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## Automatic estimation of the wind turbine noise with recurrent neural networks

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There is growing interest in the development of renewable energies, particularly wind power. However, wind turbines generate noise that can affect the sound environment of nearby residents.

This study focuses on the isolation of wind turbine noise (WTN) level from the surrounding total noise. Our method is based on a Recurrent Neural Network (RNN) Architecture that captures temporal dependencies in the acoustic signal.

This proposal is compared to Non-Negative Matrix Factorization (NMF) that has shown first promising results on a previous study on simulated sound scenes of wind turbine noise.

Our approach relies on simple RNN Vanilla conducted using an end-to-end trained model, Gated Recurrent Network (GRU), and a Long Short TermMemory (LSTM) trained from scratch and compared in the same dataset to the NMF method.

### Contribution length

Short

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