## ABSTRACT

this thesis, fuzzy programming algorithms In are developed for solving the various type of multiobjective transportation problems, namely, two-dimensional. and three-dimensional transportation problems, two and three-dimensional capacitated transportation problems, chance constrained transportation problem. It gives efficient solutions as well as an optimal compromise solution. Additive and interactive fuzzy programming algorithms also have been developed to find the best compromise solution of multiobjective transportation problem where the objectives are not equally important. Fuzzy goal programming method for solving the multiobjective transportation problems is presented. A modified fuzzy programming algorithm for multiobjective transportation problem also has been developed. Fortran programs have been developed for all these algorithms.

Multicriteria decision KEYWORDS: making; transportation problems; fuzzy sets; membership function; goal programming; fuzzy linear programming; fuzzy goal programming; variants; mixed constraints; compromise solution; min-max and max-min capacitated transportation problem; solid operators; problem; interactive algorithms; chance transportation constrained programming; stochastic programming.

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