

CONTENTS

LEMBAR PENGESAHAN	i
LEMBAR PERNYATAAN BEBAS PLAGIASI.....	ii
PREFACE	iii
CONTENTS	iv
LIST OF FIGURES	vi
LIST OF TABLES	viii
ABSTRACT.....	ix
CHAPTER I INTRODUCTION	1
1.1 Research Background.....	1
1.2 Research Problem.....	2
1.3 Research Scope	3
1.4 Research Objective.....	3
1.5 Research Benefits	3
CHAPTER II LITERATURE REVIEW	5
CHAPTER III FUNDAMENTAL THEORY	11
3.1 Text Review	11
3.2 Sentiment Classification	11
3.3 Text Preprocessing	12
3.4 Feature Extraction	13
3.5 Word Embedding	13
3.5.1 FastText.....	13
3.5.2 Word2Vec	14
3.6 SVM.....	16
3.7 <i>K</i> -Fold.....	17
3.8 Grid Search	18
3.9 Performance Evaluation	19
3.9.1 Accuracy.....	20
3.9.2 Precision	20
3.9.3 Recall.....	21

3.9.4 F1 Score.....	21
CHAPTER IV RESEARCH METHODOLOGY	22
4.1 Research Description.....	22
4.2 Materials.....	22
4.3 Model Overview.....	23
4.4 Research Phase.....	24
4.5 Research Scenario Design.....	31
CHAPTER V IMPLEMENTATION.....	32
5.1 Implementation of Data Preprocessing	32
5.1.1 Implementation of Dataset Reading	32
5.1.2 Implementation of Data Preprocessing	33
5.2 Implementation of Word Embedding.....	35
5.2.1 Creation of Word Embedding Feature Vector.....	38
5.3 Implementation of the SVM Model and Grid Search Algorithm.....	40
5.4 Implementation of Model Evaluation	43
CHAPTER VI RESULTS & DISCUSSION	44
6.1 Results of Data Preprocessing.....	44
6.2 Implementation Results.....	44
6.2.1 Implementation of FastText	45
6.2.2 Implementation of Word2Vec	45
6.3 Result Grid Search CV	47
6.4 Result of Model Evaluation.....	51
6.4.1 Confusion Matrix	52
6.4.2 Accuracy, Precision, Recall, and F1 Score.....	54
CHAPTER VII CONCLUSIONS AND SUGGESTIONS	56
7.1 Conclusions	56
7.2 Suggestions.....	57
REFERENCES.....	58