Searching the Efficient Frontier for the Coherent Covering Location Problem

Authors : Felipe Azocar Simonet, Luis Acosta Espejo

Abstract : In this article, we will try to find an efficient boundary approximation for the bi-objective location problem with coherent coverage for two levels of hierarchy (CCLP). We present the mathematical formulation of the model used. Supported efficient solutions and unsupported efficient solutions are obtained by solving the bi-objective combinatorial problem through the weights method using a Lagrangean heuristic. Subsequently, the results are validated through the DEA analysis with the GEM index (Global efficiency measurement).