

CONTENTS

APPROVAL PAGE	i
SELF DECLARATION AGAINST PLAGIARISM	ii
ABSTRACT.....	iii
ACKNOWLEDGEMENT.....	iv
PREFACE.....	vi
CONTENTS.....	vii
LIST OF TABLES	ix
LIST OF FIGURES	x
LIST OF ABBREVIATIONS	xi
CHAPTER I INTRODUCTION	1
1.1 Background.....	1
1.2 Problem Identification	3
1.3 Objectives	4
1.4 Scope of Work.....	5
1.5 Research Methodology	5
CHAPTER 2 BASIC CONCEPT	6
2.1 Time Series Forecasting	6
2.2 Understanding Candlestick Chart	6
2.3 Bidirectional Long Short-Term Memory	8
2.4 Bidirectional Gated Recurrent Unit	9
CHAPTER 3 DESIGN MODEL AND SYSTEM.....	12
3.1 System Design	12
3.2 Mounting Dataset	13
3.3 Pre-Processing.....	14
3.3.1 Cleaning Data	15
3.3.2 Data Splitting.....	15
3.3.3 Normalization	16
3.4 Processing.....	16
3.4.1 Build Model BiGRU_BiLSTM.....	16
3.4.2 Training and Validating Model	20
3.5 Model Evaluation.....	20
3.5.1 MAE	20
3.5.2 MAPE	21

3.5.3 RMSE	21
CHAPTER 4 PERFORMANCE ANALYSIS	22
4.1 Comparison of Proposed Model with Benchmark Model.....	22
4.2 Proposed Model Testing Results on Gold Stock	25
4.3 Proposed Model Testing Results on Apple Stock	27
4.4 Proposed Model Testing Results on Silver Stock.....	28
4.5 Proposed Model Testing Results on Oil Stock	30
4.6 Interpreting Actual and Predicted Value Graphics for Investors	32
CHAPTER 5 CONCLUSION	34
5.1 Conclusion	34
5.2 Future Work	35
REFERENCE.....	36