

UCL Mechanical Engineering 2021/2022

MECH0023 Coursework

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Contents

1	Satellite model	3
1.1	Description of model and assumptions	3
1.2	Minimum thickness of beam	3
1.3	Amplitude of displacement for steady-state oscillation of the sensor during rocket function	3
1.4	Limitations of analysis	3
1.5	Manoeuvre	3
1.5.1	Description of obtaining sensor response to the thrust force	3
1.5.2	Dispalcement response	3
2	Linear modelling	3
2.1	Description of non-linearity $y(t)$ & $\theta(t)$	3
2.2	Description of non-linear relationship in a real system	4
3	Linear model performance and stability	4
3.1	Description of actuator switching on	4
3.2	Root locus and effect of proportional control	4
3.3	Negative velocity feedback controller	4
3.3.1	Plot of root locus	4
3.3.2	Areas where damping ratio is higher than 0.6	4

3.3.3	Range of K where performance specifications are achieved	4
4	Controller techniques	4
4.1	Description of closed loop position control system	4
4.2	Specify disturbances	4
5	Inverted pendulum	4
5.1	Identification and description of assumptions and limitations for the model of a rotary inverted pendulum	4
5.2	Moving rocket to final position	4
6	Multi-Degree-of-Freedom systems	4
6.1	Example of a system with multiple degrees-of-freedom	4

List of Figures

1 Satellite model

1.1 Description of model and assumptions

1.2 Minimum thickness of beam

1.3 Amplitude of displacement for steady-state oscillation of the sensor during rocket function

1.4 Limitations of analysis

1.5 Manoeuvre

1.5.1 Description of obtaining sensor response to the thrust force

1.5.2 Displacement response

2 Linear modelling

2.1 Description of non-linearity $y(t)$ & $\theta(t)$

The following function:

$$\frac{dy(t)}{dt} = 150 \cos(\theta(t)) - 47 \quad (2.1)$$

has a non-linear relationship due to $\theta(t)$ being within a cosine function. When we

2.2 Description of non-linear relationship in a real system

3 Linear model performance and stability

3.1 Description of actuator switching on

3.2 Root locus and effect of proportional control

3.3 Negative velocity feedback controller

3.3.1 Plot of root locus

3.3.2 Areas where damping ratio is higher than 0.6

3.3.3 Range of K where performance specifications are achieved

4 Controller techniques

4.1 Description of closed loop position control system

4.2 Specify disturbances

5 Inverted pendulum

5.1 Identification and description of assumptions and limitations for the model of a rotary inverted pendulum

5.2 Moving rocket to final position

6 Multi-Degree-of-Freedom systems

6.1 Example of a system with multiple degrees-of-freedom