“APPLICATION OF CROSS ENTROPY METHOD FOR CAPACITATED VEHICLE ROUTING PROBLEM SOLVING (Case Study: Distribution of Jawa Pos Newspaper Surabaya)”

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ABSTRACT
Capacitated Vehicle Routing problem is one of the closest route determination which is limited by the capacity of transport vehicles. CVRP can be solved by using exact optimization such as integer programming optimization, but the solution will take a very long computation, especially for large problems (if the number of points served by is quite a lot) and using a heuristic approach, such as taboo which is usually used because it can produces smaller total cost than the other methods. Cross Entropy (CE) is a new optimization method developed by two main procedures, generating sample data with a particular distribution and updating the parameters based on best sample distribution to produce a better sample in the next iteration. This research is a continuation research and a physical evidence of how CE can be applied in the real problem. In this study, CE would be applied in real problems of CVRP that occur in the process of newspaper logistics distribution. The expected results are the algorithm, an experiment that could show performance of CE-CVRP, and computer programs for the implementation of the algorithm.

Key words: capacitated vehicle routing problem, cross entropy, tabu search