CONCLUSION

Conclusion

In this thesis, the studies on finite-time stability of various types of multi-term fractional-order dynamical systems have been studied. The second chapter consists of the multi-term nonlinear fractional-order system and illustrated the finite-time stability results by using the Laplace transform, Mittag-Leffler function and generalized Gronwall inequality. The third chapter provided that the finite-time stability of multi-term fractional-order time delayed system by utilizing the extended form of generalized Gronwall approach. Fourth chapter dealt with the finite-time stability of impulsive nonlinear multi-term fractional-order system with existing of time delay. In fifth chapter, the finite-time stability of nonlinear multi-term fractional-order system with existing of multiple time delay have been discussed. The finite-time stability of nonlinear fractional integrodifferential system with multiple time delay have been illustrated in the sixth chapter. Finally the last chapter consists of finite-time stability of impulsive nonlinear multi-term fractional system with existing of multiple time varying delay. This thesis provides some new set of sufficient conditions for the finite-time stability of the considered systems. Moreover the examples are provided in each chapter to illustrate the usefulness of the results.

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