(19) INDIA

(22) Date of filing of Application :08/10/2022

(43) Publication Date: 06/01/2023

## (54) Title of the invention: DEVICE TO DETECT BLINK RATE

:H02J0007000000, A45C0011000000,

G16H0050200000, B01L0003000000, G06F0003041000

(86) International :NA Application No :NA Filing Date

(51) International

classification

(87) International : NA Publication No. (61) Patent of Addition :NA to Application Number :NA Filing Date

(62) Divisional to :NA **Application Number** :NA

Filing Date

# (71)Name of Applicant:

## 1)Chitkara University

Address of Applicant: Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India, Patiala -----

#### 2) Chitkara Innovation Incubator Foundation

Name of Applicant: NA Address of Applicant: NA (72) Name of Inventor:

### 1)SINGH, Sachitanand

Address of Applicant: Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala -----

#### 2)GUPTA, Krishna Kumar

Address of Applicant: Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala -----

#### 3)RANJAN, Jai Prabhat

Address of Applicant : Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala -----

## 4) GUPTA, Sheifali

Address of Applicant: Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala -----

## 5) GUPTA, Rupesh

Address of Applicant: Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala -----

## (57) Abstract:

The disclosed embodiments illustrate a portable device 100 to detect blink rate of a person during use of a digital device 102 such as laptop, phone, etc. The device 100 includes a housing 104 that is detachably coupled with the digital device by a clip 106 and a video of a predefined area is captured using an image capture device 108 that is analysed to determine blink frequency and blink duration that is displayed to a display device 100. Additionally, an alert unit 112 activates to remind the person to blink their eyes when the blink rate is detected low. This reduces the risk of infection or dry eye disease while using digital devices for an extended period of time. Furthermore, the device 100 recognizes the person using the device and prepares a separate report including blink information of each person using the device regularly.

No. of Pages: 26 No. of Claims: 10