

# Coordinated Congestion Management in Transmission Systems Operation Planning

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**Abstract** - The aim of this paper is to present a new congestion management system based on genetic algorithm which provides a frame work to assess possible congestions. The congestion management problem has the objective the minimization of the total costs of the measures to avoid congestions. The particularity of the paper is the integration of topological actions in the coordinated congestion management for the short, middle and long term. The functionality of the proposed tool is demonstrated on a test system for an application in the short term congestion management.

**Index Terms** - congestion management, genetic algorithm, network security criteria, redispatch, topological actions

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