

**SINGLE PHASE CONTROLLER FOR AUTOMATED STANDBY
GENERATOR FOR LOW POWER APPLICATIONS USING
PROGRAMMABLE LOGIC CONTROLLER (PLC)**

**Thesis is presented to fulfil the requirement of Advanced Diploma In Electrical
Engineering of MARA Institute of Technology**

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ABSTRACT:

The project concerns with the design and development of A Programmable Logic Controller for Automated Single Phase Standby Generator for Low Power Applications. The system developed shall be capable of providing back-up supply up to 600 VA during power failure. Basically, the generator generates the supply after the supply from TNB breakdown and degenerates after the supply is restored.

The ladder diagram is developed and PLC is used as a controller for the system.

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CHAPTER 1

INTRODUCTION

1.0 Introduction

One of the main problem in electrical or electronic equipment operation is when the main supply is interrupted. Certain electrical equipment may be effected and requires a form of backup for reliable operation. General methods in use to provide continuous supply includes; the use of standby generator or through the use of UPS system.

UPS system are generally expensive; especially when long periods of backups are required leading to high capital costs. Standby generators on the other hand are comparatively more cost effectively but has the disadvantages of having slower response time whilst normally available in applications of large loads.

For lightly loaded applications such as computer, automated monitoring system etc; a cost effective solutions are apperent in the market limiting the capabilities of those operations.