

Course Description – Winter 2024/25

Title	Computer Vision
Faculty	Electrical Engineering
Professor	Prof. Dr. Maria Schweigel
ECTS	5
Level	Bachelor
Requirements	Computer/Laptop
Add. Information	https://www.hs-schmalkalden.de/hochschule/fakultaeten/fakultaetelektrotechnik/internationales-f-et/international-students.html
Content	The module provides an introduction to the fundamentals of image processing. Students are given an introductory systematic overview of the physical-biological basics, the functioning of available image processing hardware, software and interfaces, and an analogy of the image as a signal. Subsequently, the basic image processing methods are presented mathematically and algorithmically (in Open CV). Finally, practical applications of image processing as well as multi-vision approaches are explained in detail. These topics give the students a comprehensive basic knowledge of image processing. In practical exercises with OpenCV, this basic knowledge is deepened.