The Comparison of Machine Learning Methods for Urban Noise Classification

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Abstract: The modern urban environment is constantly evolving and changing. With the constant growth of cities, the noise level also increases, which can have a negative impact on the health of residents. The importance of determining and controlling the noise of the urban environment is becoming an increasingly urgent task for city authorities, as well as for scientists and engineers dealing with environmental issues and environmental protection. The article presents a comparative analysis of machine learning models, including a neural network for automating the solution of the problem of noise classification present in the city, describes the spectral characteristics of noise, on the basis of which the implemented models make decisions about the noise class.