Abstract

The objective of this paper is to design an efficient control scheme for car suspension system. The purpose of suspension system in automobiles is to improve more comfortable riding and good handling with road profile. A nonlinear hydraulic actuator is added to passive suspension system in parallel with damper. The Particles Swarm Optimization (PSO) is used to design a Fuzzy controller for active suspension system. The designed controller is applied for quarter car suspension system and result is compared with passive suspension system model. Simulation results show good performance for the designed controller.

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Index Terms

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Active suspension system, FLC, PSO.