Topics:

- Linear Algebra: Eigen Analysis

- Probability : Random Variable and Expectation

- Geometric Transformation : 2D, 3D Transformation

- Neighborhood Processing

- Enhancement and Filtering

References:

- Linear Algebra: Linear Algebra and its Applications, Fourth Ed. Gilbert Strang, Chapter - 5

- Probability : Probability and Statistics in Engineering, Fourth Ed. Willian W Hines, john Willey and Sons, Chapter - 3

- R.C. Gonzalez and R.E. Woods, Digital Image Processing, Addison-Wesley, 1992. Chapter: 2.5, 3

- Lecture Slides on Transformation, neighborhood, and Enhancement.