Dynamic Economic Load Dispatch Considering FACTS devices

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Abstract :

One of the most important issues in the operation of power systems is dynamic economic load dispatch. In reality, there are practical constraints which should be taken into account in this problem. The impact of some constraints such as prohibited operating zones and valve-point effect could result in nonlinearity and non-convexity in this task. To find the optimal point of the system which satisfies constraints, a proper optimization method should be used. This study is presenting a developed version of Harmony Search Algorithm which uses Roulette Wheel concept and a new approach to handle constraints. The proposed method has been used to solve the dynamic economic load dispatch in IEEE 30-bus system. Results demonstrate the capability of the proposed method in solving dynamic economic load dispatch.

Keywords**:** ROULETTE WHEEL METHOD ,HARMONIC SEARCH ALGORITHM , DYNAMIC ECONOMIC LOAD DISPATCH CONSIDERING FACTS DEVICES

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