

AVVISO DI SEMINARIO

16 marzo 2010, Aula 5.7, 16.00 – 17.00

“Voltage Security Assessment and Protection against Voltage Collapse”

Costas Vournas

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This talk will give a short introduction to Voltage Security Assessment (VSA) including the challenges facing the application of on-line VSA. Contingency analysis and the determination of pre-contingency and post-contingency loadability limits will be discussed, as well as the computation of available transfer capabilities. Emphasis will be given to the quasi steady state (QSS) simulation method for long-term voltage stability analysis, which has proved efficient enough for on-line limit calculations. A short description of the on-line VSA application, which is in operation at the Control Center of the Hellenic power system, will follow. The problem of early identification of an imminent voltage instability and the protection measures that can be taken in such an event will be also discussed.



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 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 he has co-authored with Dr. T. Van Cutsem 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.