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CHARACTERIZATION AND EVALUATION OF NOISE POLLUTION IN CLUJ-NAPOCA COUNTY

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Abstract: Today, along with air pollution and waste management, noise pollution is one of the biggest problems facing the population. The aim of the present study is to assess and evaluated the noise level of eight populated areas from Cluj-Napoca, in the same period (March – May) of two successive years, 2022, and 2023. Over the entire experimental period in seven locations out of the total of 8 where the monitoring activities took place (except of the Grigorescu neighborhood), the average values of the noise level exceed the maximum allowed limit.

• Introduction

The urban traffic is the main component of noise, in cities. The high-power cars, motorcycles, mopeds and scooters produce the loudest noises. In Europe, there is more and more talk about taking measures to reduce noise pollution. These measures include installing low noise asphalt on roads, putting more infrastructure for electric cars in cities, promoting active travel like walking or cycling, etc. The aim of the present study is to assess and evaluated the noise level of six populated areas from Cluj-Napoca.

• Material and method

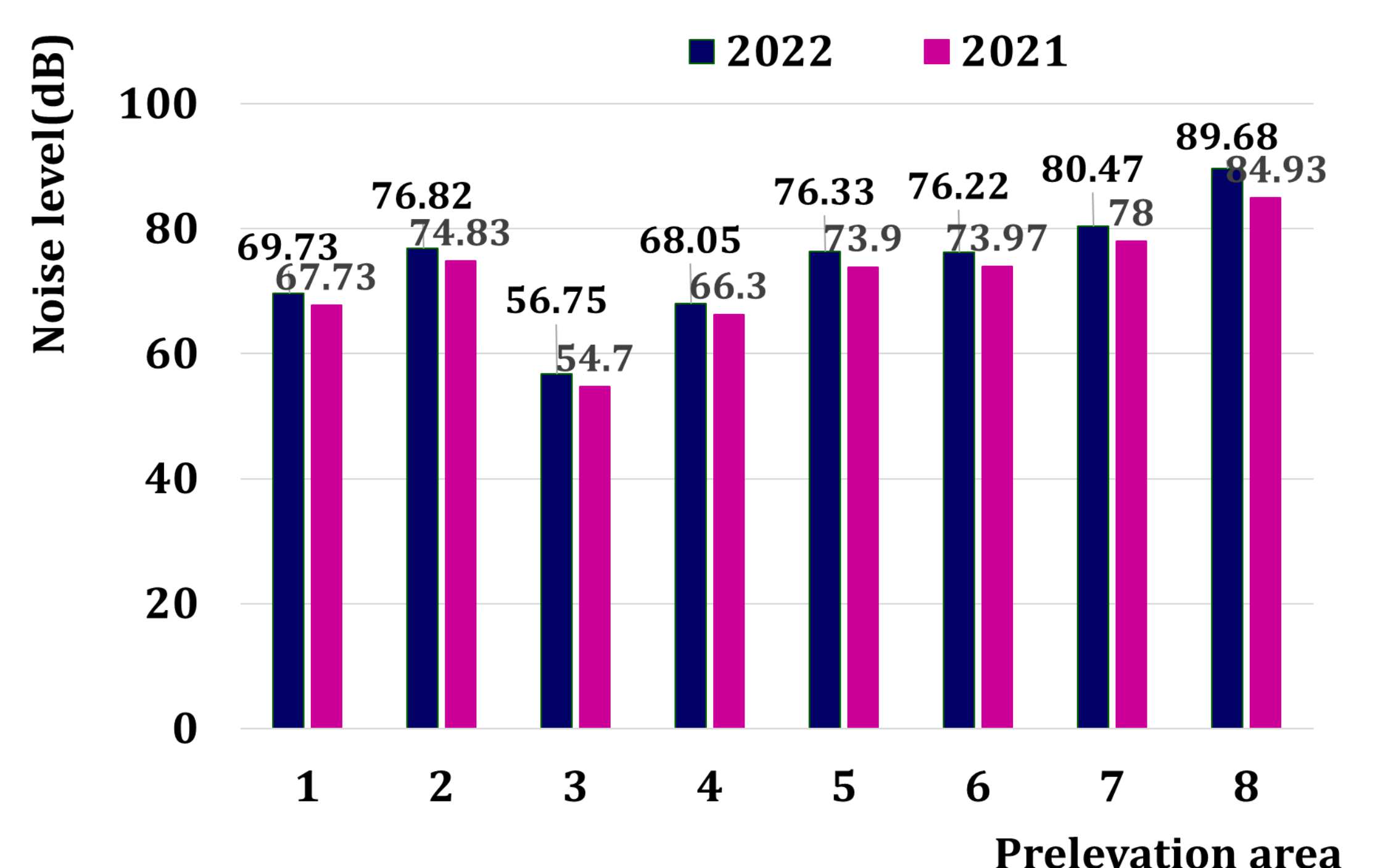
The noise level recording was performed in the same time interval March - May, of two successive years, 2022 and 2023, three times a week, in the selected monitoring points of Cluj-Napoca, located in the districts:

- Center (Heroes Boulevard),
- Gheorgheni (Cipariu Street),
- Grigorescu (Fântânele Street),
- Mănăştur (Calea Mănăştur),
- Mărăşti (Aurel Vlaicu Street),
- Zorilor (Observatorului Street), and
- Railway station
- Airport area.

• Results and discussions

The lowest noise level averages correspond to the experimental sites located in Grigorescu, Gheorgheni and Zorilor districts.

The highest averages of the experimental sites are reported in airport area and in railway stations. Only at the level of the monitored experimental site in the Grigorescu neighborhood are the noise levels below the maximum limit allowed by law.



1 – Zorilor, 2 – Mărăşti, 3 – Grigorescu, 4 – Gheorgheni, 5 – Center 6 – Mănăştur, 7 – Station, 8 – Airoport

Figure 1. The average noise level in the districts of Cluj - Napoca, for the entire experimental period March - May, 2022, and 2023

• Conclusions

Over the entire experimental period in seven locations out of the total of 8 where the monitoring activities took place (with the exception of the Grigorescu neighborhood), the average values of the noise level exceed the maximum allowed limit.