School: Efi Arazi School of Computer Science M.Sc.

Computer Vision

Lecturer:
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Teaching Assistant:
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Course No.: Course Type : Weekly Hours : Credit:
217  Elective  3  3

Course Requirements : Group Code : Language:
Final Exam  221021701  Hebrew

Prerequisites

Prerequisite:
52 - Calculus I
53 - Calculus II
54 - Linear Algebra I
55 - Linear Algebra II
56 - Discrete Mathematics
59 - Data Structures
69 - Logic And Set Theory
77 - Algorithms
417 - Introduction To Computer Science
Course Description

The course covers the fundamentals of computer vision, including both theoretical and practical aspects. Students will learn about the challenges and solutions in classic computer vision tasks, as well as modern applications. The course aims to provide a comprehensive understanding of computer vision, including basic methods for solving computer vision problems.

Course Goals

The student will learn:

- Basic understanding of the challenges in solving computer vision tasks
- Basic methods for solving classic computer vision tasks
- Computer vision applications
- Theoretical as well as practical aspects of computer vision
- Basic python

Grading

The course grade is composed of:

- 50% homework and exams
- 50% project

Note: The final exam will be held at the course end.

Learning Outcomes

The student will learn:

- Basic understanding of the challenges in solving computer vision tasks
- Basic methods for solving classic computer vision tasks
- Computer vision applications
- Theoretical as well as practical aspects of computer vision
- Basic python

Lecturer Office Hours

TBA
Reading List

The course does not follow a textbook. However, the following books cover most of the material that will be studied in this course:

- Computer Vision: A Modern Approach, by Forsyth D.A. and Ponce, J.
- Multiple View Geometry in Computer Vision, by Zisserman, A. and Hartley R
- Computer Vision: Algorithms and Applications, by Richard Szeliski,

In addition, journal and conference papers will be listed during the course.