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Applying Data Analytics And Machine Learning Methods For Recovery Factor Prediction And Uncertainty Modelling

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**Bibliography/References****Status: Completed**

Biography: Reference [1] Ahmed, A.M., Salaheldin, E., Weiqing, C. and Abdulazeez, A. 2019., Estimation of Oil Recovery Factor for Water Drive Sandy Reservoirs through Applications of Artificial Intelligence. *Energies*. 2019 12(19), 3671. <https://doi.org/10.3390/en12193671> [2] Altman, N.S. 1992 An Introduction to Kernel and Nearest Neighbor Nonparametric Regression *The American Statistician* Vol. 46, No. 3 (Aug., 1992), pp. 175-185 (11 pages) Published By: Taylor & Francis, Ltd. <https://doi.org/10.2307/2685209> [3] Arps, J. J., Brons, Folkert, van Everdingen, A. F., Buchwald, R. W. and Smith, A. E. 1967. A Statistical Study of Recovery Efficiency, *Bull. D14, API* (Oct., 1967) [4] Breiman, L. 2001. Random Forests. *Machine Learning* 45, 5-32 (2001). <https://doi.org/10.1023/A:1010933404324> [5] Bureau of Ocean Energy Management (BOEM). 2019. Atlas of Gulf of Mexico Gas and Oil Sands Data. <https://www.data.boem.gov/Main/GandG.aspx> [6] Freund, Y. and Schapire, R.E. 1996 Experiments with a New Boosting Algorithm. *International Conference on Machine Learning*, Bari, 3-6 July 1996, 148-156. [7] Guthrie, R. K. and Greenberger, M. H. 1995. The Use of Multiple Correlation Analysis for Interpreting Petroleum Engineering Data, *Drill. and Prod. Prac., API* [8] Waring, J., Lindvall, C., Umeton, R. 2020, Automated machine learning: Review of the state-of-the-art and opportunities for healthcare, *Artificial Intelligence in Medicine*, Volume 104, 2020, 101822, ISSN 0933-3657 [9] Makhotin, I., Orlov, D., Koroteev, D. et al., 2021., Machine learning for recovery factor estimation of an oil reservoir: A tool for derisking at a hydrocarbon asset level. *SI: Computational Petroleum Engineering*, Vol 8., Issue 2, June 2022, Pages 278 - 290., <https://doi.org/10.1016/j.petlm.2021.11.005> [10] Moore, G. 1965. Cramming More Components onto Integrated Circuits. *Electronics Magazine* Vol. 38, No. 8 (April 19, 1965). [11] Sharma, A., Srinivasan, S., and Lake L.W. 2010. Classification of Oil and Gas Reservoirs Based on Recovery Factor: A Data-Mining Approach. *SPE 130257-MS*. <https://doi.org/10.2118/130257-MS> [12] Silipo, R. 2021. Low Code Data Science Is Not the Same as Automated Machine Learning, <https://www.knime.com/blog/low-code-analytics-platform>. (Accessed May 2022) [13] US Department of Energy. 1995. TORIS (Tertiary Oil Recovery Information System)., <https://edx.netl.doe.gov/dataset/2006-oil-and-gas-industry-software> (Accessed May 2022) [14] Ying, X. 2019. An Overview of Overfitting and its Solutions. *Phys.: Conf. Ser.* 1168 022022.



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