



Vehicle Dynamics Estimation using Kalman Filtering: Experimental Validation (Hardback)

By Moustapha Doumiati, Ali Charara, Alessandro Victorino

ISTE Ltd and John Wiley Sons Inc, United Kingdom, 2012. Hardback. Condition: New. New. Language: English . Brand New Book. Vehicle dynamics and stability have been of considerable interest for a number of years. The obvious dilemma is that people naturally desire to drive faster and faster yet expect their vehicles to be infinitely stable and safe during all normal and emergency maneuvers. For the most part, people pay little attention to the limited handling potential of their vehicles until some unusual behavior is observed that often results in accidents and even fatalities. This book presents several model-based estimation methods which involve information from current potential-integrable sensors. Improving vehicle control and stabilization is possible when vehicle dynamic variables are known. The fundamental problem is that some essential variables related to tire/road friction are difficult to measure because of technical and economical reasons. Therefore, these data must be estimated. It is against this background, that this book's objective is to develop estimators in order to estimate the vehicle's load transfer, the sideslip angle, and the vertical and lateral tire/road forces using a roll model. The proposed estimation processes are based on the state observer (Kalman filtering) theory and the...



[READ ONLINE](#)
[2.32 MB]

Reviews

Unquestionably, this is actually the very best job by any article writer. I have read and that i am certain that i am going to planning to go through once again once more in the foreseeable future. I realized this publication from my i and dad advised this pdf to find out.

-- **Rusty Hamill Sr.**

Merely no words to clarify. I could comprehend almost everything using this published e publication. It is extremely difficult to leave it before concluding, once you begin to read the book.

-- **Lori Terry**