Study of the noise variability recorded by monitoring stations in Chilean cities

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Abstract
Dynamic noise mapping research has received increasing attention. Progress on low-cost noise monitoring systems and efficient calculation models have recently made this technique feasible. The development of these dynamic models will also influence the accuracy of static noise models. It is known that the CNOSSOS-EU method will be applied in future noise mappings in different cities worldwide. It has been reported that not only average noise levels are related to negative health effects but also its variability. Both the energy of noise peaks and their number generates disturbance to citizens. In 2019, noise monitoring stations were installed on roads having different types of traffic across the cities of Santiago and Valdivia (Chile). This study presents the variability of the sound levels recorded for one month. It is observed that both the distribution and patterns of sound values differ depending upon the type of urban road. These features are important not only in the analysis of average and dispersion values but also for sampling and prediction methods.

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