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(54) Title of the Invention: **Training of oscillatory neural networks**  
 Abstract Title: **Training of oscillatory neural networks**

(57) The network comprises at least one network layer in which a plurality of electronic oscillators, interconnected via programmable coupling elements storing respective network weights, generate oscillatory signals at time delays dependent on the input signal to propagate the input signal from an input to an output of that layer. The network is adapted to provide a network output signal dependent substantially linearly on phase of oscillatory signals in the last layer of the network. The method includes calculating a network error dependent on the output signal and a desired output for the training sample, and calculating updates for respective network weights by backpropagation of the error such that weight-updates for a network layer are dependent on a vector of time delays at the input to that layer and the calculated error at the output of that layer.

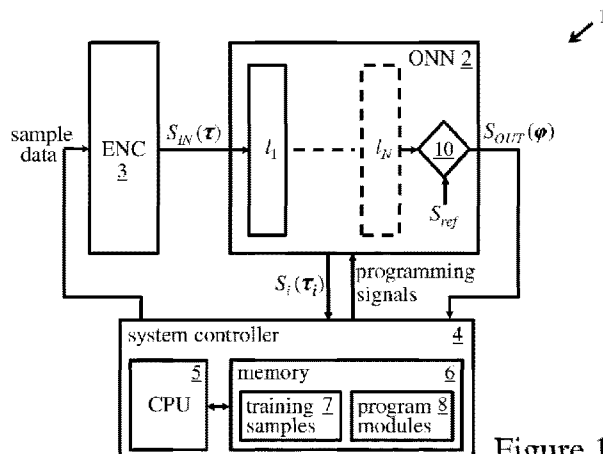


Figure 1