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

CHAPTER 4 : CONCLUSIONS

APPENDICES

REFERENCES