

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :30/12/2024

(21) Application No.202411104617 A

(43) Publication Date : 10/01/2025

(54) Title of the invention : IOT-BASED SOCIO-MENTAL HEALTH MONITORING DEVICE

<div>(51) International classification :A61B0005000000, G06Q0050000000, G16H0050200000, G16H0010200000, G06F0003010000</div> <div>(86) International Application No :NA</div> <div>Filing Date :NA</div> <div>(87) International Publication No : NA</div> <div>(61) Patent of Addition to :NA</div> <div>Application Number :NA</div> <div>Filing Date :NA</div> <div>(62) Divisional to Application :NA</div> <div>Number :NA</div> <div>Filing Date :NA</div>	<div>(71)Name of Applicant :</div> <div>1)Chitkara University</div> <div>Address of Applicant :Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Rajpura -----</div> <div>2)Chitkara Innovation Incubator Foundation</div> <div>Name of Applicant : NA</div> <div>Address of Applicant : NA</div> <div>(72)Name of Inventor :</div> <div>1)Varun Malik</div> <div>Address of Applicant :Associate Professor, Department of Computer Applications, Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Rajpura -----</div> <div>2)Prerna Ajmani</div> <div>Address of Applicant :Assistant Professor, Vivekananda Institute of Professional Studies-TC, AU- Block (Outer Ring Road) Pitampura, New Delhi – 110034, Delhi, India. New Delhi -----</div>
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(57) Abstract :

An IoT-based socio-mental health monitoring device, comprising a wearable wristband 101 developed to monitor a user's social interactions and mental well-being, an AI-based imaging unit 102 to capture images of the user's surroundings during daily activities, a GPS module for real-time location tracking, and a microphone 103 to record the user's voice during social engagements, the device evaluates the user's outgoing time and interaction quality, storing data in a connected database via IoT, an analyzer module compares this data with the user's past records and peer benchmarks, to assess changes in social behavior and mental health, a personalized baseline is generated to track the user's socio-mental well-being over time, the communication module enables wireless notifications to medical practitioners for remote monitoring, a touch enabled display on the wristband 101 allows the user to view their social and mental health data for providing insights into their ongoing behavior and interactions.

No. of Pages : 27 No. of Claims : 4