

Abstract :

Here, we use the Multilayer perceptron neural network for attenuation of the ground roll from 3D raw seismic data recorded in Algerian Sahara. Firstly, the ground roll of the In-lines of the first swath are attenuated using the FK filter. Then, a Multilayer perceptron neural network model with Hidden Weight Optimization algorithm is trained in a supervised mode using the raw seismic data of these In-lines as an input and the filtered data as an output and the weights of connection are optimized. Data of other swaths are propagated through the neural network machine; the output of the MLP machine is the filtered seismic data from coherent linear noises. Comparison between the calculated output and the filtered data using the FK filter of other swaths shows that the neural machine can be used for automatization of seismic data processing and the linear noise filtering using the FK ...