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خلاصه مقاله:

In this paper, linear matrix inequality (LMI) approach for synchronization of chaotic fuzzy cellular neural networks (FCNNs) with discrete and unbounded distributed delays based on sampled-data controlis investigated. Lyapunov-Krasovskii functional combining with the input delay approach as well as the free-weighting matrix approach are employed to derive several sufficient criteria in terms of LMIs ensuring the delayed FCNNs to be asymptotically synchronous. The restriction such as the time-varying delay required to be differentiable or even its time-derivative assumed to be smaller than one, are removed. Instead, the time-varying delay is only assumed to be bounded. Finally, numerical examples and its simulations are provided to demonstrate the effectiveness of the derived results.

کلمات کلیدی:

Chaos, Fuzzy cellular neural networks, Linear matrix inequality, Sampled-data control, Synchronization

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