

17HS035 Statistical Inference Lab

COURSE DESCRIPTION AND OBJECTIVES

Statistical inference involves using data from a sample to draw conclusions about a wider population. Given a partly specified statistical model, in which at least one parameter is unknown, and some observations for which the model is valid, it is possible to draw inferences about the unknown parameters and hence about the population from which the sample is drawn.

COURSE OUTCOMES

After the completion of the course, the student will be able to achieve the following outcomes:

COs	Outcomes
1	Provide estimates of unknown parameters from sample statistics.
2	Confidence intervals can be used to estimate population parameters such as means or proportions
3	Point estimates are sample statistics used to estimate the exact value of a population parameter
4	Perform testing of hypothesis for different populations
5	Establish a confidence interval for a mean or a proportion

LIST OF EXPERIMENTS

1. Large sample tests for mean(s).
2. Large sample tests for proportion(s).
3. Large sample tests for standard deviation(s).
4. Large sample tests for Fisher's Z- transformation.
5. Small sample tests for Single and Doublet-test.
6. Small sample tests for Paired t-test.
7. F-Test.
8. Chi square test for independence of attributes.
9. Non-parametric testst – run test.
10. Non-parametric tests - median test.
11. Non-parametric tests - sign tests.
12. MS-Excel methods for the above Serial Numbers 1,2,3,4.(any one of above)

TEXT BOOKS

1. BA/BSc II year statistics - statistical methods and inference - Telugu Academy by A.Mohanrao, N.Srinivasa Rao, Dr R.Sudhakar Reddy, Dr T.C. Ravichandra Kumar.