



## **Pars Reservoir Volume Estimator** via Artificial Neural Network



## **Main Features**

- Loading Petrophysical well data, Geophysical Data, Geology Data and Reservoir Geometry data into the software
- · Define boundary and creating reservoir gridding and load all input data into the grids
- Design a MLPBP neural network and preparing input and output data in order to train and test designed neural network
- Estimating petrophysical properties by trained neural network and create petrophysical property models of reservoir
- · Calculating original hydrocarbon in place based on created property models of reservoir







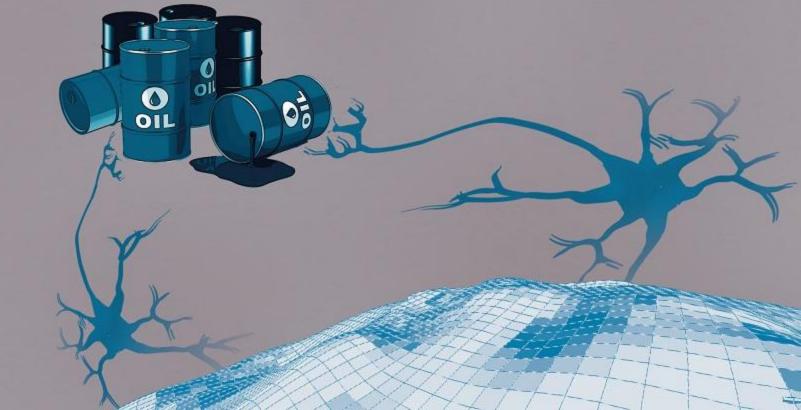








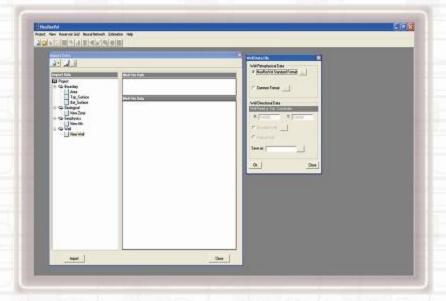
Research Institute of Petroleum Industry (RIPI) West Blvd. Azadi Sport Complex, P.O.Box: 14665-173 ,Tehran , Iran Tel: +98(21) 44739540-60, Fax: +98(21) 44739712 www.ripi.ir



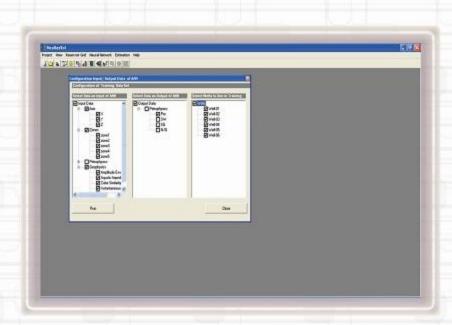




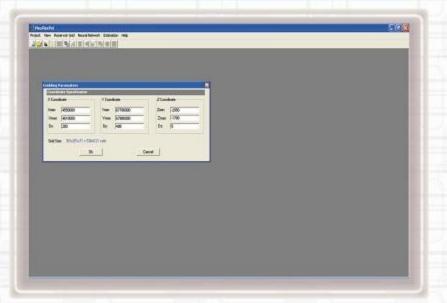
 $PRVEAN^{TM}$ , is a software to Estimate Hydrocarbon Volume in Place via Artificial Neural Network Model. This software can be used to estimate reservoir properties such as; Porosity, water saturation and net to grass ratio. The results may be unloaded as graph and tables.  $PRVEAN^{TM}$  calculates original hydrocarbon in place via volumetric method using the prepared reservoir property models in the last steps.



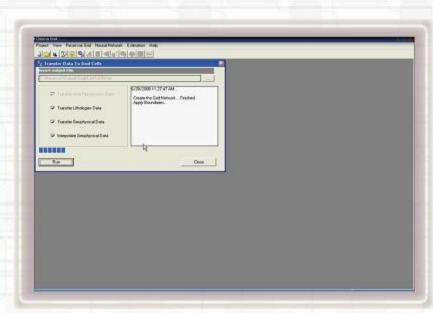
Load all input necessary data into the software



Select input/output data for neural network training



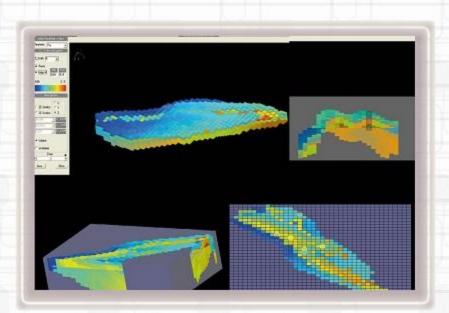
Gridding the reservoir



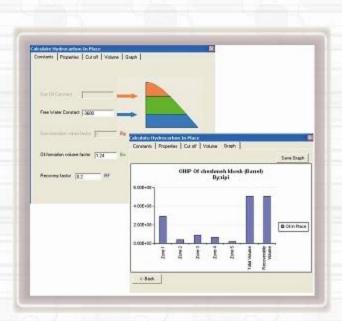
Transfer input data into the grids



Assigned train, validation and test sets in order to train the neural network



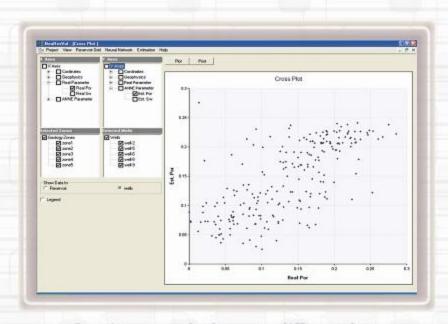
2D and 3D view of crated properties models in software



Calculate Original Hydrocarbon in Place in different zones and all reservoir



Design proper neural network to estimate data



Creating cross plot between different data (input data and/or estimated data)

www.ripi.ir www.ripi.ir