Abstract

Technological advances in the world of motor vehicles have led to advances in the automotive industry, and the users of motorized vehicles have also enjoyed the technologies contained in these vehicles. However, from many negligent motor vehicle users to choose the vehicle, many factors can cause the user to neglect to maintain the vehicle and one of them is the lack of information or knowledge from the vehicle itself. For the solution to this problem, it is proposed to check the condition of the motor through vibrations generated from the engine of the motor. Using the IMU sensor, which uses an accelerometer to capture vibration data. Then the data obtained will be filtered using Low Pass Filter so that the noise contained in the data is not processed. The filtered data will be conducted using similarity checking using Normalized Correlation to determine the similarity of vibration signals to the data referensi. With 3 models the indication of the motor engine condition is good, poor and not good, obtained based on Similarity Checking to test and referensi data.

Keyword : Low Pass Filter, Similarity Checking , Normalized Correlation, vibration signals, IMU sensor.