MARA INSTITUTE OF TECHNOLOGY
ELECTRONICS DEPARTMENT
SCHOOL OF ENGINEERING.

STUDENT'S PROJECT REPORT ON:

COULOMB METER

BY:

NASRUDDIN BIN BORHAM
I/C. 82758078
BASARUDIN BIN TAIB
I/C 80509542

UNDER SUPERVITION OF:

PUAN MARTINI SALAM

FINAL YEAR- MAY 1985

DIPLOMA IN ELECTRONICS ENGINEERING
MARA INSTITUTE OF TECHNOLOGY
SHAH ALAM
SELANGOR.

CONTENTS

ACKNOWLEDGEMENT

In the preparation of this report, we have had to draw upon the active help of a large number of persons. Hence we would like to take this opportunity to thank them who in their official or personal capacities have given us many hours of their time and effort, for whom this short acknowledgement cannot express in any adequate way our profound thanks.

We wish to express our sincere gratitude and appreciation to our Supervisor, Puan Martini Salam, Coordinator Project Mr. Azad Chako, Lecturers, Technicians, Seniors and friends for their invaluable assistance, advice, guidance and care shown has been great contribution to completion of this report.

Our acknowledgement wouldn't have been completed without credit being given to Miss Tussy for her invaluable help in typing.
Again to all above, we say thank you very much.
May ALLAH bless you.

ABOUT KIT

The most obvious use for test gear is of course in trouble shooting. It help us to diagnose faults swiftly and surely, which is half the battle in curing them. But it can also a play a useful role in almost every other field of electronic. Test and measurements are valuable in designing, constructing adjusting and operating electronic devices. They also help us to understand how these things work.

In a nutshell, test equipment is indispensable to the radio, television, and electronic enthusiast. To get along without it is well night impossible. Even the simplest check and adjustments cannot be made really efficiently without some sort of test gear.

Building our own test gear can effect every considerable saving, but of course the job must be done carefully and as accurate as possible and with good quality component if it is to be worth while doing at all. Test gear that gives us grossly in accurate reading or measurements is not only of little use but can be so misleading that it can cause you to make mistakes which could damage costly components in the apparatus tested.

INTRODUCTION

In school science experiments the flow of charge (the number of coulombs) often has to be measured, if the current is constant, it can be measured with an analogue ammeter, and if the rate of charge is slow enough the current can be plotted against time again using the ammeter and a stop watch.

However, in some chemical experiments involving aqueous solutions the current can change a great deal during the process, making continous monitoring impratical. Physics experiments concerned with the charging of capacitors have exponentially varying currents. Often too rapid for an analogue meter to follow.

A meter which indicates the total charge that has flowed during an experiment would solve these problems.