Recognition of human speech has long been a hot topic among artificial intelligence and signal processing researchers. In this paper, Pattern recognition and q-Bernstein polynomials have been combined to create computer software designed for the recognition of human speech, and the main principles of speech recognition have been explained in a systematic content. q-Bernstein polynomials, which are mathematical operators, have been applied for pattern recognition, and a new method has thus been developed. Software has been prepared using the Delphi 7 programming language, and with this software, this method has been applied for the processing of verbal expression recognition. In the program as developed, 16000 samples of 8-bit stereo images were computerized. Speech recognition tests were conducted for six words, and information related to the results of this test is provided in this paper.

Reference

- B. Babaali, H. Sameti, The Sharif speaker-independent large vocabulary speech

**Index Terms**

Computer Science  
Signal Processing

**Key words**

- Speech recognition  
- Pattern recognition  
- q-Bernstein polynomials