

Conditions to Obtain Balanced Solution in Distance Function Model

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Abstract

Balanced Solution in Distance Function Models is an issue that has been raised in some recent research in Multi-Objective Programming. The general mathematical foundation for the existence of such solutions has been presented in the past couple of years. In this study we shall elaborate on such conditions in particular, since the imposition of balanced conditions between every pair of objectives results in loss of a degree of freedom, a condition may arise that balancing all objectives may lead to an infeasible solution. Matrix theory is the foundation of the analysis presented in this paper.