

DESIGN OF AN ELECTRONIC
EARTH LEAKAGE CIRCUIT BREAKER

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SUMMARY

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This design has the following objectives:

1) To design an electronic circuit for sensing an earth leakage in an electrical apparatus.

It is obvious that a device or circuit has to detect the earth leakage current in order to be able to provide protection against it .

2) To provide means for setting the upper safe limit to this fault .

This is due to the noise that may occur. We don't want the mains circuit to be broken because of noise, but only because of a real fault .

3) To provide means for breaking the supply to the load when the predetermined upper safe limit is exceeded .

4) To provide means for the supply to be prevented from being reconnected to the load after a fault, unless the user is alerted .

- Existing H.T.I. laboratory equipment such as a dual power supply and a current transformer were used .

CONTENTS

	PAGE
SUMMARY	1
CHAPTER 1 :INTRODUCTION	
1.1 Problem of earth leakage currents.....	2
1.2 Protection against earth leakage currents.....	3
1.3 Modern ways of protection.....	4
1.4 The electronic earth leakage circuit breaker.....	5
CHAPTER 2 : DESIGN AND CONSTRUCTION	
2.1 Explanation of Block Diagrams.....	6
2.2 The current transformer.....	8
2.3 Dual/Window Comparator.....	11
2.4 The Logic Gate.....	16
2.5 Inverter.....	18
2.6 Transistor and relay.....	20
2.7 Restarting after fault	23
2.8 New transistor.....	25
2.9 Low pass filter.....	25
2.10 Positive feedback.....	26
2.11 Operation.....	27
2.12 The final circuit.....	28
CHAPTER 3 : TESTING AND RESULTS	
3.1 Characteristics of the current transformer with earth leakage circuit breaker on.....	31
3.2 Test points.....	33
3.3 Further tests and waveforms.....	34

CHAPTER 4 : CONCLUSIONS

Conclusions.....	38
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APPENDICES

REFERENCES