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# MODEL PREDECTIVE CONTROL BASED TRANSIENT STABILITY ANALYSIS TYRISTOR CONTROLLED SERIES CAPACITOR

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***ABSTRACT***

***A transient stability is very crucial issue, the tools mitigating such a sensitive issue have crucial significance. Here Model predictive Control based FACTS controller is developed for real time emergency control of WAM based power system. As the WAM based system involves many FACTS devices and controllers, tuning of controller parameter plays important role in proper coordination among various such devices. To explain the theoretical foundation of Model Predictive Control (MPC) and its application to power system an attempt has been made to develop MPC controller for Single machine Infinite bus system (SMIB) including FACTS devices. The proposed method is supported with MATLAB simulation results.***

***KEYWORDS: Model Predictive Control Based FACTS, Application to Power System, Supported with MATLAB***

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