

(54) Title of the invention : A PORTABLE DEVICE FOR DETERMINING OCULAR FEATURES

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(33) Name of priority country	:NA	Marg, Chandigarh- 160009, India. Chandigarh India
(86) International Application No	:NA	(72)Name of Inventor :
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## (57) Abstract :

The present disclosure relates to a portable device for determining ocular features non-invasively. The device includes a light source to illuminate a target positioned along an optical axis; an optical sensor to capture one or more optical images of an eye of a user illuminated by the light source, wherein the optical sensor is positioned at a predefined distance from the eye and aligned along the optical axis; a transceiver adapted to generate an ultrasound signal such that said generated ultrasound signal is received at the transceiver after reflection from the eye; and a control unit configured to process the captured one or more images, and extract values of one or more attributes from the processed one or more images, wherein the extracted value of the one or more attributes are compared with a pre-defined value of the one or more attributes stored in a first database, and wherein based on comparison, one or more features associated with the eye are determined non-invasively, and wherein based on the received ultrasound signal, the control unit is configured to determine a first set of features from the one or more features.



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