



# Image Processing & Computer Vision 1

## Introduction

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# How it Works

- Theoretical exercises
  - Important for *understanding* the concepts and algorithms (and for the exam!)
  - Exercises and solutions are made available on the script server: *Elektrotechnik/Fachbereich/Digital\_Image\_Processing\_and\_Computer\_Vision\_1/IPCV1/labs*
- Practical exercises
  - Languages: Python or MATLAB  
(Spyder and MATLAB are installed on the lab computers)
  - And if you have time, try to do the additional tasks

# Formalities

- You have to attend 10 of the 14 lab sessions
  - The lab takes place in room 6.004
  - If you do not feel well, stay at home and contact me. You can send me your solutions to the exercises. If they are correct, the corresponding session is considered attended.
- Don't hesitate to contact me if you have questions:
  - [martin.weisenhorn@ost.ch](mailto:martin.weisenhorn@ost.ch)

# Relevant Books

- Digital Image Processing 4th/global Edition
  - Rafael C. Gonzalez, Richard E. Woods
  - Not needed for the labs, but recommended for the exam
  - The theoretical exercises are based on the book

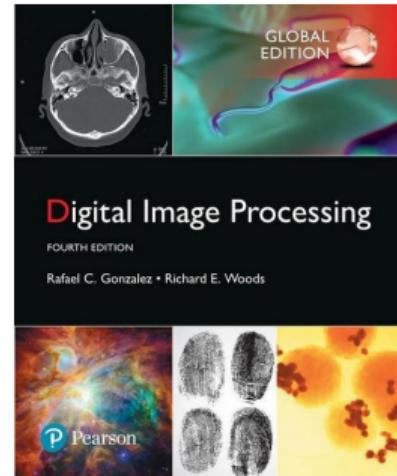


Figure 1: Book cover

# Lab 1

## Theoretical Exercises

- Digital image fundamentals
- Adjacency
- Distance measures

## Practical Exercises

- Introduction to matplotlib/OpenCV (Python) or MATLAB's Image Processing Toolbox
- Introduction to the lab's camera setup