**Minimising fuel consumption of vehicles as a**

**function of path parameters**

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**Summary :**

This paper deals with minimizing the fuel consumed by the transportation sector and considers the specific case of light duty vehicles. It is proposed that the net fuel consumed by a vehicle when travelling from one place to another is a mainly due to the distance factor. The Dijkstra’s algorithm is applied to the graph obtained. Each node (or city) maintains a routing table which has the cost and next hop values for each other destination node. All that remains at the end is to query for the required path. So the path of minimum fuel consumption (minimum cost) from A to B is obtained as our result.

**Merits:**

* One of the main advantages of Dijkstra’s algorithm is its little complexity which is almost linear.
* It can be used to calculate the shortest path between a single node to all other nodes and a single source node to a single destination node by stopping the algorithm once the shortest distance is achieved for the destination node.

**Demerits:**

* As it heads to the acyclic graph, so can’t achieve the accurate shortest path.
* Also, there is a need to maintain tracking of vertices, have been visited.