

2nd International Conference and Expo on

Oil & Gas

December 02-03, 2019 | Dubai, UAE

Digital rock technology and artificial intelligence for Reservoir application

Caroline Mignot

Geologist at Ingrain, Brazil

Oil and gas is one of many sectors of industry to adapt to the smart revolution. In a market driven by the pressure of increasing production while keeping costs down, new technologies are rising as solution for time and money reductions and more today with big influence toward age of digital transformation. Currently circumstances are turning oil and gas industry to rush for automation of sampling and reservoir rock analysis process, by applying tools such as big data analysis by Artificial Intelligence, machine learning and digital rock technology. The digitalization of rocks in 3D volume along with computation of petrophysical properties, and cluster of data, is increasing the understanding of formations

in multi-scale resolution, breaking through the challenges of complex pore systems reservoirs. The integration of data from macro to micro scale, can reduce uncertainties in production and reduce time during a reservoir formation evaluation making use of all the trend technologies mentioned above. The current work has the goal to present a new workflow of smart digital technology, developed by Ingrain-Halliburton to optimize evaluation process. The different solutions will be addressed with case studies in reservoir rocks applied by Ingrain.

e: carlomignot@ingrain.br