Objective of the work is speaker independent recognition of vowels of British English. Back propagation is one of the simplest and most widely used methods for supervised training of multi layer neural networks. In this paper we use parallel implementation of Backpropagation (BP) on Master – Slave architecture to recognize speaker independent eleven steady state vowels of British English. We perform the recognition task on both sequential and parallel implementation. The performance parameters speed-up, optimal number of processors and processing time are evaluated for both implementations.
Speaker Independent Vowel Recognition using Backpropagation Neural Network on Master-Slave Architecture

- UCI repository of machine learning databases.


- Faramarz Valafar and Okan K. Ersoy, Parallel Implementation of Back-Propagation Neural Network on MASPAR MP-1

Index Terms

- Computer Science
- Artificial Intelligence

Keywords

- Vowel Dataset From Uci
- Backpropagation Algorithm
- Parallel Implementation
- Master-slave Architecture
- Learning Rate