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(54) **EYE GAZE TRACKING SYSTEM AND METHOD**

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 See application file for complete search history.

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(57) **ABSTRACT**

An eye gaze tracking system is disclosed. The system includes a gaze data acquisition system including a plurality of light sources and a plurality of image sensors. The plurality of light sources are arranged to emit light to a head of the user, and the plurality of image sensors are configured to receive the light. In an embodiment, the system further includes a gaze tracking module including an ocular feature extraction module, a point of regard (POR) calculation module and a POR averaging module. The ocular feature extraction module is configured to process the gaze data and to extract ocular features, and is configured to determine a confidence value associated with an accuracy of the parameters. The POR calculation module is configured to determine a POR from the ocular features. The POR averaging module is configured to determine an average POR.

17 Claims, 5 Drawing Sheets

