# CHAOTIC ANT SWARM OPTIMIZATION TO ECONOMIC

## DISPATCH

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#### ABSTRACT

Economic Dispatch (ED) solution for a power system gives the optimal combination of power output for all the generating cost in order to minimize total fuel cost while satisfying the load demand and operational constraint. Based on the chaotic system theory, this paper presents a Chaotic Ant Swarm Optimization (CASO) to solve ED problems. To evaluate the proposed method, a three unit generating power system was tested in order to obtain the minimum cost of generator. Chaotic Ant Swarm optimization (CASO) algorithm used in this study was implemented by using MATLAB 7.5.0 (R2007b). Results demonstrate that the method can obtain feasible and effective solution.

**Keywords-component:** Chaotic ant swarm optimization; Economic dispatch; Ant colony optimization; Swarm intelligence

# TABLE OF CONTENT

<u>CONTENTS</u>			
DECLARATION			
ACKNOWLEDGEMENTS			
ABSTRACT			
TABLE OF CONTENT			
LIST OF FIGURES			
LIST OF TABLES			
CHAPTER 1: INTRODUCTION 1.1 Overview			
<ol> <li>Problem Statement</li> <li>Objectives</li> </ol>	2 3		
1.4 Scope of Work	3		
1.5 Thesis Organization	4		
CHAPTER 2: LITERATURE REVIEW	6		
2.1 Introduction	6		
2.2 Economic Dispatch	7		
2.3 Economic Dispatch Constraints	11		
2.3.1 Inequality or Generation Limits Constraint	11		
2.3.2 Power Balance Constraint	11		
2.3.3 Total Power Losses, P <sub>L</sub>	12		
2.4 Solving Techniques in Economic Dispatch Problem	13		
2.5 Chaotic Ant Swarm Optimization Method	14		

## CHAPTER 3: METHODOLOGY

	3.1	Introduction			
	3.2	Chaotic Ant Swarm Optimization Algorithm			
		3.2.1	CASO Search Space in Organization Variable	18	
		3.2.2	Determining the Neighbour Selection	20	
		3.2.3	CASO for Solution Coding and Evaluation Function	22	
		3.2.4	CASO Optimization Process	24	
	3.3	Exper	iment Design	26	
	3.4	MATI	LAB Application	29	
		3.4.1	MATLAB Overview	29	
		3.4.2	Overview of the MATLAB Environment	30	
		3.4.3	The MATLAB System	31	
		3.4.4	Application of MATLAB Function	32	
CHAPTER 4: RESULTS AND DISCUSSION		38			
	4.1 Introduction			38	
	4.2	Parameter setting for CASO			
4.3 Example System for unit Generator Parameter			39		
	4.4	Results			
	4.5	Discu	ssion	44	
CHAPTER 5: CONCLUSION				46	
FUTURE	DE	VELOI	PMENT	47	

17

48

CHAPTER 6: REFERENCES