



A Comparative Study of Neural Networks Methods and the African Buffalo Optimization for the Travelling Salesman's Problems

Authors: [Odili, Julius Beneoluchi](#); [Kahar, Mohd Nizam Mohmad](#); [Noraziah, A](#)

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Abstract

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This paper presents a comparative study of some Neural Networks methods and the newly-designed African Buffalo Optimization in solving 12 popular benchmark symmetric Travelling Salesman's Problems. Recently, researchers are exploring solutions to difficult combinatorial problems using the Neural Networks methods. So far, the experiments have been successful. On the other hand, the metaheuristic, African Buffalo Optimization has proven to be quite effective and efficient in providing solutions to some NP-hard and NP-Complete problems, including, of course, the Travelling Salesman's Problems. After a number of experimental evaluations on the chosen dataset, the African Buffalo Optimization was found to be more successful in solving the symmetric Travelling Salesman's Problems under consideration.

Keywords: [African Buffalo Optimization](#); [Neural Networks](#); [Travelling Salesman's Problem](#)

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Affiliations: [Faculty of Computer Systems and Software Engineering, Universiti Malaysia Pahang, Kuantan 26300, Malaysia](#)