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Preliminary Noise Assessment Using Mobile Phone Applications at Back Entrance of UiTM Shah Alam

Mohamad Saiful Mohd Raffiah^a, Shariff Che Ibrahim^{a*}

Structured Abstract

Background: Noise pollution presents a notable challenge that can negatively impact the health and overall quality of life for individuals. Conventional noise monitoring techniques tend to be costly and demand expertise from professionals. On the other hand, mobile phone apps provide a practical and user-friendly approach to gauging and evaluating noise levels, though their precision and dependability must be confirmed for particular sites such as the back entrance of UiTM Shah Alam.

Methods: The process of assessing noise pollution included multiple stages. Initially, equipment was installed at the designated sampling area. Three different mobile applications were utilized concurrently to capture noise levels. Measurements were conducted for a duration of 15 minutes at each specific location, with the collected data being logged into the mobile applications. Subsequently, the gathered data was extracted and exported from the mobile devices for additional analysis. Ultimately, the data was scrutinized to evaluate the noise levels present at the site.

Results: The noise monitoring data shows that levels recorded generally stay below the Occupational Safety and Health (Noise Exposure) Regulations 2019 thresholds of 82 dBA for excessive noise and 85 dBA for the noise exposure limit. However, the peak noise level of 76.0 dBA recorded at midday exceeds the environmental noise guidelines for commercial and mixed development zones (70 dBA during the day and 65 dBA at night) as per the 2019 Guidelines for Environmental Noise Limits and Control. This indicates that while the noise levels comply with occupational safety standards, they surpass acceptable environmental noise levels for a university setting.

Conclusion: In conclusion, the noise monitoring indicates that levels generally stay below the thresholds set by the Occupational Safety and Health (Noise Exposure) Regulations 2019. However, the peak noise level recorded during midday exceeds the guidelines for Commercial and Mixed Development zones as per the Guidelines for Environmental Noise Limits and Control 2019. This indicates non-compliance with environmental noise limits at the university, despite adherence to occupational safety standards.

Keywords: Noise Pollution, Mobile Phone Applications, Noise Monitoring, Environmental Noise Limits, Occupational Safety Standards

*Correspondence: sha88@uitm.edu.my

^a School of Chemistry & Environment, Faculty of Applied Sciences, Universiti Teknologi MARA, Shah Alam, Malaysia