

Advanced Control Systems

Reference Book: Advanced Control Engineering by Ronald Burns

Chapter 1

- **Introduction to compensation**
- **Compensation via root Locus**
- **Compensator Configurations**
- **Commonly Used Compensators**
- **Effect of Adding Poles and Zeros on Root locus**

Chapter 2

- **Lead Compensation**

Chapter 3

- **Lag Compensation**

Chapter 4

- **Lag-Lead Compensation**

Chapter 5

- **Introduction to PID**
- **Modes of Control**
 - **On-Off Control**
 - **Proportional Control**
 - **Proportional + Integral Control**
 - **Proportional + Derivative Control**
 - **Proportional + Integral + Derivative Control**
- **PID Tuning Rules**
 - **Zeigler-Nichol's Tuning Rules**
 - **1st Method**

- **2nd Method**