Wearable neurotechnology for inferring the driver's attention for assistive driving for individuals with attentional disorders

Data description

Describe the data that will be gathered in the course of the research project, including whether the data should be preserved for long-term access.

EEG data will be recorded on participants driving real cars as well as those immersed in simulated driving environments. The data will prove valuable for future analyses, and will be preserved and shared publicly post-publication.

Data format and metadata standards

Describe the standards and machine-readable formats that will be used in the course of the research project.

The data format will be MATLAB .mat files. The data will be cleaned of artifacts and noise-removed for easy analyses.

Policies for access and sharing

Discuss the access policies that will apply to the data, so as to protect against the disclosure of identities, confidential business information, national security information, etc. and whether public use files may be generated from the data.

EEG data does not reveal identity. No MRI scans of participants will be shared, which can reveal identity.

Policies for re-use, redistribution, derivatives

Discuss the policies for re-use, re-distribution and derivative projects.

The data will prove invaluable to the entire CMU community, and transportation research community. As such, it will be shared with anyone who seeks access post-publication. Derivative projects are expected that will use this data to understand brain function as well as electrode placement for EEG.

Plans for archiving and preservation

Outline the plans for archiving and preservation, specifying where research data will be deposited, and specify that data will be deposited at the time of initial publication of any related peer-reviewed journal article.

Initially, the data will be archived at local hard drives and cloud storage platforms for reliability. Eventually, it will be published on online platforms such as IEEE DataPort.