

## Automatic Speaker Recognition by Computers

Ernst Bunge

Philips Forschungslaboratorium Hamburg, Germany

This paper describes a new modular speaker recognition system consisting of a set of real-time speech analysis processors and a pattern recognition software package.

Within a government sponsored research project, combinations of different speech analysis procedures and different pattern recognition algorithms are compared in order to find optimal subsystems, to be applied to security systems or law enforcement, for given boundary conditions.

In order to find the influence of different pattern recognition techniques, distance measures, quantisation errors and telephone band distortions on the recognition rate of the system for a given data base (2.500 utterances), a study has been carried out, results of which are being discussed.