

# Report Title

- Subtitle -



**AALBORG UNIVERSITY**

Department of Electronic Systems

Vision, Graphics and Interactive Systems

9<sup>th</sup> Semester project

Fall 2012

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Here you can write something about which tools and software you have used for typesetting the document, running simulations and creating figures. If you do not know what to write, either leave this page blank or have a look at the colophon in some of your books.

**Title:**

Project Title

**Theme:**

Interactive Systems

**Project Period:**

Fall Semester 2012

**Project Group:**

12gr942

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**Abstract:**

Since the last decade, a lot of researches have been carried out about emotion recognition. The number of projects conducted in this field demonstrates the interest and the importance of systems which can recognize human mood.

In this project, an emotion recognition system is developed, using a Microsoft Kinect. This recognition is achieved in 3 steps: Face detection, extraction and classification of facial features, this structure being the usual modus operandi in emotion recognition research.

Face detection is performed using Viola-Jones' algorithm, then Local Binary Patterns (LBP) are used to extract facial features. Finally, Support Vector Machines (SVM) classify these features into six predefined emotions.

The system is implemented to run on a computer using a Kinect and works for one person in front of it. The classifier is trained with the Cohn-Kanade database, which includes enough different faces to obtain a satisfying result.



# Preface

Here is the preface. You should put your signatures at the end of the preface.

Aalborg University, October 5, 2012

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# Chapter 1

## Introduction

Here is the introduction. The next chapter is chapter 2.

### 1.1 Examples

You can also have examples in your document such as in example 1.1.

#### **Example 1.1 (An Example of an Example)**

Here is an example with some math

$$0 = \exp(i\pi) + 1 . \tag{1.1}$$

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### 1.2 How Does Sections, Subsections, and Subsections Look?

Well, like this

#### 1.2.1 This is a Subsection

and this

##### This is a Subsubsection

and this.

**A Paragraph** You can also use paragraph titles which look like this.

**A Subparagraph** Moreover, you can also use subparagraph titles which look like this. They have a small indentation as opposed to the paragraph titles.

Is it possible to add a subsubparagraph?

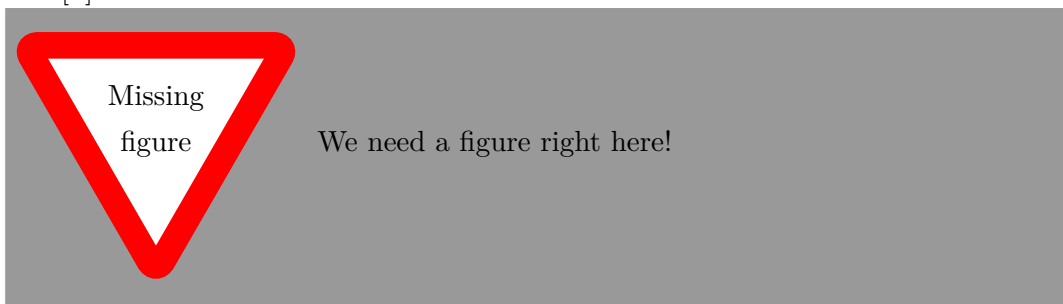
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## Chapter 2

## Chapter 2 name

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I think this word is misspelled





## Chapter 3

# Conclusion

In case you have questions, comments, suggestions or have found a bug, please do not hesitate to contact me. You can find my contact details below.

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## Appendix A

### Appendix A name

Here is the first appendix