

Course	Seminar in Pervasive Computing: Gaze-Based Interaction in Industry, 2019S
Language	The seminar will be held in English. All presentation slides and written papers have to be in English.
Introduction / Topics	The Introduction (presentation of goals; fixation of further dates throughout the semester) will be held at the first date. Deciding to join at the last minute? No problem - Remaining free spots will be allocated during the introduction.
Content	The goal of this year's seminar in Pervasive Computing is the investigation of the potential of eye tracking in industrial quality control tasks. An implicit and effortless creation of quality control protocols - just by looking at things - can be of huge benefit for quality assurance tasks and promises to reduce error rates, completion times and cognitive loads. By using a mobile eye tracker, it should be assessed if and how long certain critical regions of workpieces have been visually attended. For that a Pupil Labs eye tracker and a prototypical "industrial workpiece" in form of an automobile part will be handed out to the students.



Deliverables	<p>The seminar participants (in groups or alone, depending on the number of participants) will have to accomplish the following deliverables:</p> <ul style="list-style-type: none"> • Engage different papers on the topic (Related Work-Study) • Intermediary Presentation (Goals, Proceedings, Discussion) • Hardware/Design Prototype • Design of a small user experiment (Data collection; what to inspect? why? expected outcome?) • Realize analysis and interpretation (Choose methods) • Interpretation of results • Final Presentation (Results; Problems; Achieved goals; Discussion) • Written Summary (Paper)
Prerequisites	For a sufficient understanding of the discussed topics we recommend, apart from a completed bachelor program in computer science, the successful completion of the lectures "Embedded and Pervasive Systems", "Pervasive Computing: Systems and Environments" and "Pervasive Computing: Design and Development".