

Speaker Recognition, Speech Characteristics, Speech Evaluation, and Modification of Speech Signal— A Selected Bibliography

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Abstract—This paper represents an effort to update and expand an earlier paper, "Speech Analysis, Synthesis, and Processing—A Selected Bibliography," prepared and published by this author at Texas Instruments Inc., Dallas, in 1963. Selections included in this paper will provide the research with a fairly extensive and representative presentation of relevant source material in the areas to which the title refers.

IN 1962, this writer was involved in a study and development program at Texas Instruments Incorporated which was directed toward designing and producing a digital voice communication system. The writer's primary responsibility in this work involved investigating the determinants of speaker recognition and developing statistical models of communication systems. It became necessary to begin an extensive review of the available literature in the related areas. Many readers of this paper were no doubt included in the correspondence initiated to obtain the necessary source documents.

Anyone who has attempted such an undertaking knows how frustrating it is searching through literally hundreds of periodicals in the effort to ferret out relevant articles. One great help to me was Simmons bibliography, "Automation of Speech, Speech Synthesis and Synthetic Speech, A Bibliographical Survey from 1950-1960."¹ Owing to the requests of many researchers and the appreciation for the Simmons bibliography, this writer prepared the paper, "Speech Analysis, Synthesis, and Processing—A Selected Bibliography," published at Texas Instruments, in 1963. Since that time the scope of the literature search has been expanded at the U. S. Army Medical Laboratory, Fort Knox, Ky., and it was felt that the 1963 paper should be updated and expanded accordingly.

The areas to which the selections in this bibliography relate include:

- I. Speaker Recognition
 - A. Speaker recognition by listeners
 - B. Automatic speaker recognition
- II. Speech Characteristics
 - A. Perceived characteristics
 - B. Physical characteristics
 - C. Psychophysical judgments

III. Speech Evaluation

- A. Intelligibility and articulation
- B. Analysis and synthesis

IV. Modification of Speech Signal

- A. Speech processing systems
- B. Compression
- C. Masking.

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Manuscript received October 14, 1965.

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¹IRE Trans. on Audio, vol. AU-9, pp. 191-196, November-December 1961.

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