MINI PROJECT REPORT ON

AC POWER SUPPLY INTERRUPTION COUNTER WITH INDICATOR

Submitted in partial fulfillment of requirement for the award of the degree of

MASTER OF SCIENCE

IN

ELECTRONICS

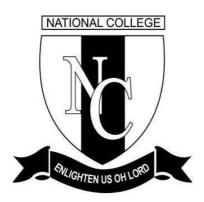
OF

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DEPARTMENT OF ELECTRONICS CERTIFICATE

This is to certify that the mini project report entitled "AC POWER SUPPLY INTERRUPTION COUNTER WITH INDICATOR" is a bonafide record of the work done by JIYA JACOB (Reg.no:651-17807004) of National College, Thiruvanvanthapuram towards the partial fulfillment of the requirement for the award of the degree of Master of Science in Electronics of the University of Kerala during the period 2017-2019.

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ACKNOWLEDGEMENT

First of all, I wish to acknowledge my deepest gratitude and indebtedness to the creator whose all-providing munificent has ever ceased to amaze me at every stages of this mini project.

I express my sincere thanks and a deep sense of humble gratitude to our Principal, **Dr. Abdul Rahim.** M for providing suggestions and his kind interest in providing the best facilities.

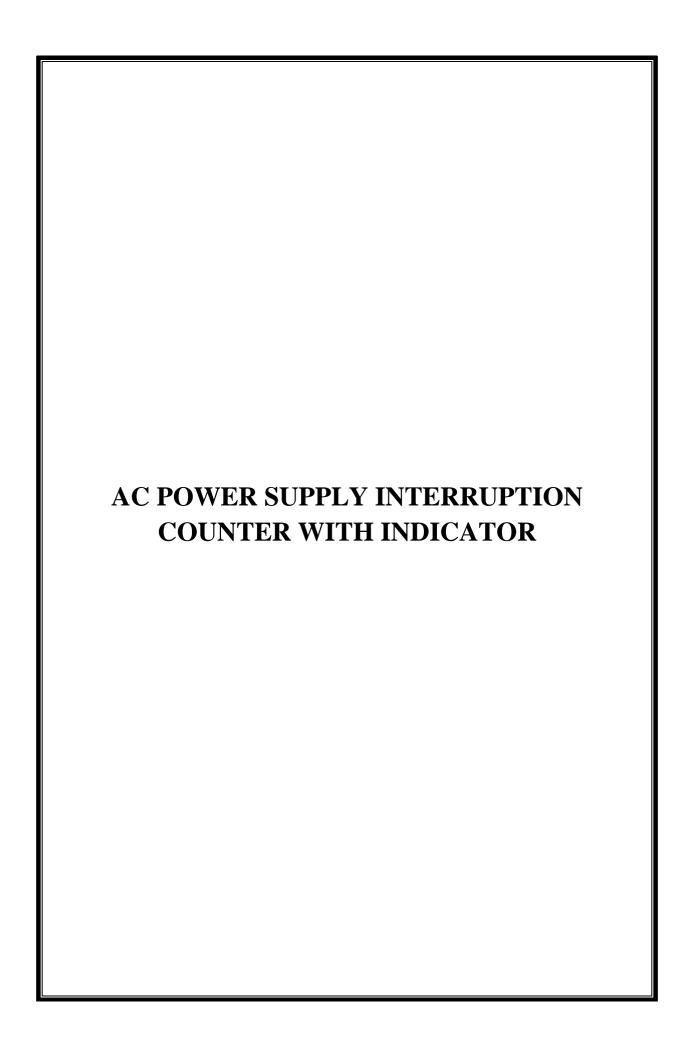
I express my heartfelt gratitude to **Mr. Madhusoodanan Pillai.T.G,**Head of the Department of Electronics for his encouraging and valuable advices.

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Last, but not least, I express sincere thanks to all my friends for their support.

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ABSTRACT

The name of the proposed mini project is AC POWER SUPPLY INTERRUPTION COUNTER WITH INDICATOR.

