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Simulation and synthesis of TS fuzzy system using parallel distribution compensation technique

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Abstract

This paper discuss about the simulation and synthesis of Takagi–Sugeno fuzzy system for a decentralized stabilization problem using parallel distribution compensation technique. In general if the inter connection link between any two dual subsystems is not in order and also not in a corresponding state that leads to the system to be in unstable condition. Here the fuzzy control is employed which has parallel distributed compensation technique for each and every subordinate system that is joined in which it depends on the power of the

intercommunication. On the basis of Lyapunov criterion some ideal conditions are evolved for and by using linear matrix inequalities, effective compensation can be made for getting system in steady state condition. Hence by combining the fuzzy system in large scale with the fuzzy controller the system is noticeably steady one. In this paper a calculated sample is assumed to describe the controller and its effects and using above techniques the steady state condition of larger system can be obtained.

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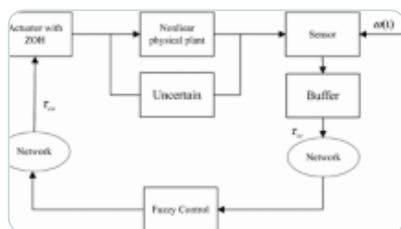
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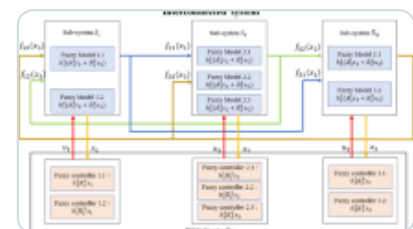
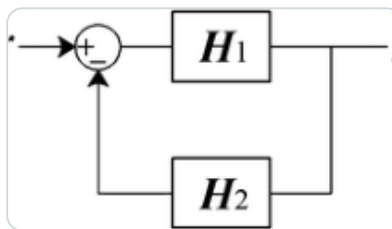
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