Abstract

Palmas in the state of Tocantins is the youngest capital of Brazil and the one with the highest growth rate between 2013 and 2014 according to the Brazilian Institute of Geography and Statistics (IBGE). Presently, more than 85% of individuals live in urban centers and often need to use services related to public policies, including urban public transport. To meet this demand, the city has a company that manages and provides this service. That, however, has regularly been increasing the usage fee. These essential expenditures for the performance of services if optimized could be lower without affecting the availability and effectiveness of urban public transport. Therefore we propose the use of optimization through metaheuristics, which are algorithms that work with a certain level of randomness that throughout the process seek to find a better possible solution. Thus, this work will analyze how this problem behaves in metaheuristics applying in the scenario of Palmas, Tocantins - Brazil and discuss the optimal results expected by the algorithm, as well as identify the optimization ranges in which the metaheuristic will fit at the end of its processing.
References

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Index Terms

Computer Science
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Keywords

Metaheuristic, Optimization, Vehicle Scheduling Problem, bus, Iterated Local Search