

REVIEWER'S REPORT

Manuscript No.: 52654

Date: 07-07-2025

Title:

A Survey on Bio-acoustic Signals Denoising: Comparison of Aerial and Underwater Signal Processing Techniques

Recommendation:

Accept as it is **Yes**
Accept after minor revision.....
Accept after major revision
Do not accept (*Reasons below*)

Rating
Originality
Techn. Quality
Clarity
Significance

Excel.	Good	Fair	Poor
		Yes	
		Yes	
	Yes		
	Yes		

Reviewer Name: Gulnawaz Gani

Reviewer's Comment for Publication.

This survey systematically reviews and compares bioacoustic signal denoising techniques across aerial and underwater domains, highlighting domain-specific challenges and future research directions

Detailed Reviewer's Report

- This survey provides a thorough review of bioacoustic signal denoising techniques, contrasting methods used in aerial and underwater environments.
- It clearly articulates how distinct acoustic properties and noise characteristics in each domain necessitate specialized denoising approaches despite shared fundamental principles.
- The paper effectively categorizes traditional, statistical, and machine learning techniques and proposes future research avenues, such as multimodal fusion and adaptive real-time processing.
- While comprehensive in its scope, a more in-depth quantitative comparison of different methods across varied real-world datasets could further strengthen its practical value.