Dynamics of Bidirectional Associative Memory Networks with Processing Delays

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Abstract: A mathematical model describing the dynamical interactions of the bidirectional associative memory networks, incorporating among other things processing time delays, has been proposed in this paper. The existence and stability characteristics of the equilibrium patterns have been discussed. Results on local asymptotic stability of the equilibrium patterns have been presented. Three sets of easily verifiable sufficient conditions describing the global stability of the equilibrium patterns of these networks are obtained.

Keywords: *Bidirectional associative memory networks; global stability.*

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