

## Modeling and Simulation of Practical Metamaterial Structures

**Authors :** Ridha Salhi, Mondher Labidi, Fethi Choubani

**Abstract :** Metamaterials have attracted much attention in recent years because of their electromagnetic exquisite proprieties. We will present, in this paper, the modeling of three metamaterial structures by equivalent circuit model. We begin by modeling the SRR (Split Ring Resonator), then we model the HIS (High Impedance Surfaces), and finally, we present the model of the CPW (Coplanar Wave Guide). In order to validate models, we compare the results obtained by an equivalent circuit models with numerical simulation.

**Keywords :** metamaterials, SRR, HIS, CPW, IDC

**Conference Title :** ICCIT 2016 : International Conference on Computer and Information Technology

**Conference Location :** Istanbul, Türkiye

**Conference Dates :** February 15-16, 2016