



**UNDER-FREQUENCY LOAD SHEDDING TECHNIQUE CONSIDERING  
EVENT-BASED FOR AN ISLANDED DISTRIBUTION NETWORK**

This project is presented in partial fulfillment for the award of the

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## **ABSTRACT**

One of the biggest challenges in an islanding operation is to reduce the power imbalance between dispatched power of Distributed Generation (DG) and load demand. A large power imbalance following islanding would cause under-frequency. Hence, an appropriate control is required to shed certain amount of load. The main objective of this research is to develop an adaptive under-frequency load shedding (UFLS) technique for an islanding system. The technique is designed considering an event-based which includes the moment system is islanded and a tripping of any DG unit during islanding operation. A disturbance magnitude is calculated to determine the amount of load to be shed. The technique is modeled by using PSCAD simulation tool. A simulation studies on a distribution network with mini hydro generation is carried out to evaluate the UFLS model. It is performed under different load condition: peak and base load. The results have shown that the load shedding technique have successfully shed certain amount of load and stabilized the system frequency.

# TABLE OF CONTENTS

<b>Declaration</b>	<b>iii</b>
<b>Dedication</b>	<b>iv</b>
<b>Acknowledgement</b>	<b>v</b>
<b>Abstract</b>	<b>vi</b>
<b>Table of Content</b>	<b>vii-ix</b>
<b>List of Figures</b>	<b>x-xi</b>
<b>List of Tables</b>	<b>xii</b>
<b>List of Symbol and Abbreviation</b>	<b>xiii</b>

## **CHAPTER 1: INTRODUCTION**

1.1	Introduction	1-2
1.2	Problem Statement	2
1.3	Objective	2
1.4	Scope of Study	3
1.5	Thesis Outline	3-4

## **CHAPTER 2: LITERATURE REVIEW**

2.1	Introduction	5
2.2	History of Power Outage in Malaysia	5-6
2.3	Under-Frequency Load Shedding (UFLS) Techniques	6
2.3.1	Conventional Technique	6-7
2.3.2	Adaptive Technique	7-9
2.3.2.1	Event-Based	9
2.3.2.2	Response-Based	9-10
2.3.3	Intelligent Technique	10

2.3.3.1	Fuzzy Logic Load Shedding Controller (FLLSC)	10-11
2.3.3.2	Load Shedding Controller Module (LSCM)	11
2.3.3.3	Frequency Calculator Module (FCM)	11-12
2.4	Summary of Literature Review	12

### **CHAPTER 3:            METHODOLOGY**

3.1	Introduction	13
3.2	Introduction to PSCAD Simulation Tool	13-15
3.3	Modeling Load Shedding Controller Module (LSCM)	16
3.3.1	Principle Operation of Load Shedding	16-17
3.3.2	New Component of LSCM	17-20
3.4	Test System	21-22
3.5	Case Studies	22-23

### **CHAPTER 4:            RESULTS AND DISCUSSIONS**

4.1	Introduction	24
4.2	Simulation Results	24
4.3	Analysis of Base Load	25
4.3.1	System without Load Shedding	25
4.3.1.1	System Frequency Response (F)	25-26
4.3.1.2	System Voltage ( $V_{rms}$ )	26
4.3.1.3	Real Power (P)	27
4.3.1.4	Total Power Imbalance ( $\Delta P$ )	28
4.3.2	System with Load Shedding	29
4.3.2.1	Breaker Status of each load	29-30
4.3.2.2	System Frequency Response (F)	30
4.3.2.3	System Voltage ( $V_{rms}$ )	31
4.3.2.4	Real Power (P)	31-32
4.3.2.5	Total Power Imbalance ( $\Delta P$ )	33
4.4	Analysis of Peak Load	33
4.4.1	System without load shedding	33-34
4.4.2.1	System Frequency Response (F)	34