Abstracts

A systematic approach to a reliable neural model for pHEMT using different numbers of training data

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A systematic approach is presented to achieve a reliable neural model for microwave active devices with different numbers of training data. The method is implemented for a small-signal bias depended modeling of pHEMT with different numbers of training data. The errors for different numbers of training data have been compared to each other and show that by using this method a reliable model is achievable even though the number of training data is considerably small. The method aims at constructing a model which can satisfy the criteria of minimum training error, maximum smoothness (to avoid the problem of overfitting), and simplest network structure.

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