Abstract

Vehicles (air, land and water), machinery (for example, those used in industry and agriculture) and industrial activities (such as pilling and blasting), expose people to periodic, random and transient mechanical vibration which can interfere with comfort, activities and health. Metro is one of the important and famous public transportations all over the world. High magnitude of whole-body vibration formed by the Metro may cause diseases and health problems to the human especially a low back pain. It leads to a muscular and bone system disorder of the neck and back. A previous epidemiological study reported that low-back pain (LBP) is spread among people exposed to whole-body-vibration frequently. LBP was significantly related with the levels of uncomfortable road vibrations, and, importantly, increased with total mileage. The aim of this study is to give an account of daily exposure to vibration and vibration dose value exposed to the passengers travelled using Cairo metro by measuring the whole body vibration on the

References

evaluation of vibration containing multiple shocks”. ISO 2631-5: (E).


Index Terms

Computer Science

Signal Processing

Keywords

Whole-body vibration (WBV) vibration dose value (VDV) low back pain (LBP) ISO 2631-1:1997