

# **DSPC Technology Research Summary**

**Research Topic:** Investigation into Speaker Recognition Methods

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## **Description:**

Speaker recognition is the process in which the specific speaker could be automatically recognized based on individual characteristics included in voice waves. It can be principally classified into speaker identification and speaker verification. Speaker identification is the process of determining which registered speaker provides a given utterance. Speaker verification, on the other hand, is the process of accepting or rejecting the identity claim of a speaker. The most popular applications are to use voice as the key to confirm the identity of a speaker are classified as speaker verification.

## **Context:**

The actual realization of speaker recognition systems is to make use of voice in order to verify a speaker's identity for applications to customer-based services, such as voice dialling, banking by telephone, telephone shopping, database access services, information services, voice mail, security control for confidential information areas, and remote access to computers. Obviously, identity verification by voice is far more convenient than using by keys or cards and much safer since voice can never be lost or stolen. Actually, many systems have being developed for future applications; for example, trails combining speaker recognition with telephone cards and credit cards (ATM) are already underway.

## **Aims:**

- History development of speaker recognition
- Special problems and challenges of speaker recognition
- Three main speaker recognition methods:
  - Text-Dependent Speaker Recognition Methods
  - Text-Independent Speaker Recognition Methods
  - Text-Prompted Speaker Recognition Method
- Applications success and future direction

## **Group Responsibility:**

Our group will work as a team. Each member takes on equal responsibility.

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