

# SILESIAN UNIVERSITY OF TECHNOLOGY FACULTY OF AUTOMATIC CONTROL, ELECTRONICS AND COMPUTER SCIENCE

# PROGRAMME: CONTROL, ELECTRONIC, AND INFORMATION ENGINNERING

#### Master thesis

Title of the Master's Thesis

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Gliwice, November 2021

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### Abstract

The text of the abstract should be copied into a respective field in the APD system. The Abstract with keywords should not exceed one page.

**Keywords:** 2-5 keywords, separated by commas

### Introduction

- introduction into the problem domain
- settling of the problem in the domain
- objective of the thesis
- scope of the thesis
- short description of chapters
- clear description of contribution of the thesis's author

### [Problem analysis]

- problem analysis, problem statement
- state of the art, literature research (all sources in the thesis have to be referenced, eg journal article [2] book [1], conference paper [3], internet source [4])
- description of known solutions, algorithms
- location of the thesis in scientific domain
- The title of this chapter is similar to the title of the thesis.

### [Subject of the thesis]

- solution to the problem proposed by the author of the thesis
- theoretical analysis of proposed solutions
- rationale of applied methods, algorithms, and tools

### Experiments

This chapter presents the experiments. It is a crucial part of the thesis and has to dominate in the thesis. The experiments and their analysis should be done in the way commonly accepted in the scientific community (eg. benchmark datasets, cross validation of elaborated results, reproducibility and replicability of tests etc).

#### 4.1 Methodology

- description of methodology of experiments
- description of experimental framework (description of user interface of research applications move to an appendix)

#### 4.2 Data sets

• description of data sets

#### 4.3 Results

• presentation of results, analysis and wide discussion of elaborated results, conclusions



Figure 4.1: A caption of a figure is **below** it.

Table 4.1: A caption of a table is **above** it.

				method			
				alg. 3	alg. 4	$\gamma = 2$	
ζ	alg. 1	alg. 2	$\alpha = 1.5$	$\alpha = 2$	$\alpha = 3$	$\beta = 0.1$	$\beta = -0.1$
0	8.3250	1.45305	7.5791	14.8517	20.0028	1.16396	1.1365
5	0.6111	2.27126	6.9952	13.8560	18.6064	1.18659	1.1630
10	11.6126	2.69218	6.2520	12.5202	16.8278	1.23180	1.2045
15	0.5665	2.95046	5.7753	11.4588	15.4837	1.25131	1.2614
20	15.8728	3.07225	5.3071	10.3935	13.8738	1.25307	1.2217
25	0.9791	3.19034	5.4575	9.9533	13.0721	1.27104	1.2640
30	2.0228	3.27474	5.7461	9.7164	12.2637	1.33404	1.3209
35	13.4210	3.36086	6.6735	10.0442	12.0270	1.35385	1.3059
40	13.2226	3.36420	7.7248	10.4495	12.0379	1.34919	1.2768
45	12.8445	3.47436	8.5539	10.8552	12.2773	1.42303	1.4362
50	12.9245	3.58228	9.2702	11.2183	12.3990	1.40922	1.3724

### Summary

- synthetic description of performed work
- conclusions
- $\bullet\,$  future development, potential future research
- Has the objective been reached?

### **Bibliography**

- [1] Name Surname and Name Surname. *Title of a book*. Hong Kong: Publisher, 2017. ISBN: 83-204-3229-9-434.
- [2] Name Surname and Name Surname. 'Title of an article in a journal'. In: Journal Title 157.8 (2016), pp. 1092–1113.
- [3] Name Surname, Name Surname and N. Surname. 'Title of a conference article'. In: *Conference title*. 2006, pp. 5346–5349.
- [4] Name Surname, Name Surname and N. Surname. *Title of a web page*. 2021. URL: http://somewhere/on/the/internet.html (visited on 30/09/2021).

# Appendices

### Technical documentation

### List of abbreviations and symbols

DNA deoxyribonucleic acid

MVC model-view-controller

N cardinality of data set

 $\mu$  membership function of a fuzzy set

 $\mathbb{E}$  set of edges of a graph

 $\mathcal{L}$  Laplace transformation

# List of additional files in electronic submission (if applicable)

Additional files uploaded to the system include:

- source code of the application,
- test data,
- etc.

# List of Figures

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