Record Nr. UNINA9910366655403321 Autore Schmidt Elisabeth Titolo Effects of Thermal Stimulation during Passive Driver Fatigue / / by Elisabeth Schmidt Pubbl/distr/stampa Wiesbaden:,: Springer Fachmedien Wiesbaden:,: Imprint: Springer Vieweg, , 2020 **ISBN** 3-658-28158-8 Edizione [1st ed. 2020.] Descrizione fisica 1 online resource (XXVII, 230 p. 48 illus.) Collana Gestaltung hybrider Mensch-Maschine-Systeme/Designing Hybrid Societies, , 2661-8230 Disciplina 005.437 4.019 User interfaces (Computer systems) Soggetti Automotive engineering Transportation engineering Traffic engineering User Interfaces and Human Computer Interaction Automotive Engineering Transportation Technology and Traffic Engineering Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Fatigue Induction in Simulated Driving -- Effect of Thermal Stimuli on Nota di contenuto Passive Fatigue -- Detection of Fatigue based on Physiological Measurements -- Driver Vitalization through Fatigue-Based Climate Control. Sommario/riassunto Elisabeth Schmidt investigates the effect of thermal stimulation during passive driver fatigue in a series of driving simulator experiments. Thermal stimulation of the upper body resulted in significantly decreased subjective fatigue ratings as well as an increase in pupil diameter and skin conductance. The effects of different stimulus temperatures, durations, lower leg cooling and repetitive cooling were also examined. The studies show that thermal stimulation of the upper body causes physiological and subjective effects, which can be associated with a short-term sympathetic activation, whereas lower leg

cooling does not cause physiological activation. Contents Fatigue

Induction in Simulated Driving Effect of Thermal Stimuli on Passive Fatigue Detection of Fatigue based on Physiological Measurements Driver Vitalization through Fatigue-Based Climate Control Target Groups Researchers in the fields of human factors, ergonomics, user interaction Automotive human-machine-interaction specialists The Author Elisabeth Schmidt completed her doctoral dissertation under the supervision of Prof. Dr. Angelika C. Bullinger-Hoffmann at Chemnitz University of Technology, Germany.