Abstract

Enlarged Adenoids is a disease which results in the blockage of air passage of infants. These babies who are infected with adenoids will produce high snoring sounds while they sleep. For children suffering from adenoid, it’s a heart breaking scene for a parent to see their small innocent baby could sleep only in a sitting position. The sound of snore produced by such babies is too loud, that it can reach a person at several meters away from the baby. When there is a blockage of air passage due to flu, the snore sound of baby will go high. The adenoid snore sound infected by flu may mislead diagnosing. Here we propose a technique using Degenerate Unmixing Estimation Technique to separate the adenoid snore sound and normal
heart beat sound while doctor examines a sleeping baby, with a case of enlarged adenoids. The snore sound is a noise which needs to be separated to get a clear rhythm of heart sound.

References

- Soichiro Miyazaki, MD, Yoshiaki Itasaka, MS, Koji Yamakawa, MD, Masako Okawa, MD, Kiyoshi Togawa, MD, "Respiratory disturbance during sleep due to adenoid-tonsillar hypertrophy, " American Journal of Otolaryngology, Volume 10, Issue 2, March–April 1989, Pages 143–149. Available online 9 April 2004

- Kari Torkkola, Unsupervised Adaptive Filtering, Volume 1: Chapter 8, Blind separation of delayed and convolved sources 2000: John Wiley & Sons Inc.

Index Terms

Computer Science

Hpc Applications
Keywords
Blind Source Separation  Adenoid  Duet Algorithm  Heart Sounds.