

Bachelor's thesis



Czech
Technical
University
in Prague

F3

Faculty of Electrical Engineering
Department of Cybernetics

Extraction of features from moving garment

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CYBERNETICS AND ROBOTICS, Robotics

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Acknowledgement / Declaration

Foremost, I would like to thank to
Ing. Pavel Krsek, Ph.D. ...

Prohlašuji, že jsem předloženou
práci vypracoval samostatně a že jsem
 uvedl veškeré použité informační zdroje
v souladu s Metodickým pokynem o do-
držování etických principů při přípravě
vysokoškolských závěrečných prací.

V Praze dne 5. 5. 2013

.....

Abstrakt / Abstract

Tento...

Klíčová slova: dynamický model; model oděvu, textile; extrakce příznaků; 3D obraz; silueta.

Překlad titulu: Získání příznaků z obrazu pohybující se látky

This...

Keywords: dynamic model; garment model; feature extraction; 3D image; silhouette.

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Chapter 1

Introduction

text...

1.1 Motivations

This bachelor thesis is part of Clothes Perception and Manipulation project (CloPeMa, 2012-2015) funded by the European Commission [1]. CloPeMa is research project which aims to advance the state of the art in the autonomous perception and manipulation of fabrics, textiles and garments. The CLoPeMa robot will learn to manipulate, perceive and fold a variety of textiles. This bachelor thesis describes the design of method of measurement and extraction of image features.

1.2 Goals

text...

1.3 Description of workplace

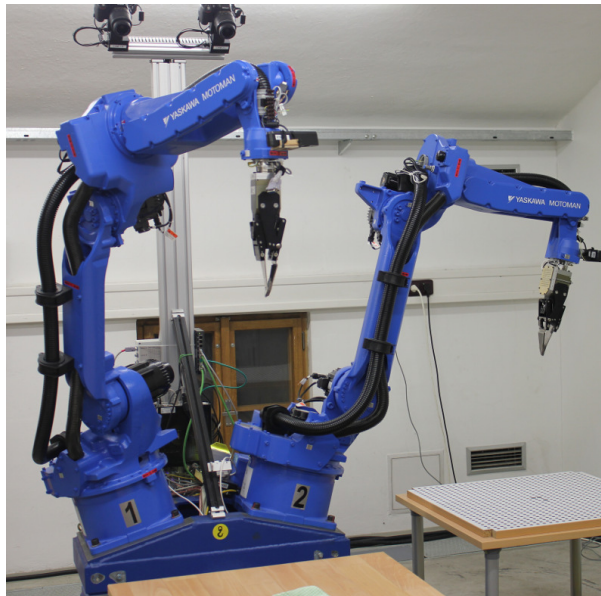


Figure 1.1. Manipulator of CloPeMa project location at CTU

1.3.1 Manipulator

text...

■ 1.3.2 End effector

text...

■ 1.3.3 Motion sensor

text... Asus Xtion...

Chapter 2

Way of getting data

text...

2.1 Realisation

text...

2.2 Positions of Manipulator

2.2.1 Arm with Motion Sensor

text...

2.2.2 Arm with Garment

text...

2.2.3 External axis

text...

2.3 Arm movement

2.3.1 Move1...

text...

2.3.2 Move2...

text...



Chapter 3

Data Saving



3.1 Format of Recorded Data

text...




3.2 Topics

text...




3.3 Format of Names of Recorded Files

text...



Chapter 4

Data Processing




Chapter 5

Results



Chapter 6

Discussion



Chapter 7

Conclusion



References

- [[clopema](#)] [1] CloPeMa. *Clothes Perception and Manipulation*. Visited on 2014-03-20, <http://www.clopema.eu/>.
- [[hlavac](#)] [2] Milan ŠONKA, Václav HLAVÁČ, and Roger BOYLE. *Image processing, analysis, and machine vision*. Thomson, edition 3 edition, 2008. ISBN: 0-495-08252-X.



Appendix **A** Specification



Appendix **B**

Content of included DVD



Appendix C

List of shortcuts

- RGB The additive color model of using Red, Green and Blue colors of lights to create or capture the required color.
- CTU Czech Technical University in Prague.



Appendix **D**

Brief Manual to Get Data Manually



Appendix **E**

Brief Manual for Using in Own Code