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ORIGINAL ARTICLE

# A DECISION PLANNING MODEL FOR TOTAL TIME MINIMIZATION SOLID TRANSPORTATION PROBLEM UNDER UNCERTAINTY

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**Abstract :** A solid Transportation problem considers mainly three constraints dealing with demand at destinations, availability at sources and conveyance capacities. The total time minimization solid transportation problem (TTMSTP) handles the objective to minimize total time involved in transporting the commodities. The TTMSTP is different from ordinary solid transportation problem because of the involvement of some auxiliary variables. The auxiliary variables are used just to identify the active and inactive nodes in the final transportation planning decision model. The concept of uncertain programming is adopted to deal with the vagueness that generally prevails in the data. Expected constraint programming method is used to convert the uncertain model to its equivalent crisp form. A numerical illustration is also given in order to explain the applicability of the presented model.

***Key words :*** Solid transportation, Time minimization, Uncertain theory, Uncertain variable, Inverse uncertain distribution.