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NEW FUZZY RELATIONAL EQUATIONS TO ESTIMATE THE PEAK HOURS OF THE DAY FOR TRANSPORT SYSTEMS

W.B.Vasantha Kandasamy and R. Praseetha

Since any transport or any private concern which plies the buses may not in general have only one peak hour of a day for the peak hours are ones where there is the maximum number of passengers traveling that hour in that route. The passengers can be broadly classified as college students, school students, office going people, vendors etc. Each category will choose their own convenient hour for travel.

For example school going children prefer to travel from 7.00 to 8 am college students from 8 to 9 am. Office going people from 9 to 10 am etc. Thus finding the peak hour cannot be got by solving a single fuzzy relation equation P o Q = R. So we reformulate the fuzzy relation equation P o Q into a set of fuzzy relation equations P_1 o $Q_1 - R_1$, P_2o $Q_2 = R_2$,… P_so $Q_s = R_s$, where $Q = Q_1 \cup Q_2 \cup \ldots \cup Q_s$ and $Q_i \cap Q_j = \phi$ for $i \neq j$.

Hence by our method we obtains preferences. For we need four to five peak hours of a day. We study this problem using the P_i's Q_i's and R_i's. $1 \leq i \leq s$ We have taken the read data from the Pallavan transport Corporation. The

e-mail: vasantha@iitm.ac.in
web: http://mat.iitm.ac.in/~wbv

main advantage of this modified method is that it gives many preferences depending on the type of passengers (school children, college student etc.)

e-mail: vasantha@iitm.ac.in
web: http://mat.iitm.ac.in/~wbv