

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202611031554 A

(19) INDIA

(22) Date of filing of Application :16/03/2026

(43) Publication Date : 08/05/2026

(54) Title of the invention : DEVICE FOR ANALYZING SCLERAL CONTACT LENS FITTING

(51) International classification	:A61B 3/14, A61B 3/00, A61B 3/12, A61B 3/10, A61F 9/008	(71)Name of Applicant : <b>1)Chitkara University</b> Address of Applicant :Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Rajpura Punjab India
(31) Priority Document No	:NA	(72)Name of Inventor : <b>1)Ansari Affan Ashfaque Ahmed</b>
(32) Priority Date	:NA	<b>2)Shobha Gupta</b>
(33) Name of priority country	:NA	<b>3)Saitirumaladev Kalicheti</b>
(86) International Application No	:	<b>4)Dr. Astha Gupta</b>
Filing Date	:01/01/1900	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

A device for analyzing scleral contact lens fitting, comprising a handheld housing 101 in front of a patient's eye, a silicone-based ambient light isolation hood 102 to block external light and maintain a fixed imaging distance, a cobalt blue light source 103a to emit light for excitation of fluorescein dye beneath a scleral contact lens, a white light source 103b to assist in general ocular alignment and positioning prior to activation of the analysis mode, a dual-lens stereoscopic camera module 104 to simultaneously capture images of the scleral lens region from two spatially separated angles to generate depth perception data, an embedded computing means 105 to preprocess captured images using a digital optical filtering protocol to enhance contrast between fluorescein fluorescence and background regions, and a display interface 106 to present diagnostic results and corresponding scleral lens parameter adjustment recommendations to the patient.

No. of Pages : 21 No. of Claims : 9