Abstract

This paper provides comparison between BPNN and BFO for isolated word recognition in English language. In this paper, eleven English words were recorded from ten speakers including both male and female and have been recognized. The features of these spoken words were extracted using Mel Frequency Cepstral coefficient algorithm. Classification is done using back propagation neural network (BPNN) and bacterial foraging optimization algorithm (BFO). In an output we get meaning of that English spoken word in Hindi. This Hindi meaning is also a voice sample. Thus our input is a voice sample and our output is also a voice sample. All this implementation is carried out in Matlab platform. The current research work has successfully compared two algorithms on the basis of their performance namely BPNN and BFO. The research work has analyzed that BFO provides a better accuracy, varying from 15 to 20% more accurate than BPNN.

References

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Comparison of BFO and Back-Propagation Neural Network for Isolated Word Recognition

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Index Terms

Computer Science

Artificial Intelligence
Keywords
Bacterial Foraging optimization  MFCC  Neural networks  BPNN  Speech recognition.