TABLE OF CONTENTS

	Page
Acknowledgements	iii
Abstract in Thai	iv
Abstract in English	v
Table of Contents	vi
List of Figures	viii
Chapter 1 General Introduction	1
Chapter 2 Preliminaries	5
2.1 Notations	5
2.2 Several linear systems with time-delay	6
2.3 Definitions and lemmas	14
Chapter 3 Continuous Time Delay Systems	24
3.1 Stability criteria of LPD system with time-delay	24
3.2 Stability criteria of uncertain LPD system	
with time-varying delays	34
3.3 Stability criteria of uncertain linear system with interval	
time-varying delays and nonlinear perturbations	42
3.4 Stability criteria of uncertain linear non-autonomous	
system with time-varying delays	50
Chapter 4 Discrete Time Delay Systems	55
4.1 Stability criteria of LPD system with time-delay	55

4.2	Stability criteria of uncertain LPD system	
	with time-varying delay	63
4.3	Stability criteria of uncertain linear system with interval	
	time-varying delays and nonlinear perturbations	71
Chapter 5	Discontinuous Time Delay Systems	81
5.1	Stability criteria of uncertain impulsive switched system	
	with time-varying delays and nonlinear perturbations	81
5.2	Stability criteria of uncertain impulsive switched LPD	
	time-delay system with nonlinear perturbation	99
Chapter 6	Conclusion	114
Bibliograp	hy	115
Vita		121

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่ Copyright[©] by Chiang Mai University All rights reserved

LIST OF FIGURES

Figure	Page
3.1 The Simulation solution of the system (3.3)	29
3.2 The Simulation solution of the system (3.4)	34
3.3 The Simulation solution of the system (3.8)	41
3.4 The Simulation solution of the system (3.14)	49
3.5 The Simulation solution of the system (3.15) in example 3.4.1	54
4.1 The Simulation solution of the system (4.2)	58
4.2 The Simulation solution of the system (4.3)	62
4.3 The Simulation solution of the system (4.4) in example 4.2.2	71
4.4 The Simulation solution of the system (4.15)	80
5.1 The Simulation solution of the system (5.1) in example 5.1.2	88
5.2 The Simulation solution of the system (5.1) in example 5.1.4	97
5.3 The Simulation solution of the system (5.8) in example $5.2.3$	113

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่ Copyright[©] by Chiang Mai University All rights reserved