THE HAGUE UNIVERSITY OF APPLIED SCIENCES

IMAGE ACQUISITION AND PROCESSING LAB

Final Report

Author/Student: Luca van Straaten (18073611)

Instructor: F. Theinert

October 5, 2022



Contents

| 1 | Introduction | 1 |
|---|---|---|
| 2 | Assignment 1 Setup | 2 |
| 3 | Assignment 2 Object in front of Dark Background | 2 |
| 4 | Assignment 3 Moving Object | 2 |
| 5 | Assignment 4 Salt and Pepper Noise | 2 |
| 6 | Assignment 5 Convolution | 2 |
| 7 | Assignment 6 Demospicing Filter | 9 |

1 Introduction

we work from the lab assignment [1]. They state:

The students will work in groups of two and have to attend all lab-sessions in order to pass the course. During the lab-sessions, the students are asked to take images and write software to process them. Students are asked to bring their own laptops with an USB3.0 port. All assignments can be worked out on school-computers with the cameras supplied, but working independently on your own laptop is recommended. Students will receive a virtual machine (Virtual Box) with all software preinstalled on Ubuntu 22.04 LTS.

This report describes the exercises and how they were solved by the students.

- 2 Assignment 1 Setup
- 3 Assignment 2 Object in front of Dark Background
- 4 Assignment 3 Moving Object
- 5 Assignment 4 Salt and Pepper Noise
- 6 Assignment 5 Convolution
- 7 Assignment 6 Demosaicing Filter

References

Theinert, F. (n.d.). Reader image acquisition and processing. The Hague University of Applied Sciences.