

Project : Automating control of distribution network during backup power

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Back up generators usually do not generate enough power to power up all the appliances in a house. This results in the home owner having to manually turn off specific circuit breakers from the breaker panel. When the home owner wants to turn on a specific circuit which requires a higher power input , they have to decide which circuit breaker(s) to turn off inorder to ensure that the needed circuit gets enough power. This can be tiresome and inconvenient when you want to switch off or on different circuits from time to time as it is a manual process which requires a lot of movement of the home owner . This project aims to automate this process so as to make it convenient and dynamic such that it can be done with the push of a button either through a digital panel of pushbuttons located at a convenient location, remote control or a smartphone.This is achieved through the use of a microcontroller to control relays. The inputs to the microcontroller are a pushbutton , RF receiver and a bluetooth receiver , all used to enable the digital switching on of circuits. The device can also display the current amount of power being consumed by house hold appliances.This is achieved by use of a current transformer to measured current supplied to the house