

# CONTENTS

## Page No

### CHAPTER1: INTRODUCTION

1.1.	Overview	1
1.2.	Objectives	2
1.3.	Scope of objectives	2
1.4.	Challenges and motivation	5
1.5.	Problem statement	7
1.6.	Existing system	8
1.7.	Proposed system	9

### CHAPTER 2: LITERATURE SURVEY

2.1.	Introduction	11
2.2.	Related work	11

### CHAPTER 3: SYSTEM REQUIREMENT SPECIFICATIONS

3.1.	Functional requirements	13
3.2.	Non-functional requirements	14
3.3.	Resource requirements	15
3.4.	Hardware resources	15
3.5.	Software resources	16

### CHAPTER 4 : SYSTEM ANALYSIS

4.1.	Technical feasibility	17
4.2.	Economical feasibility	20
4.3.	Operational feasibility	23

### CHAPTER 5: SYSTEM DESIGN

5.1.	Functional design concept	25
5.2.	System development methodology	26

### CHAPTER 6: SYSTEM ARCHITECTURE

6.1.	Use case diagram	28
6.2.	Data flow diagram	30

## **CHAPTER 7: IMPLEMENTATION**

7.1. Language used for Implementation	32
7.2. Platform used for Implementatation	32
7.3. Algorithms used for implementation	33
7.4. Code	36

## **CHAPTER 8: TESTING AND RESULTS**

8.1 Unit Testing	47
8.2 Functional Testing	47
8.3 Results	48

## **CHAPTER 7: CONCLUSION AND FUTURE ENHANCEMENT** 53

## **REFERENCES** 54

## **LIST OF IMAGES**

<b>Fig 6.1</b>	<b>Overview of the HWN model</b>	<b>28</b>
<b>Fig 6.2</b>	<b>Use Case Diagram</b>	<b>29</b>
<b>Fig 6.3</b>	<b>Data Flow model</b>	<b>31</b>
<b>Fig 7.1</b>	<b>OLPO system implementation with MAB.</b>	<b>33</b>
<b>Fig 8.1</b>	<b>Experiment weight information.</b>	<b>49</b>
<b>Fig 8.2:</b>	<b>The selection ratio of HWN under <math>\varepsilon</math>-Greedy.</b>	<b>50</b>
<b>Fig 8.3</b>	<b>The selection ratio of HWN under the Boltzmann.</b>	<b>50</b>
<b>Fig 8.4</b>	<b>The selection ratio of HWN under the UCB.</b>	<b>51</b>
<b>Fig 8.5</b>	<b>Delay v/s the number of HWN.</b>	<b>51</b>
<b>Fig 8.6</b>	<b>The achieved ratio of packet loss and rate.</b>	<b>52</b>