1. Record Nr. UNINA9910350304303321 Autore Sen Soumya **Titolo** Audio Processing and Speech Recognition [[electronic resource]]: Concepts, Techniques and Research Overviews / / by Soumya Sen, Anjan Dutta, Nilanjan Dey Singapore:,: Springer Singapore:,: Imprint: Springer,, 2019 Pubbl/distr/stampa **ISBN** 981-13-6098-7 Edizione [1st ed. 2019.] Descrizione fisica 1 online resource (XIV, 96 p. 41 illus., 3 illus. in color.) Collana SpringerBriefs in Computational Intelligence, , 2625-3704 Disciplina 621.382 Soggetti Computer science Data transmission systems Signal, Image and Speech Processing User Interfaces and Human Computer Interaction Input/Output and Data Communications Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Audio Indexing -- Speech processing -- Feature extraction -- Audio Classification -- Conclusion. This book offers an overview of audio processing, including the latest Sommario/riassunto advances in the methodologies used in audio processing and speech recognition. First, it discusses the importance of audio indexing and classical information retrieval problem and presents two major indexing techniques, namely Large Vocabulary Continuous Speech Recognition (LVCSR) and Phonetic Search. It then offers brief insights into the human speech production system and its modeling, which are required to produce artificial speech. It also discusses various components of an automatic speech recognition (ASR) system. Describing the chronological developments in ASR systems, and briefly examining the statistical models used in ASR as well as the related mathematical deductions, the book summarizes a number of state-ofthe-art classification techniques and their application in audio/speech classification. By providing insights into various aspects of

audio/speech processing and speech recognition, this book appeals a wide audience, from researchers and postgraduate students to those