

CONCEPT OF DUMMY SPACE IN THE STUDY OF FRACTIONAL FACTORIAL DESIGN WITH MINIMUM ABERRATION

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ABSTRACT

An important application of statistical method to industrial research is in the design and analysis of experiments in connection with the improvement of manufacturing processes. The fractional factorial designs are most economical in this scenario. Therefore, an attempt is made to investigate the effect of increase in the dummy space (value) in fractional factorial design so that more information about the interior of the experimental region can be extract. Some examples are also present in the study to show the variation in the treatment effect and in error degree of freedom with increase in the dummy value.

KEYWORDS: Resolution of Design, ANOVA, Dummy Values, Factor Interaction, Etc