University of Central Florida

Technology Available for Licensing

tt.research.ucf.edu

Synchronize Physiological and Performance Variable Data

The development of smaller, less intrusive, and more portable physiological sensing technologies has supported increased research efforts that rely on subjective measurements of a user's state. While these technologies become more prevalent, inconsistencies between devices—including different sampling frequencies, timing resolution, and local time stamps—can complicate the process of correlating physiological data and other measurements like task performance.

Developed by UCF researchers, this invention incorporates abstract physiological data from a virtual or live task event with timescale data for real-time and post-data collection synchronization.

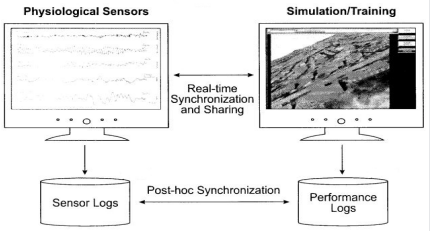
Technical Details

The new technology provides a method for synchronization and distribution of multiple physiological and performance measures over specified time periods within live, virtual, and constructive environments, with minimal modification to existing third-party applications or environments. Physiological data from a subject and non-physiological data from external events or environment to which the subject is exposed can be synchronized and correlated through the use of a global time reference frame and designated time points in the separate systems.

Physiological devices for gathering raw physiological data from a human or animal subject include those for tracking eye movement, facial position, electro dermal response (EDR), heart rate variability (HRV), and electro encephalography (EEG). Examples of external events or environments include a live situation, a training event, a simulation, or a game.

UCF Inventor

Daniel Barber, Ph.D.



Benefits

- Synchronization of data

Applications

- The technology can be incorporated into software and adapted to run on any computing system

Tech Fields

Software

Keywords

physiological data, software, data synchronization, time stamp, data correlation

Patent Application Pub. No

US 2014/0012509 A1

If you or your company are interested in this opportunity, Contact:

John Miner | 407.882.1136 | John.Miner@ucf.edu | Tech ID# 32481

UCF Office of Technology Transfer | 12201 Research Parkway, Suite 501, Orlando, FL 32826