

Einladung zum ZeSOB Kolloquium

Am Montag, **08. Mai 2017**, um 16h c.t. spricht Frau

Prof. Dr.-Ing. Tanja Schultz

(University of Bremen, Cognitive Systems Lab)

über

Biosignal-based Cognitive Systems and Applications

Biosignals are autonomous signals produced by humans measured in physical quantities. In the context of human-computer interaction, human modalities like speech, gestures or motion, i.e. muscle and brain activity at large, can be captured by non-invasive body-worn sensors. The processing and interpretation of the resulting biosignals offer an inside perspective on human physical and mental activities, intentions, and needs and thus complement the traditional way of observing human interaction from the outside.

As recent years have seen major advances in sensor and device technologies, including new monitoring methods, miniaturized sensors, as well as integrated, mobile and ubiquitous devices, the time is right to use of the full range of biosignals for cognitive systems. In my talk I will present ongoing research at the Cognitive Systems Lab (CSL), where we explore human-centered cognitive systems to improve human-machine interaction as well as machine-mediated human communication. Several applications will be described such as Silent Speech Interfaces that rely on articulatory muscle movement captured by electromyography to recognize and synthesize silently produced speech, as well as brain-computer interfaces that use brain activity captured by electrocorticography to recognize speech and electroencephalography to determine users' mental states, such as task activity, cognitive workload and attention. We hope that our research will lead to a new generation of cognitive systems, which are completely aware of the users' needs and provide an intuitive, efficient, robust, and adaptive input mechanism to interaction and communication.

Der Vortrag findet statt am Montag, 08. Mai 2017, um 16 Uhr c.t. im Mehrzweckhochhaus (MZH) der Universität Bremen, Bibliothekstraße, 28359 Bremen, in Raum MZH 6190 (Ebene 6).

Alle Interessierten sind herzlich willkommen!

(Einladungsvorschlag von Prof. Dr. Thorsten Dickhaus)