NEW FUZZY RELATION EQUATIONS TO ESTIMATE PEAK HOURS OF THE DAY

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In this paper we modify the fuzzy relation equation, which we call as the new fuzzy relation equation and apply it to the passenger preference problem. Since the fuzzy relation equation $P \cdot Q = R$ can only give one preference, we may not in reality have such a value, so we in our method reformulate the fuzzy relation equation to give any desired number of preferences by partitioning $Q$ which correspondingly partitions $R$. Thus a single equation is transformed into the desired number of equations by our method.

We test this new fuzzy relation equation in the peak hour problem of the day using the real data obtained from the Pallavan Transportation Corporation. Further we assume that the error function which is yet another deviation from the fuzzy relation equation.

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