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Probability Theory and Statistics

Department of Computer Engineering, Faculty of Engineering,
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1st semester 2019
(July – Nov)

Summary

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Objectives

- Introduction to logic of **probability** and statistics
- Apply **probability** and statistics to solving realistic problems

Topics

- **L1:** Intro to Probability
 - Set Theory / definition / Experiment
- **L2:** Conditional probability
 - Axiom, Independent, Sequential
- **L3:** Counting Method / Independent trials
- **L4:** Discrete Random Variable
 - Intro / PMF

Topics

- **L5: Discrete Random Variable**
 - Discrete Uniform Random Variable
 - Bernoulli Random Variable
 - Geometric Random Variable
 - Binomial Random Variable
 - Pascal Random Variable
 - Poisson Random Variable
- **L6: Derived RV**
 - Variance

Topics

- **L7: Multiple Discrete RVs**
 - Joint PMF / marginal
- **L8: Continuous RV**
 - Uniform
 - Exponential
 - Gaussian
- **L9: Continuous RV**
 - Percentile / mixed RVs
- ~~**L10: Multiple Discrete RVs**~~
 - ~~Joint PDF~~