CHAPTER 4

Conclusion

In this work, we have investigated the exponential stability for uncertainties neutral-type neural networks with time-varying delays.

The interval time-varying delays include state and neutral delays, which means that the delay functions are bounded below but not restricted to be zero. Both time-varying state and distributed delays are continuous functions which are not necessarily differentiable.

Base on Lyapunov-Krasovskii theory and Liebniz-Newton's formula, we have formulated new sufficient conditions for exponential stability of the systems in term of LMIs.

Numerical examples are given to illustrate the effectiveness of the theoretic results which show that our results are less conservative than some existing results in the literature.