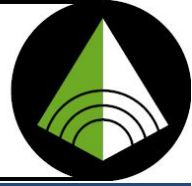


Comprehensive  
Electromagnetic  
Solutions

FEKO



## **Workshop title:**

FEKO for comprehensive electromagnetic analysis

## **Presenter:**

Dr Matthys M. Botha ([mmbotha@emss.co.za](mailto:mmbotha@emss.co.za))

[www.feko.info](http://www.feko.info)

EM Software & Systems-SA (Pty) Ltd

## **Abstract:**

This workshop will introduce the various numerical techniques available within FEKO and their relative merits in the solution of different electromagnetic (EM) problems. Important modelling features will be highlighted. Various challenging example analyses will also be discussed, including installed patch antenna arrays, reflector antennas, naval and aerospace antenna placement, naval radiation hazard analysis, etc.

FEKO provides a comprehensive EM simulation solution, based on the accurate full wave method of moments (MoM) with various state-of-the-art extensions. The leading multi-level fast multipole method (MLFMM) and the hybridisation of the MoM with asymptotic high frequency techniques allow users to move beyond the computational resource limits of conventional full-wave solvers, providing solutions in cases where the electrical problem size is extremely large. Several techniques, including the finite element method (FEM) are available for the modelling of dielectric regions. Typical applications of FEKO include the analysis of antennas, antenna placement, EMC problems, bio-EM compliance, microwave components, 3D EM circuits, radomes and scattering problems (RCS).