

EE 380

Linear Control Systems

Lecture 14

Professor Jeffrey Schiano
Department of Electrical Engineering

Lecture 14 Topics

- Basic Principles of Feedback
 - Overview
 - Closed-Loop Stability
 - Closed-Loop Transient Response

Advantages Afforded by Feedback

- Achieve a stable closed-loop system when the plant is unstable
- Obtain desired transient response characteristics
- Reduce the sensitivity of the closed-loop system to parameter uncertainty
- Minimize the steady-state error between the desired response and plant output
- Attain a desired response despite the presence of external disturbances