(12) PATENT APPLICATION PUBLICATION

(21) Application No.202311057603 A

(19) INDIA

(22) Date of filing of Application :28/08/2023

(43) Publication Date : 29/09/2023

## (54) Title of the invention : DEVICE AND METHOD FOR DETECTING RIGID GAS PERMEABLE CONTACT LENS FITTING

(51) International classification	:A61B0003135000, A61B0003000000, G02C0007040000, A61B0003107000, A61B0003140000	<ul> <li>(71)Name of Applicant :</li> <li>1)Chitkara University</li> <li>Address of Applicant :Chitkara University, Chandigarh-Patiala</li> </ul>
(86) International	:NA :NA	National Highway, Village Jhansla, Rajpura, Punjab - 140401,
Application No		India. Patiala
Filing Date		2)Chitkara Innovation Incubator Foundation
(87) International	: NA	Name of Applicant : NA
Publication No		Address of Applicant : NA
(61) Patent of Addition		(72)Name of Inventor :
to Application Number		1)GUPTA, Krishna Kumar
Filing Date	.INA	Address of Applicant :Department of Optometry, Chitkara School
(62) Divisional to	:NA :NA	of Health Sciences, Chitkara University, Chandigarh-Patiala
Application Number		National Highway, Village Jhansla, Rajpura, Punjab - 140401,
Filing Date		India. Patiala

## (57) Abstract :

The present invention discloses a novel system and method for detecting the fitting parameters of rigid gas permeable (RGP) contact lenses, enabling precise and efficient lens fitting in optometric practices. The system comprises a device (10) attachable to a slit lamp biomicroscope through a slit lamp adapter (12), featuring a sensor module (14) with corneal topography sensors, tear film stability sensors, and lens centration sensors. The captured quantitative data is processed by a data processing unit (16) within the device (10) using advanced algorithms, generating real-time analysis and personalized recommendations. The system further integrates a display unit (18) to present comprehensive and user-friendly data, empowering eye care practitioners in their decision-making process. With its ergonomic design, affordability, and reduced chair time for patients, the system enhances the accuracy and convenience of RGP contact lens fitting.

No. of Pages : 25 No. of Claims : 10