Abstract

The aim of the present study is to investigate and explore the capability of the multilayer perceptron neural network to classify seismic signals recorded by the local seismic network of Agadir (Morocco). The problem is divided into two main steps, the feature extraction step and classification step. In the former, relevant discriminant features are extracted from the seismic signal based on the time and frequency domains. These are selected based on the analysts’ experience. In the latter step, a process of trial and error was carried out to find the best neural network architecture. Classification results on a data set of 343 seismic signals have demonstrated that the accuracy of the proposed classifier can achieve more than 94%.
Seismic Signal Classification using Multi-Layer Perceptron Neural Network

References

Seismic Signal Classification using Multi-Layer Perceptron Neural Network

- Z. Reitermanova, Data Splitting. WDS;10 Proceedings of contributed papers, part I, 31-36, 2010

Index Terms

Computer Science
Pattern Recognition

Keywords
Seismic signal classification multilayer perceptron neural network feature extraction.