

## Advances in Artificial intelligence Using Speech Recognition

**Authors :** Khaled M. Alhawiti

**Abstract :** This research study aims to present a retrospective study about speech recognition systems and artificial intelligence. Speech recognition has become one of the widely used technologies, as it offers great opportunity to interact and communicate with automated machines. Precisely, it can be affirmed that speech recognition facilitates its users and helps them to perform their daily routine tasks, in a more convenient and effective manner. This research intends to present the illustration of recent technological advancements, which are associated with artificial intelligence. Recent researches have revealed the fact that speech recognition is found to be the utmost issue, which affects the decoding of speech. In order to overcome these issues, different statistical models were developed by the researchers. Some of the most prominent statistical models include acoustic model (AM), language model (LM), lexicon model, and hidden Markov models (HMM). The research will help in understanding all of these statistical models of speech recognition. Researchers have also formulated different decoding methods, which are being utilized for realistic decoding tasks and constrained artificial languages. These decoding methods include pattern recognition, acoustic phonetic, and artificial intelligence. It has been recognized that artificial intelligence is the most efficient and reliable methods, which are being used in speech recognition.

**Keywords :** speech recognition, acoustic phonetic, artificial intelligence, hidden markov models (HMM), statistical models of speech recognition, human machine performance

**Conference Title :** ICCIT 2015 : International Conference on Computer and Information Technology

**Conference Location :** Toronto, Canada

**Conference Dates :** June 15-16, 2015