

## NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

NPTEL Video Course - Mathematics - NOC:Introduction to Probability Theory and Statistics

Subject Co-ordinator - Prof. S Dharmaraja

Co-ordinating Institute - IIT - Delhi

Sub-Titles - Available / Unavailable | MP3 Audio Lectures - Available / Unavailable

- Lecture 1 - Random experiment, sample space, axioms of probability, probability space
- Lecture 2 - Random experiment, sample space, axioms of probability, probability space (Continued...)
- Lecture 3 - Random experiment, sample space, axioms of probability, probability space (Continued...)
- Lecture 4 - Conditional probability, independence of events
- Lecture 5 - Multiplication rule, total probability rule, Bayes's theorem
- Lecture 6 - Definition of Random Variable, Cumulative Distribution Function
- Lecture 7 - Definition of Random Variable, Cumulative Distribution Function (Continued...)
- Lecture 8 - Definition of Random Variable, Cumulative Distribution Function (Continued...)
- Lecture 9 - Type of Random Variables, Probability Mass Function, Probability Density Function
- Lecture 10 - Type of Random Variables, Probability Mass Function, Probability Density Function (Continued...)
- Lecture 11 - Distribution of Function of Random Variables
- Lecture 12 - Mean and Variance
- Lecture 13 - Mean and Variance (Continued...)
- Lecture 14 - Higher Order Moments and Moments Inequalities
- Lecture 15 - Higher Order Moments and Moments Inequalities (Continued...)
- Lecture 16 - Generating Functions
- Lecture 17 - Generating Functions (Continued...)
- Lecture 18 - Common Discrete Distributions
- Lecture 19 - Common Discrete Distributions (Continued...)
- Lecture 20 - Common Continuous Distributions
- Lecture 21 - Common Continuous Distributions (Continued...)
- Lecture 22 - Applications of Random Variable
- Lecture 23 - Applications of Random Variable (Continued...)
- Lecture 24 - Random vector and joint distribution
- Lecture 25 - Joint probability mass function
- Lecture 26 - Joint probability density function
- Lecture 27 - Independent random variables
- Lecture 28 - Independent random variables (Continued...)
- Lecture 29 - Functions of several random variables

---

Get DIGIMAT For High-Speed Video Streaming of NPTEL and Educational Video Courses in LAN

<http://www.digimat.in>

## NPTEL Video Lecture Topic List - Created by LinuXpert Systems, Chennai

---

- Lecture 30 - Functions of several random variables (Continued...)
- Lecture 31 - Some important results
- Lecture 32 - Order statistics
- Lecture 33 - Conditional distributions
- Lecture 34 - Random sum
- Lecture 35 - Moments and Covariance
- Lecture 36 - Variance Covariance matrix
- Lecture 37 - Multivariate Normal distribution
- Lecture 38 - Probability generating function and Moment generating function
- Lecture 39 - Correlation coefficient
- Lecture 40 - Conditional Expectation
- Lecture 41 - Conditional Expectation (Continued...)
- Lecture 42 - Mode of Convergence
- Lecture 43 - Mode of Convergence (Continued...)
- Lecture 44 - Law of Large Numbers
- Lecture 45 - Central Limit Theorem
- Lecture 46 - Central Limit Theorem (Continued...)
- Lecture 47 - Descriptive Statistics and Sampling Distributions
- Lecture 48 - Descriptive Statistics and Sampling Distributions (Continued...)
- Lecture 49 - Descriptive Statistics and Sampling Distributions (Continued...)
- Lecture 50 - Point estimation
- Lecture 51 - Methods of Point estimation
- Lecture 52 - Interval Estimation
- Lecture 53 - Testing of Statistical Hypothesis
- Lecture 54 - Nonparametric Statistical Tests
- Lecture 55 - Analysis of Variance
- Lecture 56 - Correlation
- Lecture 57 - Regression
- Lecture 58 - Logistic Regression