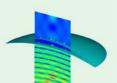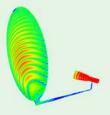# FEKO Workshop

April 2, 2009, EMSS Building, Technopark, Stellenbosch, South Africa

ABOUT FEKO

FEKO is a suite of tools that is used for electromagnetic field analysis of 3D structures. FEKO simulations are based on the Method of Moments (MoM) approximation to Maxwell's equations and features several extensions to the MoM for the solution of complex problems, including large structures (MLFMM) and human tissue (FEM). Various output parameters can be computed and displayed in a number of formats to make FEKO a leading electromagnetic simulation software suite.
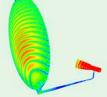
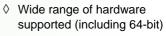| *Solution Methods*	*Applications*	*Special Features*
◊ Method of Moments (MoM), extended to a wide range of applications e.g. dielectric volumes, planar multilayered structures, dielectric and magnetic coatings, thin dielectric sheets, ground plane reflections, periodic boundary conditions. ◊ Multilevel Fast Multipole Method (MLFMM) ◊ Finite Element Method (FEM) ◊ Physical Optics (PO) ◊ Geometrical Optics for dielectrics (GO) ◊ Uniform Theory of Diffraction (UTD)	◊ 3D Antenna design ◊ Microstrip antennas (planar and conformal) ◊ Microstrip circuits ◊ Antenna placement ◊ EMC analysis (including complex cable harness) ◊ Dielectric bodies (SAR) ◊ Scattering analysis (RCS)	◊ True hybridisation (MoM with FEM, PO, GO, UTD) ◊ Parallel processing ◊ Out-of-core solution (memory swapped from RAM to hard drive) ◊ Wide range of hardware supported (including 64-bit) ◊ Time domain data (TIMEFEKO manages the excitation pulse description and required FFT) ◊ Optimisation (fully specified in CADFEKO GUI) ◊ Adaptive Frequency Interpolation (AFS)

EVENT INFORMATION

This workshop, which is scheduled for the same week as the South African IEEE AP/MTT Conference, will introduce participants to FEKO and its industrial applicability. Participants are welcome to suggest specific areas of interest to focus on during the workshop. Participants will have the opportunity to discuss their own electromagnetic simulation needs with the FEKO team.
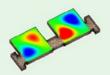
Attendees:
The workshop is open to attendees from industry, as well as academic staff from educational institutions.
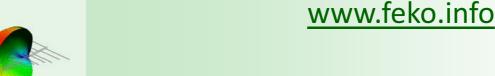
Registration:
The deadline for registration is March 20, 2009. Please register at http://www.feko.info/events

Contact:
For more information, please contact FEKO_distributor@emss.co.za

www.feko.info

FEKO is a product of EM Software & Systems - SA (Pty) Ltd

EMSS