

**BEES ALGORITHM TECHNIQUE FOR SOLVING ECONOMIC
DISPATCH**

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ABSTRACT

This paper presents an application of Bee Algorithm (BA) for solving Economic Dispatch (ED) problem in 6-units and 15-units system. In order to run the BA operation, there are several factors that under consideration such as complete ED problem formulation prohibited operating zones and cost fuel. BA is applied to solve Economic Dispatch (ED) problem to show the efficiency by comparing to those achieved from conventional approaches such as simulated annealing (SA) and Particle Swarm Optimization (PSO). As expected, BA operation more efficiency in terms of lowest fuel cost of generation and faster computational time rather than the conventional approaches.

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CHAPTER 1

INTRODUCTION

1.1 OVERVIEW

Electrical power system known as a medium that used to produce and spread an electrical energy. Electrical power system consist of three major components, there are generation, transmission and distribution. Their plays an important role in order to serve electrical energy to the consumer. Transmission will connected between generator and distribution, where the transmission will act as a transporter to carry electrical energy that produce from the generator. The electrical energy will carry to the distributor to spread the electrical energy to consumer. Electrical energy that transferred via transmission line will face a power losses, this losses will increased the fuel cost. This problem will be analyzed in this thesis so that the electrical energy can meet the power demand that needed with a lower fuel cost.