VIRGINIA COMMONWEALTH UNIVERSITY

"DETECTION OF ATTENTIVENESS BY WAY OF SIGNAL PROCESSING EEG" VCU #13-093

Applications

- Measures attentiveness during training videos and lectures
- Diagnostic measure for learning disabilities, ADHD and autism

Advantages

- Measures attentiveness of participants during short training videos
- Non-invasive
- 85% or better accuracy

Inventors

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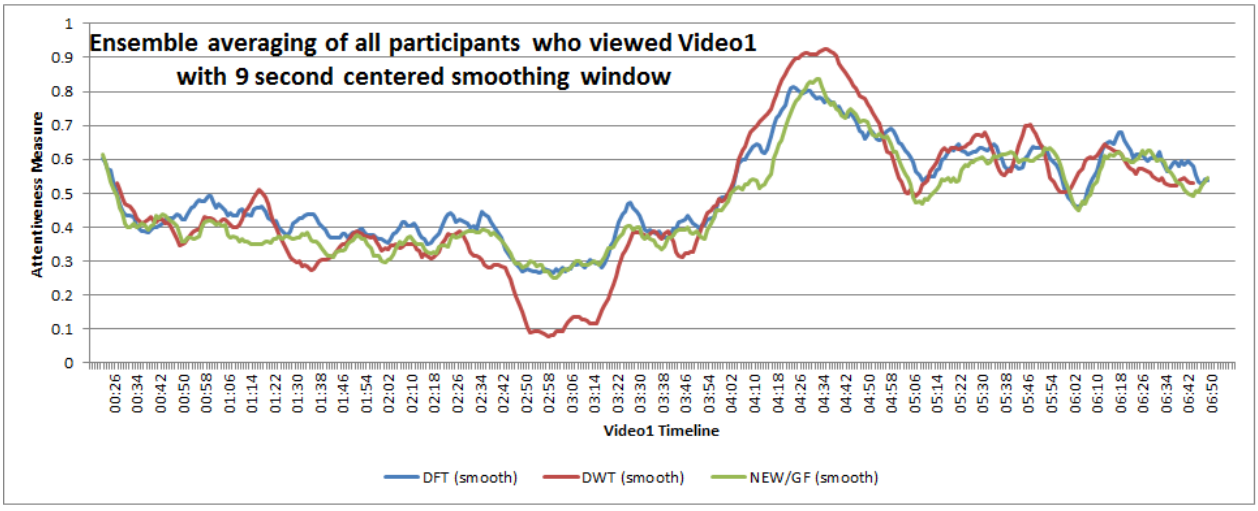
Market Need

The ability to pay careful attention is integral in each individual's daily living and maximizing this effort can greatly improve one's quality of life. Research has shown that paying careful attention allows individuals to form deep connections not only with other individuals but with specific tasks. While distance learning and computer based training become more popular by reaching out to greater masses and decreasing the cost of individualized training, there exists a need to measure effectiveness of the training technique and perhaps allow specific tailoring to increase attentiveness. Therefore, there is a need to better understand which training techniques elicit maximum attentiveness in order to retain and execute particular tasks in daily living.

Technology Summary

This technology, which is composed of optimized algorithms that enable accurate readings of attentiveness, is the first of its kind to measure attentiveness of participants during short training videos. The figure below displays the output of the system from multiple participants who viewed a short training video. Based on the graphical representation we are able to determine which time segments of the video elicited peak attentiveness. This is thought to not only be applicable in determining effectiveness of training videos but expand to diagnostics for learning disabilities, ADHD and autism.



Technology Status

This technology has been prototyped and tested in a small cohort.
Patent Pending: U.S. and Foreign rights available.

This technology is available for licensing to industry for further development and commercialization.