



TREN– TURKISH SPEECH RECOGNITION PLATFORM (ThuPmOR1)

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★ Abstract :

TREN (Turkish Recognition ENgine) is a modular, HMM–based (Hidden Markov Model) and speaker–independent speech recognition system whose system software architecture is based on Distributed Component Object Model (DCOM). TREN contains specialized modules that allow a full interoperable platform including a Turkish speech recognizer, feature extractor, end–point detector and a performance monitoring module. TREN has basically two layers: First layer is the central server that distributes the recognition calls to the appropriate remote servers according to their current CPU load of the recognition process after some speech signal preprocessing and the second layer consists of the remote servers which performs the critical recognition task. This component–based architecture enables TREN applicable to distributed environments. TREN is also trained by considering a wide variety of very common words those best represent the Turkish language. In order to obtain a such database a very large word corpus is collected and statistically the widest span of triphones representing Turkish is examined.

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* Abstract : (cont.)

TREN has been used to assist speech technologies which require a modular and multithreaded recognizer with dynamic load sharing facilities.