Context

SomnoAlert is a new, peer-reviewed science and engineering conference focused on the fundamentals, design, implementation, test, validation, and use of systems for characterizing the level of somnolence of a subject carrying out a task, and for issuing timely alerts for preventing accidents.

The SomnoAlert conference is the scientific component of the overall SomnoSafe symposium.

SomnoSafe covers all aspects of "somnolence and safety" from theory to practice, in the fields of science, engineering, technology, medicine, biology, psychology, ergonomics, risks, statistics, policy, certification, products, uses, insurance, and business. All components of SomnoSafe are seamlessly integrated allowing all participants to interact closely, whether scientists, engineers, physicians, manufacturers, OEMs, policy makers, end-users, or others.

Motivation

Somnolence is a major cause of accidents in many situations, such as for driving and the supervision of industrial plants. On the road, somnolence is responsible for 20 to 30% of all accidents, and, in France, for 90,000 accidents per year. Furthermore, 6 to 11% of people naturally suffer from severe, chronic excessive daylight sleepiness (EDS)!! Somnolence is undoubtedly a major issue of public health and safety.

Scope

SomnoAlert covers all aspects of somnolence (and, thus, of drowsiness, sleepiness, fatigue, and alertness) related to the safety of an operator carrying out a task such as driving, with an emphasis on the real-time (i.e. instantaneous) detection of the onset of somnolence, and on the related issuance of alerts (rather than on the offline, preventive planning of work schedules).

SomnoAlert considers all approaches for the real-time monitoring of somnolence, including the sensing of the physical and physiological characteristics of the subject, his/her behavior, and that of the instrument he/she is operating, e.g. a car, the related processing of signals and images, the conversion into levels of somnolence, and the issuance of appropriate alerts.

Topics

• Biological, physiological, medical aspects of somnolence
• Sensing modalities (EEG, EOG, EMG, OptoOculoGraphy, PhotoOculoGraphy,...)
• Parameters indicative of somnolence
• Signal and image processing and analysis
• Conversion of parameters into somnolence levels
• Existing laboratory and commercial monitoring systems
• Test, evaluation, validation, certification of monitoring systems
• Cognitive science, ergonomics, risk assessment and management
• Applications (driving, flying, surveillance,...).

Information

All necessary information for submitting papers to SomnoAlert 2014 and for registering for SomnoSafe is found at www.SomnoSafe.com.

Key events and dates

Issuance of “Call for papers” 17 June 2013
Deadline for submitting papers 16 September 2013
Notification of acceptance/rejection 15 November 2013
Last day of early-bird registration 13 January 2014
Deadline for submitting camera-ready papers 20 January 2014