(19) INDIA

(22) Date of filing of Application:15/12/2021

(43) Publication Date: 14/01/2022

Bareilly-243006 U.P., India. ----

(54) Title of the invention: EARLY DETECTION OF DEPRESSION USING AI AND MOBILE DEVICE.

(51) International classification

:A61B0005160000, G06Q00100000000, A61B0005000000, G16H0010200000,

G01V0009000000

(86) International Application No

:NA :NA

Filing Date (87) International

Publication No

: NA

(61) Patent of Addition:NA to Application Number:NA

Filing Date

(62) Divisional to :NA Application Number :NA Filing Date

3)Mr. Pankaj (Assistant Professor) 4)Mrs. Pooja Yadav (Assistant Professor)

> Name of Applicant: NA Address of Applicant: NA

(71)Name of Applicant:

(72)Name of Inventor:

1)Dr. Anil Kumar Bisht (Assistant Professor)

1)Dr. Anil Kumar Bisht (Assistant Professor)

2)Dr. Akhtar Husain (Associate Professor)

Address of Applicant : CS&IT, MJP Rohilkhand University,

Address of Applicant : CS&IT, MJP Rohilkhand University.

Bareilly-243006 U.P., India. ----

2)Dr. Akhtar Husain (Associate Professor) Address of Applicant : CS & IT Dept., FET, MAHTMA

JYOTIBA PHULE ROHILKHAND UNIVERSITY, BAREILLY,

3)Mr. Pankaj (Assistant Professor)

Address of Applicant : CS&IT Dept., MJP Rohilkhand University, Bareilly, U.P. 243006, India. -

4)Mrs. Pooja Yadav (Assistant Professor)

Address of Applicant : CS&IT Dept. MJP Rohilkhand University. Bareilly, 243006, UP, India. -

(57) Abstract:

Our invention Early Detection of Depression Using AI and Mobile Device Significant burdensome problem is a perplexing and normal emotional well-being issue that is heterogeneous and shifts between people. Prescient measures have recently been utilized to anticipate melancholy in people. Given the intricacy, heterogeneity of significant burdensome problem in people, and the shortage of named objective burdensome social information, prescient measures have shown restricted appropriateness in distinguishing the beginning stage of melancholy. We present a created framework that gathers comparative cell phone sensor information like in past prescient examination studies. We examine that abnormality discovery and entropy investigation techniques are most appropriate for growing new measurements for the early identification of the beginning and movement of significant burdensome issue. Cell phone informational indexes and self-announced 8-thing Patient Health Questionnaire (PHQ-8) sorrow evaluations were gathered from 629 members in an exploratory longitudinal review over a normal of 22.1 days (SD 17.90; territory 8-86). We evaluated 22 routineness, entropy, and SD social markers from the cell phone information. We investigated the connection between the social elements and discouragement utilizing relationship and bivariate direct blended models (LMMs). We utilized 5 managed AI (ML) calculations with Hyperparameters enhancement, settled cross-approval, and imbalanced information taking care of to foresee gloom. At last, with the change significance technique, we distinguished persuasive social markers in foreseeing sorrow.

No. of Pages: 14 No. of Claims: 7