Avviso di seminario
22 febbraio 2008, Aula 5.6, 15.00 – 16.00

Power system transient analysis in the frequency domain: a MoM-AOM approach

Keyhan Sheshyekani
Ph.D. Student
Amirkabir University of Tech., Electrical Engineering Dept., Tehran. Iran.

Visiting Ph.D. Student, Swiss Federal Institute of Technology (EPFL).
Lausanne-Switzerland

Summary:

The seminar aims at presenting a pure frequency domain approach for the transient analysis of power systems. The method entirely works in frequency domain, so it can consider the effect of soil conductivity in the calculations. It is also well suited to take into account the frequency dependence of the system apparatuses, while it gives one the ability to investigate the nonlinear loads in frequency domain.
The work takes the advantage of frequency domain solution of the governing electric field integral equation (EFIE) for the grounding system using Method of Moment (MoM) The nonlinearities are treated subsequently by an microwave approach called Arithmetic Operator Method (AOM).