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

Computer Vision

Lecturer:

Prof. Yael Moses   yael@idc.ac.il

Teaching Assistant:

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Course No.:   Course Type :   Weekly Hours :   Credit:
217   Elective   3   3

Course Requirements :   Group Code :
Final Exam   221021701

Language:

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

A course focusing on computer vision methods and their applications. The course aims to provide a comprehensive understanding of the field, covering both theoretical and practical aspects. Students will learn how to solve computer vision tasks using basic methods and tools. The course will also cover the use of Python for implementing computer vision algorithms.

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 grading will be based on the following:

- 50% of the final grade will be based on the final exam and assignments.
- 50% of the final grade will be based on the midterm exam.

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

Consultation hours will be held on a regular basis to discuss course material and answer any questions.
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.