1

NHẬP MÔN THỊ GIÁC MÁY TÍNH
INTRODUCTION TO COMPUTER VISION

Introduction

- Lecturer:
 - Name: Lê Thanh Hải
 - Department: Mechatronics
 - Email: lthai@hcmut.edu.vn or hai493@gmail.com
- Grading Policies:
 - Class participant, class test and homework: 20%
 - Project: 40%
 - Final exam: 40%

Contents

Chapter 1: Introduction to Computer Vision

Chapter 2: Projective Geometry and Camera Models

Chapter 3: Camera Calibration

Chapter 4: Light and Color Capture

Chapter 5: Binary Image Analysis

Chapter 6: Linear Filters

Chapter 7: Edge Detection

Chapter 8: Fitting

References

- 1. Computer Vision: Algorithms and Applications, by Richard Szeliski, Springer, 2010. (http://szeliski.org/Book/)
- 2. Computer Vision: A Modern Approach, by D.A. Forsyth and J. Ponce, Prentice Hall, 2002.
- 3. *Computer Vision*, by Linda G. Shapiro and George C. Stockman, Prentice Hall, 2001.
- 4. *Digital Image Processing*, by Rafael Gonzalez and Richards Woods, Prentice Hall, 2007.
- 5. Fundamentals of Digital Image Processing, by Anil K. Jain, Prentice Hall, 1989.
- 6. *Multiple View Geometry in Computer Vision*, 2nd Edition, by R. Hartley, and A. Zisserman, Cambridge University Press, 2004.

Department of Mechatronics