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Comparative analysis of noise descriptors in some selected areas in Ilorin Metropolis, Nigeria

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This paper presents the results obtained from environmental noise measurement at selected locations in Ilorin metropolis. Forty-two (42) different locations throughout Ilorin were selected to establish background noise level and dominant noise sources at these selected locations. Noise level measurements and analysis for the locations were based on the noise descriptors L_{Aeq} , L_1 , L_{10} , L_{50} , L_{90} , and L_D . The results from comparative study indicated that the equivalent noise level (L_{Aeq}) and peak noise level (L_1) have the highest and lowest values at road junctions/busy roads (86 dBA, 88 dBA) and low density residential areas (46 dBA, 63 dBA) respectively. The background noise level (L_{90}) has the highest and lowest values at passengers loading parks (73 dBA) and low density residential areas (34 dBA) respectively. The result of this study shows that the major source of noise in Ilorin metropolis can be attributed to traffic noise. Other intrusive noise sources include noise from record player, electric generators, and hawking with loud speakers. Based on the recommendations of CEOH, WHO and HUD, only 6 locations out of 42 are under normally acceptable situation while the noise levels of other areas are not acceptable. Noting the noise emission standards, technical control measures, planning and promoting the citizens awareness about the high noise risk may help relieve noise problem in the metropolis. These data are useful as reference and guideline for future regulations on noise limit to be implemented for urban areas in Nigeria.

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