

Kolloquium

Biomedizinische Technik und verwandte Gebiete

Wintersemester 2019/2020

Donnerstag, 16.01.2020, 17:00 – 18:30 Uhr

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(Moderation: Univ.-Prof. Dr.-Ing. Dr. med. Steffen Leonhardt, Lehrstuhl für Medizinische Informationstechnik (MedIT) im Helmholtz-Institut für Biomedizinische Technik der RWTH Aachen)

„Validation of Electro-Dermal Activity Emotion Signals with Source Localized EEG Responses“

Abstract:

Emotions are the fundamental intellectual capacity of human, mainly characterized by perception, attention, and behavior. The regulation of emotion involves a complex interplay of cortical and subcortical regions of the brain. Several models such as discrete, dimensional, appraisal, and dynamical models are used to describe the emotions. These are generally analyzed using facial expression, speech recognition and physiological signals. The utilization of physiological signals such as EEG, ECG and EMG provide unbiased and relevant information for effective recognition of emotion. In recent years, EDA signals are used for automated emotion recognition. However, variation in recording sites, inter and intra-subject variability, low frequency and complexity makes the analysis of this signal challenging. This talk is aimed to discuss the issues and challenges associated with validating EDA responses with EEG which includes localization of sub-anatomic region in the brain and the relevance of frequency bands in these regions corresponding to the emotional stimuli.

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