

ANALYSIS OF MULTIPLE LINEAR REGRESSION MODELS USING SYMBOLIC INTERVAL-VALUED VARIABLES

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ABSTRACT

In this paper, a proposed form of dependent regression models are introduced to study symbolic data. The estimation of the proposed linear regression models are based on interval valued data, for which we have lower and upper bounds or center and range values. The least squares method is used to estimate the models. A real example data are used to illustrate the usefulness of the proposed regression models for handling the interval valued data. The estimation results are evaluated using the predicted mean squared errors. The results support the proposed dependent regression models.

KEYWORDS: *Interval-Valued Data, Least Squares Estimation, Linear Regression Analysis, Symbolic Data*

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