

## SONDERKOLLOQUIUM der TF am 14.02.2014

Sehr geehrte Damen und Herren,

wir laden Sie herzlich zum Kolloquium der TF am **14.02.2014 um 12:30 Uhr** ein. Auf Einladung von *Herrn Prof. Dr. M. Liserre* hält

### **Herr Prof. Costas D. Vournas** **National Technical University of Athens, Greece**

einen Vortrag mit dem Titel:

#### **“New Trends in Distribution Voltage Control to Increase System Loadability”**

#### **Abstract:**

Load tap changers (LTC) are used traditionally to control the distribution side voltage, while capacitor banks are switched on and off to correct power factor during load variations. The problem with this practice is that LTC tap adjustment is contributing to load recovery after a contingency and the dynamic load recovery is one of the main mechanisms leading to voltage instability. Although significant changes have been introduced in distribution systems, such as distributed generation connected through power electronics converters, solid state transformers, etc., the conventional voltage control practice has not been revisited. This presentation compares the effectiveness of alternative control methods for distribution voltage control, which include LTCs, switched capacitors, SVC and StatCom, and investigates the effect of controlling primary (transmission side) voltage. The comparison of alternative control strategies is made through the maximum power transfer achieved in a radial power system.



**Costas D. Vournas** received the Diploma of Electrical and Mechanical Engineering from the National Technical University of Athens (NTUA) in 1975, the M.Sc in Electrical Engineering from the University of Saskatchewan, Saskatoon, Canada in 1978, and the NTUA Doctor of Engineering degree in 1986. He is currently Professor in the Electrical Energy Systems Laboratory of the School of Electrical and Computer Engineering of NTUA. He has published more than 100 papers in International Journals and Conferences and has co-authored the book “Voltage Stability of Electric Power Systems”. His research interests are in the area of power system dynamics, stability, and control and include voltage stability and security analysis, wind generator integration in power systems, as well as the effect of deregulation on power system operation and control. He is member of CIGRE and the Technical Chamber of Greece and a Fellow of IEEE since 2005

**Veranstaltungsort ist wie immer der Vortragsraum der Technischen Fakultät („Aquarium“) im Gebäude D, Kaiserstraße 2, 24143 Kiel. Wir erwarten eine interessante Veranstaltung und freuen uns über Ihr Erscheinen.**

Mit freundlichen Grüßen  
i.A. Claudia Martin

Technische Fakultät der CAU, Kaiserstr. 2, D-24143 Kiel  
Tel. +49 431 880-6001, Fax +49 431 880-6003, e-mail [dekanat@tf.uni-kiel.de](mailto:dekanat@tf.uni-kiel.de)