2007-10-15

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IEEE

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Abstract:

A genetic algorithm (GA) optimization design of patch antenna has been performed using surface integral equation (SIE), method-of-moments (MoM) solution. The electromagnetic engine procedure is based on the Matlab code by Makarov and the idea of GA used is based on the book by Randy L. Haupt. The main aim of the paper is to use GA in finding the proper antenna configuration (parameters) and optimizing its performance in a given frequency range. Sample results are presented, which show the effectiveness of the approach.