Abstract

The inverse shortest path problem occurs mostly in reconstruction type of problems where, minimum modifications of the edge weights of a network are made to make a predetermined path to be shortest. In this paper, initially the edge weights are taken as rough variables which, are based on the subjective estimation of the experts. Then these rough weights are approximated by normal uncertain variables and an uncertain programming model has been developed. Further, the uncertain programming model is transformed into a deterministic counterpart which can be solved by any standard method.

References


Index Terms

Computer Science  Applied Mathematics

Keywords

Shortest path, Inverse shortest path, Uncertain variable, Rough variable, Linear programming problem.