



---

# Errors Analysis in Distance Relay Readings with Presence of FACTS Devices

Gaber El-Saady, Rashad M Kamel, Essam M Al

## Abstract:

This paper presents studying the performance of distance impedance relay with the presence of FACTS devices. Also the measured impedance at the relaying point in the presence of series FACTS device SSSC, and shunt FACTS device called STATCOM are obtained. A detailed model of both SSSC and STATCOM is introduced and then the faulty system is studied analytically, where the errors in the measured impedance of distance impedance relay are introduced as a result of the presence of series and shunt FACTS

## Keywords:

Distance Relay, FACTS devices, STATCOM

## Published In:

Innovative Systems Design and Engineering , 4 , 112-130