

**An Adaptive Strategy to Design  
the Structure of Feedforward Neural Nets**

*B. Malakooti*

Case Western Reserve University

U.S.A.

*Y. Zhou*

Case Western Reserve University

U.S.A.

**Abstract**

In this paper an adaptive strategy for design of feedforward artificial neural nets is developed. The procedure obtains the minimum number of nodes and links for representing the mapping of inputs to outputs. The procedure starts with an initial minimum number of nodes and increases number of nodes and links until the representation is completed. A learning algorithm that changes its step size and hence facilitates a faster rate of learning and convergence is developed.

*Keywords:* Artificial Neural Nets, Adaptive Learning, Multiple Criteria Decision Making.