HAND-ARM VIBRATION (HAV) TRANSMITTED BY HANDLE AMONG YOUNG MOTORCYCLISTS

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ABSTRACT

The purpose of this study is to evaluate the rate of vibration which transmitted by handle of motorcycle among young motorcyclistSrand to ensure that the vibration occur does not exceed the exposure limit value for hand arm vibration (HAV). In addition, comparison of the vibration occur by the handle between moped type and scooter type have been made which are Yamaha LC 135 has been selected for moped type and Yamaha Ego S for scooter type. The riders were among young males' students of Universiti Teknologi Mara (UiTM) Shah Alam. The data was collected based on the testing to get the rate of vibration which occurs by handles using 'Sound Level Vibration Meter' and attached to the accelerometer 4505A. Based on the result, the rate of vibration which transmitted by both motorcycle in term of maximum peak acceleration averagely are in range of 8 m/s^2 to 14 m/s^2. Based on the analysis, the vibration transmitted by handle of scooter is greater than moped. However, the percentage different between both of them are too small. The vibration occurs by the handle of motorcycle can be classified as not dangerous and safe from hand arm vibration exposure to the riders since the percentage exposure mostly below 1% based on the maximum exposure value.

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