

STATISTICS

The goal of the study is an understanding stochastic quantity thinking in the course of practical data scoring a supporting sensation between individual aspects. Statistics provides base of fundamentals probability, mathematic statistics, main pieces of knowledge its theory and basic statistical methods in estimation arguments and hypothesis testing. Education is executing in computer data environment.

Keywords:

random experiments, random events, probability of random event, axioms of probability, classical, geometrical and statistical definition of probability, conditional probability and independence, random variable, discrete and continuous random variable, distribution function, probability function, probability density function, expected value and variation end other characteristics of random variable, Poisson probability distribution, binomial probability distribution, hypergeometric probability distribution, uniform distribution, normal distribution, exponential distribution, lognormal distribution, Pearson distribution, Student distribution, Fisher-Snedecor distribution, limit theorems, organizing and graphing data, measures of central tendency, measures of position, measures of dispersion, measures of concentration, sample survey, sampling distribution, point and interval estimates of mean, variation and proportion, hypothesis tests, hypothesis tests about mean, variation and proportion, two population hypothesis tests, goodness-of-fit test, normality tests.

References:

- Mann, Prem S. *Introductory Statistics*. Wiley, 2007, ISBN 978-0-471-75530-2, U-2877.
- Curl, James C., Mann, Prem S. *Introductory Statistics, Student Study Guide*. Wiley, 2007, ISBN 978-0-471-75532-6, U-2878.
- Olofsson, Peter *Probability, Statistics, and Stochastic Processes*. Wiley, 2005, ISBN 978-0-471-67969-1
- Johnson, Richard A., Bhattacharyya, Gouri K. *Statistics, Principles and Methods*. Wiley, 2006, ISBN: 978-0-471-65682-1.

Online Textbooks:

WIKIBOOKS <http://en.wikibooks.org/wiki/Statistics>

STATSOFT <http://www.statsoft.com/textbook/Stathome.html>

HYPERSTAT ONLINE STATISTICS TEXTBOOK <http://davidmlane.com/hyperstat/>

PROBABILITY AND STATISTICS EBOOK <http://wiki.stat.ucla.edu/socr/index.php/EBook>

ONLINE STATBOOK <http://onlinestatbook.com/>

INTRODUCTORY STATISTICS: CONCEPTS, MODELS, AND APPLICATIONS
<http://www.psychstat.missouristate.edu/sbk00.htm>