My Project

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Chapter 1

Class Index

1.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

System
A structure to represent a system and desired PID tuning method 5

Chapter 2

File Index

2.1 File List

Here is a list of all documented files with brief descriptions:

source/calculations.h 7
source/system.h 7

Chapter 3

Class Documentation

3.1 System Struct Reference

A structure to represent a system and desired PID tuning method.

`#include <system.h>`

Public Attributes

- double **Ku**
- double Tu
- Tuning tuning_method

3.1.1 Detailed Description

A structure to represent a system and desired PID tuning method.

3.1.2 Member Data Documentation

3.1.2.1 Tu

`double System::Tu`

< The gain margin for loop stability

3.1.2.2 tuning_method

`Tuning System::tuning_method`

< The period of the oscillations frequency at the stability limit

The documentation for this struct was generated from the following file:

- source/system.h

Chapter 4

File Documentation

4.1 calculations.h

```
00001 #ifndef CALCULATIONS_H
00002 #define CALCUATIONS_H
00003 #include "system.h"
00004
00010 double calculate_P_parameter(System * current_system);
00011
00017 double calculate_I_parameter(System * current_system);
00018
00024 double calculate_D_parameter(System * current_system);
00025
00026 #endif
```

4.2 system.h

```
00001 #ifndef SYSTEM_H
00002 #define SYSTEM_H
00003
00007 typedef enum {
00008     Classic_Ziegler_Nichols,
00009     Pessen_Integral_Rule
00010 } Tuning;
00011
00015 typedef struct {
00016     double Ku;
00017     double Tu;
00018     Tuning tuning_method;
00019 } System;
00020
00021
00029 System * system_create(double Ku, double Tu, Tuning tuning_method);
00030
00035 void system_delete(System * system_current);
00036
00037 #endif
```

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