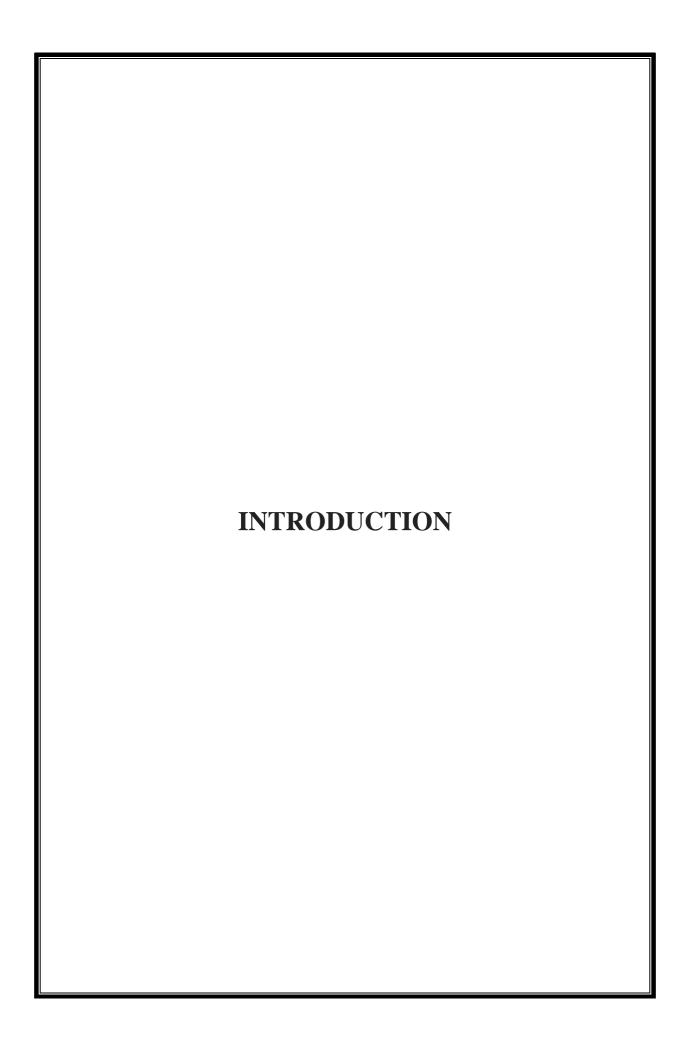
This circuit counts mains supply interruptions (up to 9) and shows the number on a 7-segment display. It is highly useful for automobile battery chargers. Based on the number of mains interruptions, the user can extend the charging time for lead-acid batteries. IC CD4033 is a decade counter 7-segment decoder. Its pin 3 is held high so that the display initially shows '0.' Clock pulses are applied to clock input pin 1 and clock-enable pin 2 is held low to enable the counter. Seven-segment, common-cathode display indicates the mains interruption count. Capacitor provides a small turn-on delay for the display.

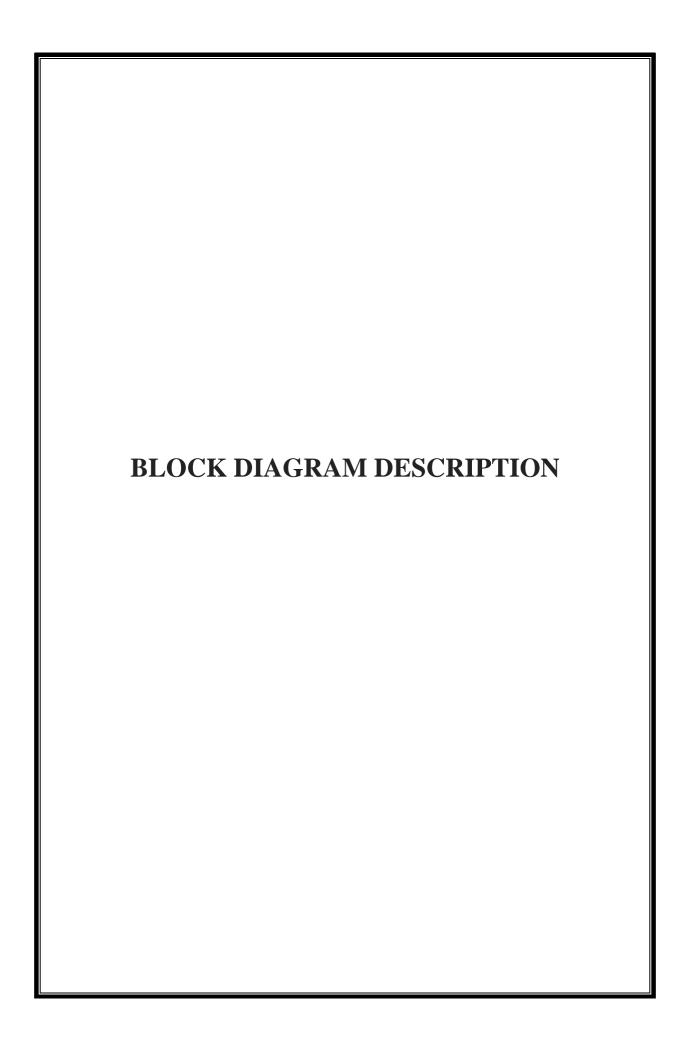
Simple and easy circuit designed to count the occurrence of power supply interruption. This circuit will help us to count the AC power interruption using seven segment display from 0 to 9 (you can design two digit counter by adding another counter stage) and also we can reset the count when needed. This circuit contains three stage, first one is AC power input stage, second stage is opto coupler & Johnson decade counter then final third stage is number display.

Mains Supply interruption indicator circuit can be used in applications where it is necessary to know whether the mains supply has been continuous or not. The circuit mains supply interruption indicator will be useful for monitoring mains supplies to recording equipment, especially in the recording of computer software tapes, where the slightest interruption in the mains supply will cause an error in the data being recorded. It can also be used with digital clocks working on mains. An interruption in the mains supply will case in LED to flash as a warning that the mains supply was interrupted.

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CIRCUIT DIAGRAM DESCRIPTION

