

Analysis of the Road Surface Condition

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Abstract: When a vehicle runs, the vibration that a road surface causes brings about discomfort of the driver and consumption of the surplus fuel. When a road surface state is bad, it is necessary to detect the irregularity of the road surface. For example, they photograph the dispersion dynamic scattering pattern that inspection light was scattered in on a road surface with a camera and detects the irregularity of the road surface and detects the irregularity by a millimeter wave sensor. However, they judge only an irregularity in these studies and do not think about the influence on body. In this study, we measure run data and detect the irregularity of the road surface. There are suspension pressure, an incline, wheel number of revolutions, and a rudder angle in the measurement data for the data which we use. We measure them at two places of the common road surface and rough road surface as a running place. We performed FFT analysis from the suspension pressure of the data which we measured and set the threshold of a common road surface and rough road surface.