Report Template for EQ2330 Image and Video Processing

EQ2330 Image and Video Processing, Project X

Author 1   Author 2

author1@x.com   author2@y.com

November 24, 2015

Summary

Write a short summary of your report. Write approximately 150 words about the problem that you are considering, your solution, obtained results and the the conclusion. For example, this template provides instructions for writing the project reports for the EQ2330 Image Processing course. Read it thoroughly as it is expected that the instructions are followed.

1 Introduction

Give an introduction to the problem considered. The introduction should be written such that it can be understood by an engineer whose area of expertise is not image processing. Motivate the problem by using references to work by other authors [**?**], as well as interesting applications.

Define the mathematical notation used in the report and state the problem using this notation. Make sure that any assumptions you are using are explicit. It is often convenient to be able to refer to equations by numbers. An example equation is the additive noise degradation model for images

$$g(x,y) = f(x,y) + \eta(x,y). \tag{1}$$

2 System Description

Give a description of the system that is implemented for finding a solution to the problem stated in Section **??**. Any derivations that are useful for understanding the solution are presented here. Describe and motivate implemented algorithms.

3 Results

To confirm your findings and the performance of your algorithms, present simulation results in this section. All results should be explained in the text. Plot your results in figures such as Figure **??**, which shows the histogram of (**??**) for a given image $f(x,y)$ and $\eta(x,y) = 0$.

Sometimes images give a better understanding of the obtained results. Figure **??** gives a better description of $f(x,y)$ than Figure **??** for certain purposes. However, make sure that you have a good motivation for the inclusion of any graphics. They should all aid the reader in understanding your report.
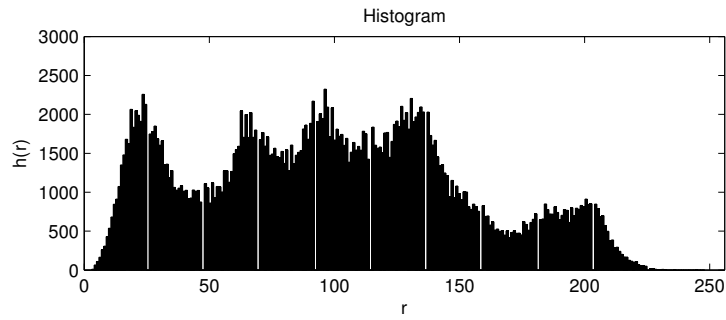
Figure 1: Make sure to name the axis. In this figure the gray level is denoted r and $h(r)$ is the number of pixels with gray level r.
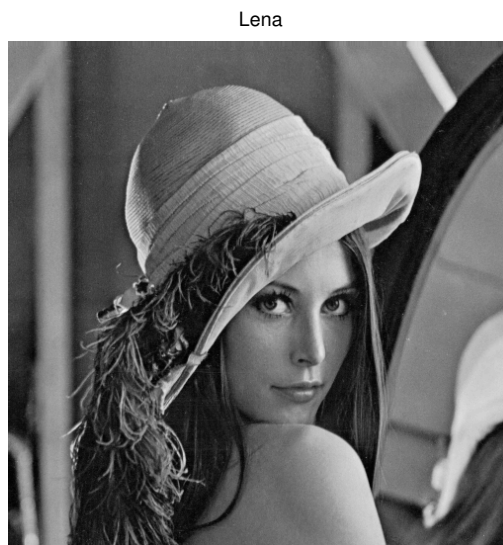

Figure 2: Each figure should be well explained in the caption, as well as in the text.

4 Conclusions

Present your conclusions in this section. Remember that conclusions are not just another summary. Your report, excluding references and appendix, should fit in 4-5 A4-pages. Therefore, make sure to write concisely and to the point, describing everything of importance. Writing a report takes time, which is why you should start early. If you have any questions about the assignment ask the teaching assistants in time. Name your report pdf-file in the format `20YYpX_author1_author2.pdf`, where `author1` and `author2` are surnames of the authors.

Appendix

Who Did What

Describe in detail how the project work was divided between the authors. This template was written by Ermin Kozica in LaTeX 2$_\varepsilon$. A good introduction to LaTeX 2$_\varepsilon$ is available at [**?**]. You can write your report in other programs as well.

MatLab code

Include the well documented MatLab code that you have used.

```
function h = histogram(f)
% A function that calculates the histogram of matrix f.

N = numel(f); % The number of elements in f
h = ...
```

References

[1] Rafael C. Gonzalez and Richard E. Woods, *Digital Image Processing*, Prentice Hall, 2nd ed., 2002

[2] Tobias Oetiker et al., *The Not So Short Introduction to LaTeX 2$_\varepsilon$*, Available: http://tobi.oetiker.ch/lshort/lshort.pdf, Last accessed: March 17, 2009