Post-modern Electromagnetics: Using Intelligent MaXwell Solvers
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DESCRIPTION

Presenting innovative, promising and unconventional techniques, Post-modern Electromagnetics outlines the essential tools for the creation of numerical methods. Hafner offers a comparative analysis of the fundamental computational electromagnetics methods and proposes future adaptive strategies. Complementary to Max-1: A Visual Electromagnetics Platform, this unique text challenges current thinking and provides guidance through the solution of practical problems. Features Include:

* Outline of Maxwell theory from simple material properties to complex media and wave equations

* Discussion of intelligent optimization strategies such as genetic algorithms designed to improve the performance of existing techniques

* Applications section demonstrating solutions in statics, scattering, gratings, antenna, antenna arrays, guided waves, resonators, coupling and waveguide discontinuities

* Explanation of the background to numerical methods showing how the various approaches to computational electromagnetics can be generalized and combined

Students and researchers interested in advanced numerical approaches and design engineers developing new codes for computational electromagnetics will benefit from this exploration of creative electromagnetics solutions.
ABOUT THE AUTHOR


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