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| Title | A survey of speaker recognition: Fundamental theories, recognition methods and opportunities | | |
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| Abstract |  |
| Humans can identify a speaker by listening to their voice, over the telephone, or on any digital devices. Acquiring this congenital human competency, authentication technologies based on voice biometrics, such as automatic speaker recognition (ASR), have been introduced. An ASR recognizes speakers by analyzing speech signals and characteristics extracted from speaker's voices. ASR has recently become an effective research area as an essential aspect of voice biometrics. Specifically, this literature survey gives a concise introduction to ASR and provides an overview of the general architectures dealing with speaker recognition technologies, and upholds the past, present, and future research trends in this area. This paper briefly describes all the main aspects of ASR, such as speaker identification, verification, diarization etc. Further, the performance of current speaker recognition systems are investigated in this survey with the limitations and possible ways of improvement. Finally, a few unsolved challenges of speaker recognition are presented at the closure of this survey. | |