Dedicated to Professor Ioan A. RUS on the occasion of his 70th anniversary

Comparative study on some parameters of a text independent speaker identification system for Romanian language based on GMM with MFCC vectors

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ABSTRACT.   The speaker recognition technique used here is based on GMM. This approach consists in three phases: parameterization, model training and classification. We compare a model of a speech extracted from an unknown speaker with the models of speakers contained in our database. Models are calculated with EM (Expectation Maximization) algorithm for GMM (Gaussian Mixture Models). We study the influences of several parameters: different texts in the training process and in the testing process, numbers of Gaussians, number of speakers, amount of training data (length of the wav file in seconds), numbers of iterations.

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