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(71)**Name of Applicant :**
1)GD Goenka University
Address of Applicant :Sohna Gurugram Road, Sohna, Haryana, India, 122103 Gurugram ---------- ----------
Name of Applicant : NA
Address of Applicant : NA
(72)**Name of Inventor :**
1)Dr. KN Rakesh
Address of Applicant :Department of Optometry, School of Medical and Allied sciences, GD Goenka University Gurugram ---------- ----------
2)Krishna Kumar Gupta
Address of Applicant :Department of Optometry, School of Medical and Allied sciences, GD Goenka University Gurugram ---------- ----------

(57) Abstract :
The present invention relates to spectacle-mounted device (100) for detecting intermittent deviation of eyeand examining ocular surface health. The device is integrated into a sleek and comfortable spectacle frame, housing essential components such as a camera system positioned in front of each eye lens and a miniature vibrator discreetly embedded in one temple. An advanced image processor, coupled with an infrared camera(104), analyzes acquired images to detect abnormalities related to meibomian glands, ocular surface health, heat changes, and blinking rate. Additionally, a gaze detection system (102) ensures the accurate detection of normal eye alignment and activates the miniature vibrator (106) to alert users of abnormal deviations. Furthermore, a mobile-based app interface (110) enables seamless user interaction and data output, facilitating continuous monitoring of various eye-related parameters including eye deviation, ocular surface health, blinking rate, inflammation, and meibomian gland condition.

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