

**APPLICATION OF PATTERN SEARCH METHOD TO
ECONOMIC LOAD DISPATCH WITH VALVE POINT LOADING**

**This is represented in partial fulfillment for the award of the Bachelor of
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ABSTRACT

This study presents the application of Pattern Search (PS) method in Economic Dispatch (ED) problem. ED is used to optimize the fuel cost of electric energy while at the same time allocate the demand between available generation unit. The optimization of ED in power system is implemented through Optimization Toolbox in Matlab and PS technique is used as solver. In this study, PS algorithm was developed to give an optimal power output of generating unit and minimize the fuel cost. The algorithm was tested on 3 generating unit systems and 13 generating unit systems. The results obtained from the case study have been achieved using Matlab 7.8 and then compared with the results reported in the literature.

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