

Optical Detection Of Neurological Alterations

Track Code: 2019-VLAC-68416

Categories:

- Biomedical Engineering
- Medical/Health

Keywords:

- Neurological Alterations
- Optical Detection

Researchers at Purdue University have developed a new non-invasive technology to detect neurological alterations caused by disease and/or injury. The current Pupillary light reflex (PLR) tests are conducted by pen light exam, which tends to be heuristic, empirical, qualitative often leading to misdiagnosis due to human error. Even though there are some quantitative pupillometry devices that are available in the market, it is often associated with high startup cost and a work accurately under a narrow range of conditions. This PLR technology developed at Purdue uses elegant mathematical modeling to detect neurological alterations. It is compatible with any imaging platform and eye color. It delivers automated, accurate, objective measurements in real-time.

Advantages:

- Portable
- Easy to use
- Accurate
- Automated

Potential Applications:

- Monitor neurological alterations due to disease and/or injury

People:

- Vlachos, Pavlos P (Project leader)
- Meyers, Brett Albert

Intellectual Property:

Application Date: November 26, 2019

Type: Utility Patent

Country of Filing: United States

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Contact OTC:

Purdue Office of Technology Commercialization

The Convergence Center

101 Foundry Drive, Suite 2500

West Lafayette, IN 47906

Phone: (765) 588-3475

Fax: (765) 463-3486

Email: otcip@prf.org