ELE 770  
Statistical Signal Processing  
Spring 2006

Place: E-8  
Time: Wednesday 13:30-16:20

Course Outline:

Week 1-F23- Metric Spaces
Week 2-M1- Norms, Orthogonal Spaces, Projections, Random Vectors
Week 3-M8- 2nd Order Representations, Functions of R.V., Gaussian R.V.
Week 4-M15- Orthogonal Projections, Gram-Schmidt Ort., Random Processes, Gaussian Pr.
Week 5-M22- Markov Proc., Random State Models
Week 6-M29- Analysis of Systems, Spectral Factorization, Rational Modeling, Bayesian Estimation , MAP, MLE.
Week 7-N5- EXAM
Week 8-N12- MSE, Multiple Parameter Est.
Week 9-N19- LMSE, Geometric Interp.
Week10-N26- Wiener Filter
Week11-M3- Levinson Filter
Week12-M10- Kalman Filter
Week13-M17- Kalman Filter (cont.)
Week14-M24 To be decided

References:
Introduction to Statistical Signal Processing Applications, Srinath et.al., Prentice-Hall.