COURSE DETAIL

APPLIED COMPUTER VISION
Country Germany
Host Institution Technical University Berlin
Program(s) Technical University Berlin
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Computer Science
UCEAP Course Number 130
UCEAP Course Suffix A
UCEAP Official Title APPLIED COMPUTER VISION
UCEAP Transcript Title APPLIED COMP VISION
UCEAP Quarter Units 5.50
UCEAP Semester Units

3.70

Course Description

The course's goal is to enable participants to acquire and process digital images in technical applications in a context-aware manner. The course introduces the basics of digital image processing, the acquisition of images in computing environments, and the extraction of semantic contents from the images. The goal of the course is the exemplary coverage of an interdisciplinary breadth, not necessarily an in-depth treatment of a specific domain. Fundamentals like sensor calibration, feature detection (e.g. edge extraction), matching and classification are taught. Integrated practical exercises cover operating a camera from a single-board computer and using a smartphone camera in a computer vision setting. Furthermore, exemplary machine learning approaches are used for “understanding” the images acquired previously. Software to be developed make use of the OpenCV Python library.

Language(s) of Instruction
English

Host Institution Course Number
0433 L 171

Host Institution Course Title
APPLIED COMPUTER VISION

Host Institution Course Details
https://moseskonto.tu-berlin.de/moses/modultransfersystem/bolognamodule/beschre...

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department

Institut für Technische Informatik und Mikroelektronik

Course Last Reviewed
2024-2025

Print