

# Abstracts

## Knowledge based neural models for microwave design

---

*Fang Wang and Q.J. Zhang. "Knowledge based neural models for microwave design." 1997 MTT-S International Microwave Symposium Digest 2. (1997 Vol. II [MWSYM]): 627-630.*

Neural networks have recently gained attention as a fast and flexible vehicle for microwave modeling, simulation and optimization. In this paper a new microwave-oriented knowledge based neural network (KBNN) is proposed, in which microwave knowledge in the form of empirical functions or analytical approximations are incorporated into neural networks. The proposed technique enhances neural model accuracy especially for unseen data and reduces the need of large set of training data. The advantages of the KBNN are demonstrated by MESFET and transmission line modeling examples.

 [Return to main document.](#)