Package 'MissingPlotLSD'

July 21, 2025

Type Package

Title Missing Plot in LSD

Version 0.1.0

Description
A system for Analysis of LSD when there is one missing observation. Methods for this process is described in A.M.Gun,M.K.Gupta,B.Dasgupta(2019,ISBN:81-87567-81-3).

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Encoding UTF-8

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NeedsCompilation no

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Contents

Missing.LSD   *Missing Plot in Latin Square Design(LSD)*

Description

This function analyses LSD when there is one missing observation.

Usage

```
Missing.LSD(data, r, c, t)
```

Arguments

`data`	a dataframe which contains values of LSD ,Index No.of row ,Index No.of column,Treatments/Index No.of Treatments in the 1st,2nd,3rd and 4th column respectively. In this dataframe, we will replace the missing value with 0 .
`r`	the index no. of row containing the missing value.
`c`	the index no. of column containing the missing value.
`t`	the index no. of Treatment containing the missing value.

Details

In LSD setup , if there is one missing observation we can use this function to estimate the missing observation along with Sum of Squares for testing the differential effect of the treatments. Here we estimate the missing observation twice by minimizing the SSE of the design.

Value

x.hat : the least sqaure estimate of the missing observation.

SSE.x.hat : Sum of Squares of Error of x.hat.

x.double.hat : the least square estimate of the missing observation under the null hypothesis , H0.

SSE.x.double.hat : Sum of Squares of Error of x.double.hat.

F.stat : Observed value of the Test Statistic.

F.crit.value : Critical value of the Test Statistic.

Author(s)

Arnab Roy , Debarghya Baul.

Examples

```
 d=OrchardSprays
d[8,1]=0
 Missing.LSD(d,8,1,1)
```

Index