

1. Record Nr.	UNINA9910337648003321
Autore	Borisagar Komal R
Titolo	Speech Enhancement Techniques for Digital Hearing Aids // by Komal R. Borisagar, Rohit M. Thanki, Bhavin S. Sedani
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2019
ISBN	3-319-96821-1
Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (162 pages)
Disciplina	617.89
Soggetti	Signal processing Image processing Speech processing systems Biomedical engineering Optical data processing System safety Computer security Biometry Signal, Image and Speech Processing Biomedical Engineering and Bioengineering Image Processing and Computer Vision Security Science and Technology Systems and Data Security Biometrics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction -- Generation of Speech Signal and its Characteristics -- Information of Adaptive Filters and Noises -- Information of Wavelet Transforms -- Speech Signal Enhancement using Adaptive Filters -- Speech Signal Enhancement using Adaptive Filters and Wavelet Transforms -- Future Research Direction -- Conclusion.
Sommario/riassunto	This book provides various speech enhancement algorithms for digital hearing aids. It covers information on noise signals extracted from silences of speech signal. The description of the algorithm used for this

purpose is also provided. Different types of adaptive filters such as Least Mean Squares (LMS), Normalized LMS (NLMS) and Recursive Least Squares (RLS) are described for noise reduction in the speech signals. Different types of noises are taken to generate noisy speech signals, and therefore information on various noises signals is provided. The comparative performance of various adaptive filters for noise reduction in speech signals is also described. In addition, the book provides a speech enhancement technique using adaptive filtering and necessary frequency strength enhancement using wavelet transform as per the requirement of audiogram for digital hearing aids. Presents speech enhancement techniques for improving performance of digital hearing aids; Covers various types of adaptive filters and their advantages and limitations; Provides a hybrid speech enhancement technique using wavelet transform and adaptive filters.

---