

Abstract :

In this paper, we combine between the Self-Organizing Map (SOM) neural network model and the Multilayer Perceptron (MLP) for lithofacies classification from well-logs data. Firstly, the self organizing map is trained in an unsupervised learning; the input is the raw well-logs data. The SOM will give a set of classes of lithology as an output. After that the core rocks data are used for the map indexation. The set of lithology classes are generalized for the full depth interval, including depths where core rock analysis doesn't exist. This last will be used as an input to train an MLP model. Obtained results show that the coupled neural network models can give a more precise classification than the SOM or the MLP.