

BUS OPERATORS' ECONOMY UNDER DIFFERENT ROUTING AND SCHEDULING: FUZZY APPROACH

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Abstract

The selection of an optimal system from a set of finite number of alternatives, when there is a single or multiple decision makers present have been considered. In the single decision maker case, the optimal decision is the one that satisfies pre-specified multiple objectives. However, these objectives have different weights given in linguistic terms and an aggregation of the preferences of these experts is then performed using fuzzy numbers. This model is applied to transport network available in greater Imphal area and the selection is performed for the optimal system between the bus priority system and non-bus priority system, having varying degrees of importance available in the study area. Economy of bus operators under different routing and scheduling systems is also discussed, analyzed and presented with recommendations.

Key Words : Optimal, Linguistic terms, Fuzzy numbers, Routing and scheduling.

2000 Mathematics Subject Classification: 90C29.