

## عنوان مقاله:

Optimization of Market Clearing Process in Power System with NSGA Algorithm

# محل انتشار:

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### خلاصه مقاله:

Reactive power and voltage control are one of the most important ancillary services that is a very important role in network stability and optimum utilization of the market. If the independent power system operators, uncertainties in levels of generation, transmission, and distribution in order not to be considered reactive power market clearing, events may lead to drastic changes in the reactive power system voltage instability and even resulting network will be off. In this paper, the objective function that is used in the process of reactive power market clearing optimization constraint that they have been reviewed and modified scenarios. Finally, to settle the right to enter the market despite the lack of definitive reactive activities, the NSGA algorithm is presented that the purpose of this algorithm, creating a compromise between the technical and economic objectives and targets system. This structure introduced by more realistic and reactive power distribution is done in such a way that in case of contingency, interest independent system operator will be better prepared to overcome them, and they sustained fewer expenses due change contracts .with market participants

**کلمات کلیدی:** reactive power, Uncertainty, NSGA algorithm, market clearing, System reliability

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