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Soft Computing Applications in Modern Power and Energy Systems

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Contents

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Dr. Padhy is a well awarded and honoured scholarly professional at the national and international levels.

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Chaotic Quasi-Oppositional Differential Search Algorithm for Transient Stability Constraint Optimal Power Flow Problem

| Conference paper | First Online: 18 February 2024

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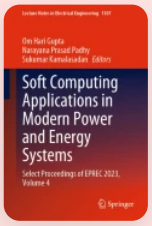

Soft Computing Applications in Modern Power and Energy Systems

(EPREC 2023)

Sourav Paul, Sneha Sultana, Provas Kumar Roy, Nirmalya Dey, Pravin Kumar Burnwal & Devjeet Sengupta

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Abstract

In this research work, the concept of Chaotic Quasi-Oppositional Differential Search Algorithm (CQODSA) has been successfully applied to address the transient stability constraint optimal power flow problem. The effectiveness of the suggested algorithm has been evaluated on WSCC 3-generator, 9-bus system and New England 10-generator, 39-bus system. The recommended algorithm's implementation has been evaluated for different fault conditions with the purpose of demonstrating CQODSA's applicability in this versatile scenario. By contrasting the findings with those of other well-known algorithms, the superiority of the established method has been proven.

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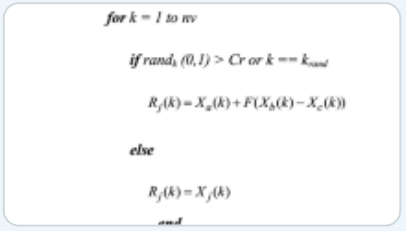

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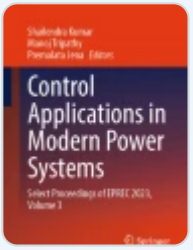

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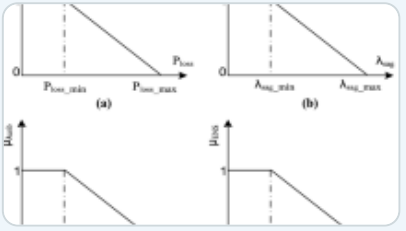

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