



## **AN EMPIRICAL STUDY ON SECOND ORDER ROTATABLE DESIGNS UNDER INTRA-CLASS CORRELATED STRUCTURE OF ERRORS USING A PAIR OF SYMMETRICAL UNEQUAL BLOCK ARRANGEMENTS WITH TWO UNEQUAL BLOCK SIZES**

**B. Re. Victorbabu\* and M. Ravindrababu**

Department of Statistics, Acharya Nagarjuna University, Guntur - 522 510, India.

E-mail: victorsugnanam@yahoo.co.in

**Abstract :** In this paper, an empirical study on second order rotatable designs under intra-class correlated structure of errors using a pair of symmetrical unequal block arrangements (SUBA) with two unequal block sizes is suggested. Further, the variance function of the estimated response for different values of intra-class correlated coefficient ( $\rho$ ) and distance from centre ( $d$ ) for  $v$  factors  $6 \leq v \leq 12$  are studied empirically.

**Key words :** Response surface designs, Rotatable designs, SUBA with unequal block sizes, Intra-class correlated structure of errors.