

APPLICATIONS OF FUZZY COGNITIVE MAPS TO DETERMINE THE MAXIMUM UTILITY OF A ROUTE

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In this paper we identify the maximum utilization time period of a route and estimate its overall utility rate by initiating the study of raw data analysis. The effective tools that we are using to analyze the data are Fuzzy cognitive Maps. In this paper we obtain the simple signed FCMs of an experts opinion and form the corresponding connection matrix. For a specific problem we obtain more than one experts opinion. Each of these connection matrices is then combined together to form the cumulative connection matrix. We have developed a Java program to study the model implications. We to illustrate and check the validity of our research model have assessed it in the real data got from the Pallavan transport corporation. Infact we have considered the route 18B plying from Parry's Corner to Kotturpuram. We have given the suggestion from our study. Operation of more number of trips in the time periods 8am, 9 am and 10am, gives beneficial results.

Retirement of time periods {8, 9, 10} gives a better result, say 7-30-8, 8-830. But the half-hour ending 9-30 –10 does not yield beneficial results as it decreases the patronage and the collection. Hence it is necessary to curtail

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the number of trips made in this period. It is necessary to convert some of the normal services into faster services like point-to-point, limited stop and express services. Operation of point to point services in this route at the peak hours of morning and in evening at the hour ending 8-30, 9, 9-30, 17, 18 and 19. Canceling of point-to-point services and expresses at 7, 12, 16, 19-30 and 20

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