifications

- 8051 series Microcontroller
- Relay Driver IC
- Relays
- EEPROM
- LCD
- Voltage Regulator
- Matrix Keypad
- Transformer
- LED
- Diodes
- Lamps
- Crystal

Software Specifications

- Keil μ Vision IDE
- MC Programming Language: Embedded C