Abstract

In communication system, noise is very important factor. Like in free space, underwater noise is the result of many contribution. It is the combination of different noises which occur on surface or in deep water. Combination of all noises called as ambient noise which divide in two group i.e. man-made and natural noise. Acoustic signal is used to transmit the underwater data from one place to another place. Here focus on individual statistical analysis of all noises also done the simulation and from that decide, this is Gaussian or not. Generally underwater noise is additive with non-gaussian. Again focus on types of noises. In underwater, different noise occur at different frequency. For ship noise, ship activity is important parameter and for wind noise wind speed is more important. Here consider ship activity is medium and wind speed is 25m/s. An algorithm based on non-gaussian approach allow to generate number of sequence of samples for noise realization and on the bases of kurtosis level decide the gaussianity. Again focus on combination of all noise like noise model and calculate the PSD of individual noise which indicate different noise occur at different frequency.
Underwater Noise and its Statistical Analysis to Qualify the Signal into Gaussian/Nongaussian Category

References

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Index Terms

Computer Science  Signal Processing

Keywords
Noise, Types of noise, statistical analysis, noise model.