Chaos Synchronization and Chaos Control for Integral and Fractional Order Motor System

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ABSTRACT

In this thesis, synchronization by linear feedback control and adaptive control via a system variable, and global synchronization of three coupled chaotic systems with ring connection are achieved, and using conception of Pecoro and Carroll for complete, lag and anticipated synchronization are applied in BLDCM system. The generalized complete, lag and anticipated synchronization is presented in this thesis. In general, the chaotic behavior is found in nonlinear autonomous systems with order 3, in this thesis, we presented that chaos exists in the fractional order BLDCM system with order less than 3 and more than 3, and synchronization for fractional order of identical and different chaotic system are also achieved.

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