COURSE DETAIL

INTRODUCTION TO CAMERA GEOMETRY
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 135
UCEAP Course Suffix
UCEAP Official Title INTRODUCTION TO CAMERA GEOMETRY
UCEAP Transcript Title CAMERA GEOMETRY
UCEAP Quarter Units 4.50
UCEAP Semester Units 3.00

Course Description

The course is an introduction to the geometry of the image formation process and how visual data is represented and manipulated in a computer. Students learn projective geometry, which helps model the perspective projection, and digital image processing. Topics include how to model the perspective operation that happens when a picture is taken (projective geometry, image formation process), how pictures (visual data) are represented and processed in a computer (digital image processing), how to find out the internal geometric parameters of a camera (camera calibration), and what applications camera technology has in robotics (stereopsis, visual odometry, AR/VR, etc.).

Language(s) of Instruction
English

Host Institution Course Number
41060

Host Institution Course Title
INTRODUCTION TO CAMERA GEOMETRY

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

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