

## **Noise Determination at Engineering Faculty in UiTM Shah Alam**

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### **Structured Abstract**

**Background:** Exposure to excessive noise is a significant environmental health hazard, with the possibility to cause a variety of adverse health effects linked to hearing disabilities. Special precautions should be taken to reduce noise exposure, particularly in areas that are sensitive to noise such as hospitals and educational institutions. The purpose of this study is to identify noise exposure level and its impact on those who are exposed to noise. This study is conducted to develop noise mapping level at Engineering Faculty in UiTM Shah Alam.

**Methods:** This study involves a multifaceted approach to assess the noise exposure levels and the awareness of workers regarding the potential health risks associated with noise exposure. The monitoring conducted by using sound level meter within the Engineering Faculty at UiTM Shah Alam. The questionnaires were distributed to students and staff at the Engineering Faculty. The purpose of these questionnaires is to assess the level awareness and understanding of the negative health effects that can be caused by excessive noise exposure. The questionnaire will gather information on the workers' knowledge, attitudes, and perceptions regarding noise-related health risks

**Results:** This study involved selecting three laboratories within the Faculty of Civil and Faculty of Mechanical at UiTM Shah Alam to assess the noise exposure levels. The chosen laboratories were Rock Mechanics Laboratory, Fluid Mechanics Laboratory and Thermodynamics Laboratory. According to the monitoring, there are machine from these laboratories generate noise level which exceeding the excessive noise (> 82 dB(A) and exceeding the noise exposure limit (NEL) (> 85 dB(A)) regulation 2019. Hence, based on these three laboratories it can classified as steady since its variation is within a range of 3 dB(A). Lastly, the data collected from the worker questionnaires will be analysed using SPSS statistical software. The study reveals that there was significant correlation between the level of noise exposure and the awareness of noise-related health issues among students and staff at the Engineering Lab in Engineering Faculty of UiTM.

**Conclusion:** In conclusion, the findings of this was able to quantify the noise exposure levels experienced by the engineering faculty at UiTM. Noise maps were successfully created to visualize the noise conditions within the engineering labs at UiTM. The study investigated the correlation between noise exposure levels and the awareness of noise-related health issues among students and staff in the engineering faculty.

**Keywords:** Excessive Noise, Noise Mapping, NIHL, Awareness

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