

# Control Systems Dynamics

A Brief Textbook Presented to the  
Student Body of the University of South Alabama

by

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## Manuscript Changes

1. March 27th, 2024 - Created title page

- I. Dynamics
- II. Solutions to Differential Equations
- III. Laplace Domain
- IV. Transfer Function
- V. Time Response
- VI. Proportional Derivative Integral Control
- VII. Lyapunov Control
- VIII. Sliding Mode Control
- IX. Adaptive Control