## عنوان مقاله:

A New Approach for Probabilistic Evaluation of Transient Recovery Voltage Across Circuit Breakers in TCSC Compensated Transmission Lines

## محل انتشار:

بیست و نهمین کنفرانس بین المللی برق (سال: 1393)

تعداد صفحات اصل مقاله: 7

## نویسندگان:

Mohammad Hossein Zakernejad - *Department of Power and Control Eng. Shiraz University -Shiraz, Iran*

Mohammad Mohammadi - *Department of Power and Control Eng. Shiraz University -Shiraz, Iran*

Mahdi Mehrtash - *Department of Power and Control Eng. Shiraz University -Shiraz, Iran*

## خلاصه مقاله:

This paper presents a probabilistic approach to analyze Transient Recovery Voltages (TRVs) induced across circuit breaker poles during clearing faults on TCSC series compensated transmission lines. Different uncertainties have been considered and effect of installing Thyristor Controlled Series Capacitor (TCSC) on TRVs has been studied. Risk indices, representing the likelihood that TRV as well as its rate of rise exceed their design values, are also calculated. In order to improve computational burden of the simulation, kernel density estimation via diffusion is applied on Monte Carlo simulation results. Simulation results show the effectiveness of the proposed approach for probabilistic evaluation of TRV. Time-domain simulation studies are performed using Electro Magnetic Transient Program (EMTP) software.

## کلمات کلیدی:

Transient Recovery Voltage (TRV); Thyristor Controlled Series Capacitors (TCSC); Monte Carlo simulation; Kernel density estimation; Diffusion process

## لینک ثابت مقاله در پایگاه سیویلیکا: