

## Lehrveranstaltungsankündigung

### LV 431.313 Ausgewählte Themen der elektrischen Antriebstechnik 1

### Power System Applications of Power Electronics (VU)

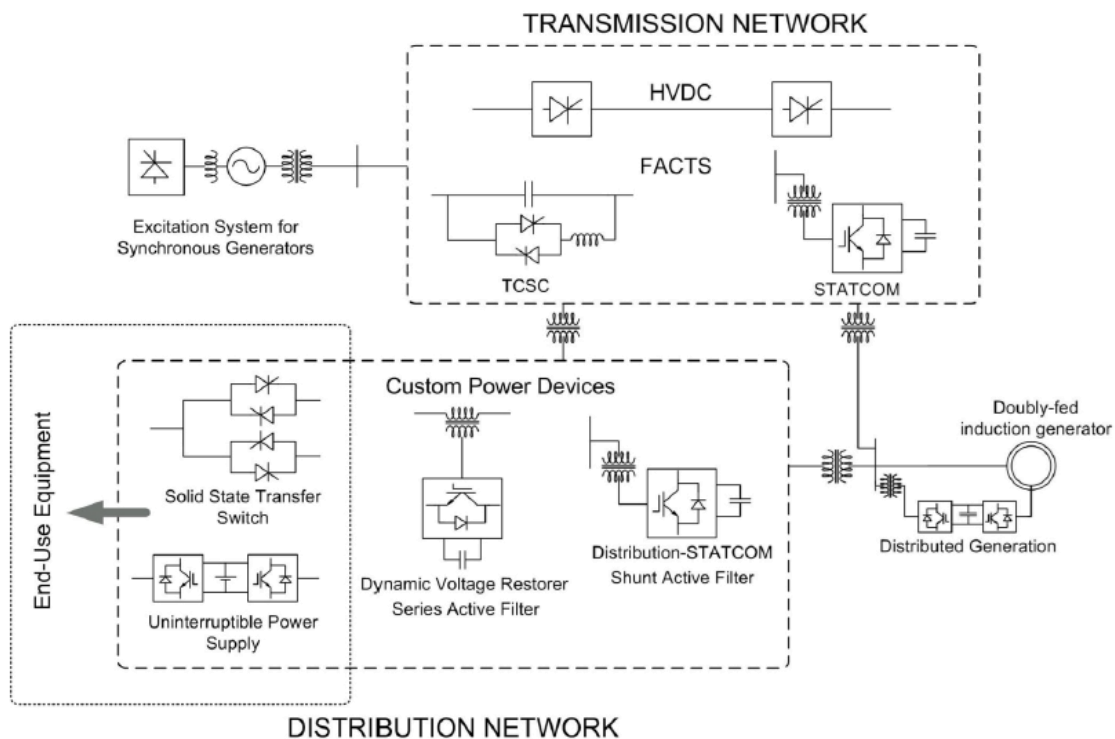
(2SWS/3ECTS)

#### Lecturer:

Prof. Ali Mehrizi-Sani is a professor at Washington State University, Pullman, WA, USA. His areas of interest include power system applications of power electronics and integration of renewable energy resources. Dr. Mehrizi-Sani is an editor of the IEEE Transactions on Power Delivery, the chair of IEEE Task Force on Dynamic System Equivalents, and the secretary of the CIGRE Working Group on Application of Phasor Measurement Units for Monitoring Power System Dynamic Performance.

#### Content:

This course discusses the applications of power electronics for the smart grid focusing on the flexible AC transmission system (FACTS) devices. This course discusses HVDC transmission, series and shunts compensation, and phase shifters. This course will also discuss modeling and control of such devices. The goals of this course are to introduce you to (i) power electronics converter used in high power applications, (ii) applications of power electronics in the smart grid; and (iii) analysis, modeling, and control methods employed for power electronics.



#### Prerequisites:

Undergraduate power electronics course, undergraduate power system analysis course

#### Meeting Times:

11., 13., 18., and 20. November 2014 (second and third week of November, Tuesdays and Thursdays); 8:30-12:00h and 13:00-16:30h, including coffee breaks.