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Analysis of active suspension control policies for vehicle using robust controllers (Article)

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Abstract

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Better ride comfort and controllability of vehicles are pursued by automotive industries by considering the use of suspension system which plays a very important role in handling and ride comfort characteristics. This paper presents the design of an active suspension of quarter car system using Robust H-infinity, Robust H₂, Robust Mu-synthesis controllers with passive suspension technique. Parametric uncertainties were also considered to model the non linearities associated in the system. Numerical simulation was performed to the designed controller. Results shows that inspite of introducing uncertainties, the designed active controller improves ride comfort and road holding of the car when compared to the traditional passive suspension system. © 2019 SERSC.

SciVal Topic Prominence ⓘ

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