



# 2020 PSERC Summer Tutorials

## Modeling SVS, TCSC and StatCons in Transient Stability

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This tutorial deals with the modeling for transient stability analysis, of three flexible AC transmission system (FACTS) devices that have been implemented in many power systems; a) Static VAR Systems (SVS), b) Static Condenser (STATCON), and c) Thyristor Controlled Series Capacitor (TCSC). A brief overview of each device and its functional properties will be presented. Three models developed by the WECC modeling working group called SVSMO1, SVSMO2, and SVSMO3 will be presented. Simulations using each of these three models in GE PSLF on the 4-Machine Kundur Test System will be presented. These models are also available in other software packages like PSS/E, DSATools, and PowerWorld.

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**JUNE 16, 2020**

[LINK TO TUTORIAL](#)

**3:00-4:30 P.M. EDT**

(12:00-1:30 P.M. PDT)

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**Vijay Vittal** received the B.E. degree in electrical engineering from the B.M.S. College of Engineering, Bengaluru, India, in 1977, the M.Tech. degree from the Indian Institute of Technology Kanpur, Kanpur, India, in 1979, and the Ph.D. degree from Iowa State University, Ames, IA, USA, in 1982. From 1982 -2005 he was on the faculty of the Department of Electrical and Computer Engineering at Iowa State University. He joined Arizona State University in 2005. He is a Regents' Professor and the Ira A. Fulton Chair Professor with the Department of Electrical, Computer and Energy Engineering, Arizona State University, Tempe, AZ, USA. He is currently the Director of the Power Systems Engineering Research Center, Arizona State University. He is a member of the National Academy of Engineering.

