IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429
Volume 5, Issue 8, April 2025
Impact Factor: 7.67

Automatic Overload and Load Sharing Control by using Arduino Microcontroller

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Abstract: *Power failure is a short- or long-term loss of electric power to an area mostly cost cause by short circuit, damage to electric transmission line, overvoltage, faults at power stations and more commonly failure due to overloading. The possible damage areas are affected by losing power.*
The one inherent problem with standard power sharing and monitoring units is their broadcast strength. Since you must be physically close to the alarm to hear it, you might not get notified in time to prevent overload. The microcontroller-based load sharing, and control system is a device that automatically controls overload on a main line by sharing power and cut off supply once the power consumption exceeds the amount of power supplied. The control system for controlling the AC load. This is achieved by using a microcontroller PIC16F877A to automatically detect an overload and subsequently shift the supply on secondary transformer. The method used in the project provides necessary stages from overload detection to shifting of supply. The main aim of the work is to provide a non-interrupted power supply to the energy consumers. By implementation of this scheme the problem of interruption of supply due to transformer overloading can be avoided. The work was successful, and their liability level expected is commendable as this may also create room for improvement. The project was tested and observed that shift of the supply as soon as the microcontroller senses an overload on the system by the user..

Keywords: electric power

DOI: 10.48175/IJARSCT-25520