

**ECONOMIC POWER DISPATCH SOLUTION WITH
NON-SMOOTH COST FUNCTIONS USING
DIFFERENTIAL EVOLUTION**

Thesis is presented in partial fulfillment for the award of the
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ABSTRACT

This thesis proposes a solution for Economic Dispatch problems with non-smooth cost functions using Differential Evolution (DE) algorithm. This technique is to minimize system cost by properly allocating the real power demand amongst the online generating units considering the valve point loadings. A 3-unit generator system is used to test the proposed method. The results obtained show that DE can solve Economic Dispatch with non-smooth cost function successfully. The program for this algorithm has been developed in Matlab 7.6 platform.

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