Optimal Allocation of SVC, TCSC and UPFC using Kinetic Gas Molecular Optimization and Cuckoo Search Algorithm

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This thesis is divided into four chapters that cover the entire research process. The results are then discussed and analyzed. The first chapter is a brief background that describes the philosophy behind the work. This chapter also contains information on how to organize thesis.

Chapter 2 provides a literature survey on essential topics of research in the field. It starts with a general overview of FACTS devices and intelligent techniques. And it also covers various Meta heuristic optimizations techniques. objective and scope also mentioned in the section.

Chapter 3 explains Applicability of optimization algorithm. Hybrid KGMO-CSA approach is proposed and the proposed approach is tested with IEEE 14, 30, and 57 bus test networks and this is highlighted in this chapter.

Chapter 4 discusses the implementation of proposed method on various scenario and comparative analysis is mentation with various objective function with IEEE 14,30 and 57 bus test networks. summarizes the concluding remarks of the research with suggestions to carry out future work.