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e-ISSN 3043-6729

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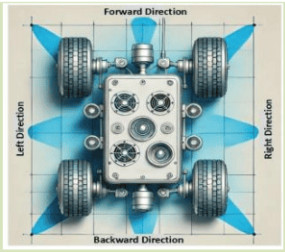
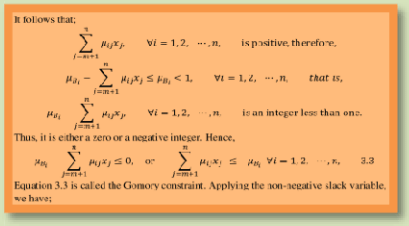
Vol. 4, No. 2 – IN THIS ISSUE – August 2025



Development of An Intelligent Mobile Robot System for Object and Obstacle Detection

Hybrid Optimization with Integer Constraints: Modeling and Solving Problems Using Simplex Techniques



It follows that:

$$\sum_{j=m+1}^{n} \mu_{ij} x_j, \quad \forall i = 1, 2, \cdots, n, \quad \text{is positive, therefore,}$$

$$\mu_{ij} - \sum_{j=m+1}^{n} \mu_{ij} x_j \leq \mu_{ij} < 1, \quad \forall i = 1, 2, \cdots, n, \quad \textit{that is,}$$

$$\mu_{ij} \sum_{j=m+1}^{n} \mu_{ij} x_j, \quad \forall i = 1, 2, \cdots, n, \quad \text{is an integer less than one.}$$

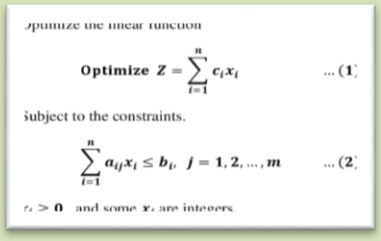
Thus, it is either a zero or a negative integer. Hence,

$$\mu_{ij} \sum_{j=m+1}^{n} \mu_{ij} x_j \leq 0, \quad \text{or} \quad \sum_{j=m+1}^{n} \mu_{ij} x_j \leq \mu_{ij} \; \forall i = 1, 2, \cdots, n, \quad 3.3$$

Equation 3.3 is called the Gomory constraint. Applying the non-negative slack variable, we have;

Effect of Board Independence and Ownership Structure of Listed Non-Financial Firms in Nigeria on Audit Pricing

Characterizing Boundedness and Solution Size in Rational Linear Programming and Polyhedrall Optimization



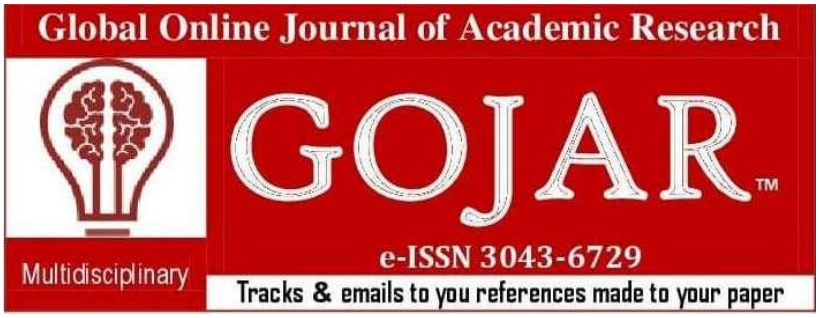
Optimize the linear function

$$\text{Optimize } Z = \sum_{i=1}^{n} c_i x_i \quad \ldots (1)$$

Subject to the constraints.

$$\sum_{i=1}^{n} a_{ij} x_i \leq b_i, \quad j = 1, 2, \ldots, m \quad \ldots (2)$$

$x_i > 0$ and some x_i are integers



Volume 4, Number 2, August 2025

e-ISSN 3043-6729

Published by

The Division of General Studies
Chukwuemeka Odumegwu Ojukwu University
(Formerly Anambra State University),
Anambra State, Nigeria

in association with

Klamidas Communications Ltd
No 42 Ajose Adeogun Street, Utako District, Abuja
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About GOJAR Journal

(e-ISSN 3043-6729)

Global Online Journal of Academic Research (GOJAR) is a multidisciplinary journal published every two months (February, April, June, August, October, and December) by the Division of General Studies, Chukwuemeka Odumegwu Ojukwu University, Anambra State, Nigeria, in association with Klamidas Communications Ltd, a notable online academic publisher and webhost. The publishers' goal is to enhance the capacity of academics in ALL disciplines to publish their quality academic papers and receive occasional email alerts drawing their attention to references made to their papers by other researchers across the globe. Other benefits include: life-time archive of published papers on GOJAR web pages and on Google Scholar, free plagiarism check and paper amendment advisory services.

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