MAXIMIZING THE PASSENGERS COMFORT IN MADRAS METROPOLITAN TRANSPORT CORPORATION USING FUZZY PROGRAMMING

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In this paper, our aim is to achieve the goal or more precisely the fuzzy goal viz. To maximize the comfort of the passengers in the metropolitan transport corporation (MTC). We try to analyze the fuzziness inherent in the goals and in the constraints of the system under the following five heads:

- Maximizing the comfort:
- Minimizing the cost:
- Minimizing the travel time:
- Maximizing the revenue and
- Maximizing the frequency of the services

Here, we treat our main goal namely maximizing the comfort of the passengers as the core of the problem. We analyze this problem...
in two ways: First, by using Fuzzy Cognitive Maps and then by using Fuzzy optimization techniques. In the first case expert opinions are obtained by taking the main objective as the passengers comfort. Using Fuzzy Cognitive Maps (FCMs), results are derived from the opinion of the experts and the cumulative FCM is taken as the ultimate opinion. In the second part, we use Fuzzy linear programming to obtain the optimal value bearing in mind, the goal as to maximize the comfort of the passengers subject to certain constraints. Finally, we derive our results by giving weightage to both the methods.