

## Course Description – Summer 2025

<b>Title</b>	Robotic Vision
<b>Faculty</b>	Electrical Engineering
<b>Professor</b>	Prof. Dr. Maria Schweigel
<b>ECTS</b>	5
<b>Level</b>	Master
<b>Requirements</b>	Master student in electrical engineering or mechatronics engineering
<b>Add. Information</b>	<a href="https://www.hs-schmalkalden.de/hochschule/fakultaeten/fakultaet-elektrotechnik/internationales-f-et/international-students.html">https://www.hs-schmalkalden.de/hochschule/fakultaeten/fakultaet-elektrotechnik/internationales-f-et/international-students.html</a>
<b>Content</b>	<p>The students get to know the theoretical foundations of computer vision under consideration of issues of mobile robotics.</p> <p>Especially they learn about physics of light and color, means how a picture is generated, transforming coordinate systems, formation of an image, feature extraction and vision based control. All theoretical knowledge will be demonstrated on examples by using Vision Module of Matlab. Students will apply theoretical knowledge by solving exercises.</p>