Minimising Carbon Emissions in a Multi-Objective Fixed Cost Solid Transportation Problem under Intuitionistic Fuzzy Environment

Divya Sharma[1], Dinesh C. S. Bisht[2], Pankaj Kumar Srivastava[2*]

[1] Amity University Online Department, Amity University, Noida, India
[2] Department of Mathematics, Jaypee Institute of Information Technology, Noida, India

*Corresponding author's e-mail: pankaj.srivastava@mail.jiit.ac.in

ABSTRACT

Two of the biggest challenges to the natural community are air pollution and global warming. One of the most important things the government is doing to safeguard the environment is tracking the amount of carbon emissions coming from automobiles. This is where the idea for the current paper originated. It proposes the methodology to minimize delivery time, transportation costs, and carbon emissions through vehicles. Green supply chain networking is intended to address an intuitionistic fuzzy multi-objective fixed cost solid transportation problem. By treating the parameters as triangular intuitionistic fuzzy numbers and applying the intuitionistic fuzzy programming approach with hyperbolic, linear, and exponential membership and non-membership functions, the Pareto-optimal solution is obtained. This methodology's effectiveness is illustrated with a numerical example.

How to Cite

D. Sharma, D. C. S. Bisht, P. K. Srivastava, "Minimising Carbon Emissions in a Multi-Objective Fixed Cost Solid Transportation Problem under Intuitionistic Fuzzy Environment", *AIJR Abstracts*, pp. 10–10, Feb. 2024.