

## Table of Contents

CHAPTER I .....	7
BLOCKCHAIN .....	7
A Brief History .....	7
The Concept of Blockchain .....	8
Blockchain Architecture .....	9
How Blockchain works .....	11
Security in Blockchain .....	12
CHAPTER II .....	14
Introduction .....	14
Structure of Bitcoin .....	14
How Bitcoin works .....	14
Technical Challenges and Security issues.....	19
PROBLEM STATEMENT .....	22
CONTRIBUTION.....	22
ORGANIZATION .....	23
CHAPTER III .....	24
OVERVIEW OF PROPAGATION MECHANISMS .....	24
ANALYTICAL STUDIES ON PROPAGATION DELAY .....	25
Negative Factors on Propagation Delay:.....	25
Threats and obstacles due to propagation delay:.....	26
COUNTERMEASURES .....	27
CONCLUSION .....	42
CHAPTER IV .....	43
INTRODUCTION .....	43
PROPOSED METHOD .....	43
THE MODEL EXPLANATION.....	44
Standard Protocol: .....	45
Proposed Protocol:.....	45
IMPLEMENTATION DETAILS.....	47
EVALUATION AND PERFORMANCE.....	48
Throughput .....	48
Delay of Time .....	49
Transaction delivery ratio (TDR).....	50
CONCLUSION AND FUTURE WORK.....	52
REFERENCES .....	53