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 aims to introduce students to the fundamental concepts of computer vision and its applications. Students will learn about basic methods for solving classic computer vision tasks and the theoretical as well as practical aspects of computer vision. Emphasis will be placed on practical aspects, with the use of basic python.

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

50% of the grade is based on a final exam and homework assignments. The remaining 50% is based on presentations, projects, and class participation.

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 text book. 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.