Two requisite tools in the optimal design of electromagnetic devices

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Abstract

The requisite methodology for performing optimal design--the synthesis of devices from specified performance standards--is now in place. Software that is reliable and transparent to the user is required. If this could be accomplished, then these sophisticated design methods would be quickly accepted in industry. Two of the requisite tools for such automatic implementation are presented: a parametrized mesh generator that allows the design iterations to proceed without interruption, and an optimization algorithm that takes care of different object function shapes, using different optimization algorithms, including the principle of tunneling.

Indexed keywords

Engineering controlled terms: Computer Programming--Algorithms; Computer Software; Optimization

Engineering uncontrolled terms: EM devices; Mesh generators; Optimization algorithms

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