

عنوان مقاله:

Estimation of Vehicle Velocity and Slip with an Experimental Study based on Fuzzy Logic and Kalman Filter

محل انتشار:

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خلاصه مقاله:

Finding the exact longitudinal speed of the vehicle is crucial for an accurate estimation of the slip rate. The vehicle slip rate is directly depended on the vehicle speed. In most of the vehicles, speed sensor is installed on differential bracket. On severe braking, on slippery surface, wheel-lock threshold would be reached. Despite the fact, in this case the wheel speed sensor will report zero velocity which is not reliable. This paper presents a developed method with experimental study that can estimate vehicle speed with an error of less than 4 % in different conditions of driving using Kalman filter and fuzzy rules

کلمات کلیدی:

Experimental study, Fuzzy logic, Kalman filter, Offset estimation, Vehicle speed

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