EEA004 - Multivariable and Nonlinear Control Systems
Assignment 3

Group 4
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Files: main.m

April 4, 2022

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1 Introduction

This assignment is a continuation of the previous two assignments where an air handler is analyzed. Here we will look closer at two of the nonlinear components of the system, namely the heater and the valve that controls it. Both the heater and the valve have nonlinear, but complementary, characteristics which compensate for each other. However, the valve also exhibits valve authority effect which compromises the compensation between heater and valve. These nonlinearities will be analyzed closer. [Glad and Ljung, 2000, p.123]

Bibliography

Glad, T. and Ljung, L. [2000], *CONTROL THEORY, Multivariable and Nonlinear Methods*, Taylor & Francis.

A Appendix

Here is the Matlab code used to generate the results in the report and the figures.

```
%% Assignement main script
% Designed to execute all other relevant scripts for the assignment
%


clear all;
close all;
clc;

figFolder = 'figures';
mkdir(figFolder);

run('question1.m')
run('question2.m')

%

% END OF FILE
%
```

```
%% Question 1 - Find the transfer function
%


%

% END OF FILE
%
```