EECE 4130 Linear Feedback Systems

Concepts of feedback; open loop and closed loop systems. Feedback in electrical and mechanical systems. Mathematical models of systems and linear approximations. Transfer functions of linear systems, block diagrams and signal flow graphs. Sensitivity, control of transient response, disturbance signals. Time domain performance: steady state errors, performance indices. Stability related to s-plane location of the roots of the characteristic equation. Routh criterion. Graphical analysis techniques: root locus and frequency functions and modern control.

i. Instructor: Charles Thompson (charles_thompson at uml.edu)

ii. Course lecture schedule: MW 3:30-4:45 pm

iii. Course website: http://morse.uml.edu

iv. Text: Modern Control Engineering, K. Ogata, Prentice Hall, (3rd Ed.), 1998

v. Reference: Pdfs from website

vi. Grading: The final grade is based on participation/homework assignments(20%), 3 in class exams (50%) and a final exam (30%).