

Course title	<i>Student Project - Virtual Reality Apps(VR)</i>
Course code	<i>VR</i>
Module coordinator	<i>Miriam Heinrich</i>
Lecturer	<i>Prof. Dr.-Ing. Fahmi Bellalouna</i>
Level of course	<i>Bachelor / Master</i>
Recommended prerequisites	<ul style="list-style-type: none"> <li>• <i>Programming skills (e.g. C#, C++).</i></li> <li>• <i>Interest in interdisciplinary topics (gaming, Virtual Reality, computer science, programming, CAD, mechanical engineering)</i></li> </ul>
Type of course	<i>Student Project</i>
Weekly lecture hours (SWS)	<i>6</i>
ECTS credits	<i>6</i>
Workload	<i>In total 180h as project work</i>
Assessment (grading; pass/fail)	<i>graded</i>
Regular cycle	<i>Each semester</i>
Language of instruction	<i>English</i>
Contents:	<i>Virtual Reality (VR) technology has become more important in recent years, especially in gaming and entertainment. This development is mainly due to the high performance of VR hardware and software and the steadily decreasing prices of VR systems. Despite their high potential for optimizing product development processes, VR technology is rarely used within industrial enterprises. Within several student projects, VR applications will be developed and implemented to demonstrate the potential and benefits of VR technology for industrial applications.</i>
Learning outcome (competencies):	<i>Within several student projects, VR apps for different technical systems will be implemented. The implementation of the VR apps comprises i.a. following tasks: → Rendering of the 3D graphics data for technical systems in the VR environment. → implementation of interaction functions to handle and to interact with the 3D graphics data of the technical systems.</i>
Teaching methods	<input type="checkbox"/> Lecture <input checked="" type="checkbox"/> Group work <input type="checkbox"/> Exercises <input type="checkbox"/> Simulation <input type="checkbox"/> Video feedback <input type="checkbox"/> Others:
Assessment methods	<i>Project implementation and submit of a project report.</i>
Recommended reading	
Additional information	
Recognition of credits	