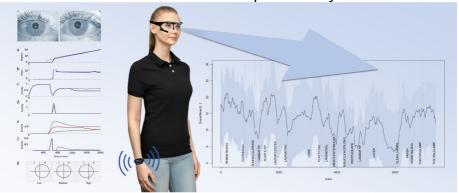
Course:
Topic:
Туре:
Lecturer:
Hours/week:
Audience:
Language:
Introduction:
Content:

2

Seminar in Pervasive Computing Gaze-Based Interaction SE Ferscha

Students of computer science / AI, master programme Seminar, presentations and written papers all in English Goals, schedule and practicalities shared at the first meeting This seminar will investigate the potential of eye tracking for selecting objects in the immediate surroundings and the design of appropriate vibro-tactile feedback delivered by a smart watch. Being able to engage with objects at a distance - just by looking at them - could enable effortless human-machine interaction and could provide various benefits. With the help of a mobile eye tracker, the user should be able to point/select 5 different objects using gaze (e.g., vacuum cleaner, lamp, thermostat, oven, air conditioner). For that purpose, Pupil Labs eye trackers and Motorola smart watches will be provided by the institute.



Deliverables:	The seminar participants (in groups or alone, depending on the number of participants) will have to accomplish the following deliverables:
	<ul> <li>Study relevant papers on the topic (Related Work)</li> </ul>
	Initial report presentation (Concepts, Progress, Goals)
	Hardware/Design Prototype
	<ul> <li>Small-scale user experiment (Data collection)</li> </ul>
	<ul> <li>Data analysis and interpretation (Methods selection)</li> </ul>
	Discussion of results
	<ul> <li>Final Presentation (Results; Problems; Achieved goals; Discussion)</li> </ul>
	Discussion)
	<ul> <li>Written Summary (Scientific paper)</li> </ul>
Schodulo	The seminar will be held in blocks (at fixed dates not

Schedule: The seminar will be held in blocks (at fixed dates, not periodically). The dates following the introduction will be discussed at the first meeting. Participation is mandatory.
 Prerequisites: For a sufficient understanding of the discussed topics we recommend, apart from a completed bachelor program, the successful completion of the lectures "Embedded and Pervasive Systems", and Pervasive Computing: "Systems & Environments" and "Design & Development"
 Literature: Further literature (reference publications) will be provided to participants in the supplement section of this lecture.