

Cubli: Dynamic Control of a Reaction Wheel Inverted Pendulum

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Agenda

Cubli: Dynamic Control
of a Reaction Wheel
Inverted Pendulum

Stability Analysis

Classical Controller
Design

Stability Analysis

Classical Controller Design

Stability Analysis

Root Locus

Cubli: Dynamic Control
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Inverted Pendulum

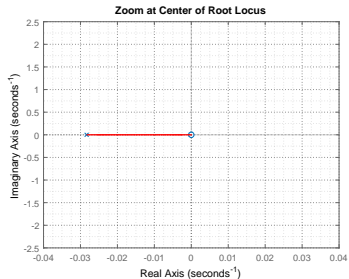
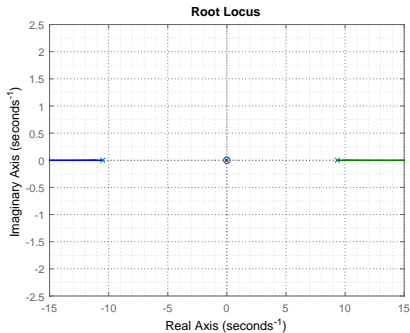
Stability Analysis

Root Locus

Nyquist Plot

Classical Controller
Design

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Stability Analysis

Nyquist Plot

Cubli: Dynamic Control
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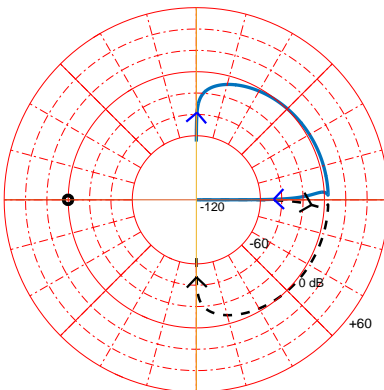
Stability Analysis

Root Locus

Nyquist Plot

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Classical Controller
Design



Classical Controller Design

Cubli: Dynamic Control
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Stability Analysis

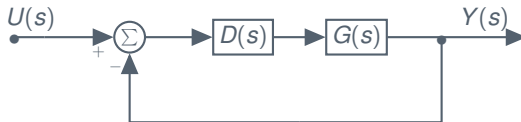
Classical Controller
Design

Root Locus

Root Locus

Final Controller

4



Classical Controller Design

Cubli: Dynamic Control
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Stability Analysis

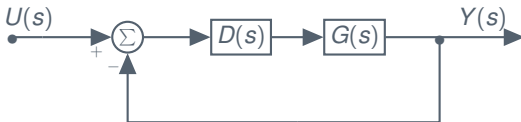
Classical Controller
Design

Root Locus

Root Locus

Final Controller

5



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Root Locus Designed Controller

Final Root Locus

Cubli: Dynamic Control
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Stability Analysis

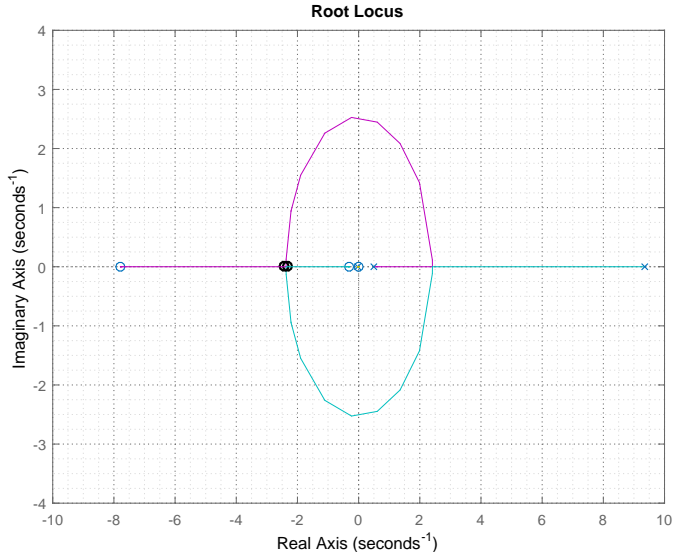
Classical Controller
Design

Root Locus

Root Locus

Final Controller

6



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Root Locus Designed Controller

Cubli: Dynamic Control
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Stability Analysis

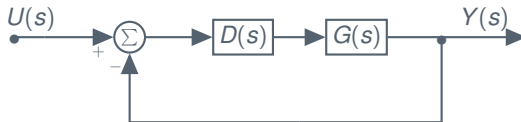
Classical Controller
Design

Root Locus

Root Locus

Final Controller

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8

Root Locus Designed Controller

Cubli: Dynamic Control
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Stability Analysis

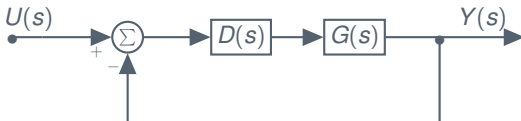
Classical Controller
Design

Root Locus

Root Locus

Final Controller

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