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Oculog: Remote Eye Tracking

Oculog is an innovative new remote eye tracking tool that tracks pupil and corneal reflection in a controlled lighting environment to estimate gaze position relative to a stationary or mobile camera. It can potentially be used to track eye movements of many people across a variety of real-world environments. Data can then be auto-aggregated to yield population gaze metrics.

Competitive advantage

- Can track eye movements in real-time from potentially multiple people
- Estimates each individual's gaze pattern relative to either stationary or mobile visual targets
- No point-of-regard calibration required per observer
- No need to wear head-gear that will interfere with observer performance
- Cost-effective solution for a variety of eye-tracking applications

Impact

- Improved biologically-based interfaces for a range of defence applications
- Enhanced security

Successful applications

- Patents with Canon Information Systems Research Australia
- Multiple competitive research grants

Capabilities and facilities

- Eye-tracking hardware and custom software
- 3D animation and modelling for real-time rendering and simulation
- Virtual reality hardware and customisable software for rapid deployment in a variety of research and development scenarios
- Psychophysical resource suites for acquiring perceptual data to assess human perceptual performance in tailored applications
- Computational modelling methods to predict perception/performance

More Information

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