

ABSTRACT

The process for designing a vehicle is hard, for a long time, and expensive. It is because the designer must know the knowledge of mechanical engineering, road condition of the vehicle, application of the vehicle and driver behavior. Sometimes, the vehicle designer's lack of tools and data that support them to design a vehicle. With the fast development of Internet of Things (IoT) technology, it has become convenient to develop a mobile data acquisition that can collect physical data directly on a vehicle.

With Data Acquisition System integrated with Internet of Things Capabilities, generate a real data from real condition is not a problem. Generating a physical condition of the frame is easier. And with further analyzation by using Finite Element Analysis, the process of designing a vehicle will be helped and more efficient, as well as more accurate because the data is based on the real condition of the mining