

# Simulation Study on Active Seat Suspension for a Small Vehicle

by

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## Abstract

To improve the riding comfort of the driver's seat, we have proposed an active suspension system for a heavy-duty truck. In this study, the control mechanism of the active seat suspension was designed for a small vehicle such as a community car, using an optimal control method. An operability improvement for senior citizens, vibration isolation for babies and riding comfort improvement on unpaved road can be expected. In order to examine the effectiveness of the system, simulations were performed.

**Keywords:** Active Seat Suspension, Riding Comfort, Community Vehicle, Electric Vehicle, Numerical Simulation, Feedback Control, and Feedforward Link

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