



ECEN 5713 Linear System Fall 1998



- Time:** Monday/Wednesday 1:30-2:45 PM
- Place:** Cordell 128
- Text:** *Linear System Theory and Design*, Chi-Tsong Chen
Oxford, 1984 (ctchen@sbee.sunysb.edu)
- References:** *Modern Control Theory*, 3rd edition, William L. Brogan
Prentice-Hall, 1991 (eewlb@ee.unlv.edu)
Linear Systems, Thomas Kailath
Prentice-Hall, 1980
Linear Systems, Ray DeCarlo
Prentice-Hall, 1989
Linear Systems, Panos Antsaklis and Anthony Michel
McGraw-Hill, 1997 (antsaklis.1@nd.edu)
- Instructor:** Professor Gary G. Yen,
<http://www.okstate.edu/elec-engr/faculty/yen>
744-7743, gyen@master.ceat.okstate.edu
Engineering South 202D
Office Hours: Tuesday/Thursday 2:00-5:00 PM
or by appointment only
- Objectives:** To study the fundamental theory of finite-dimensional linear system with emphasis on the state-space representation and its solution. The topics include
- mathematical basis-
matrix theory, linear algebra, vector space
 - system representation-
input-output operator, geometric approach,
state space representation, transfer function algorithm
 - conversion of alternative representations
 - linear dynamical solution
 - controllability, observability, stability and control
 - linearization and minimal realization
 - state feedback and state estimation
- Grading:**
- | | |
|---|-----|
| 10 Weekly Homework Assignments | 20% |
| 8/26, 9/2, 9/9, 9/16, 10/5,
10/14, 10/21, 10/28, 11/16, 11/23, 11/30 | |
| Midterm Exam 1 (September 23) | 25% |
| Midterm Exam 2 (November 4) | 25% |
| Final Exam (December 11, 5:00-6:50 PM) | 30% |
- Note:** All exams are open notes, but close book.