

पेटेंट कार्यालय
शासकीय जर्नल

**OFFICIAL JOURNAL
OF
THE PATENT OFFICE**

निर्गमन सं. 20/2025
ISSUE NO. 20/2025

शुक्रवार
FRIDAY

दिनांक: 16/05/2025
DATE: 16/05/2025

पेटेंट कार्यालय का एक प्रकाशन
PUBLICATION OF THE PATENT OFFICE

INTRODUCTION

In view of the recent amendment made in the Patents Act, 1970 by the Patents (Amendment) Act, 2005 effective from 01st January 2005, the Official Journal of The Patent Office is required to be published under the Statute. This Journal is being published on weekly basis on every Friday covering the various proceedings on Patents as required according to the provision of Section 145 of the Patents Act 1970. All the enquiries on this Official Journal and other information as required by the public should be addressed to the Controller General of Patents, Designs & Trade Marks. Suggestions and comments are requested from all quarters so that the content can be enriched.

(PROF. (DR) UNNAT P. PANDIT)
CONTROLLER GENERAL OF PATENTS, DESIGNS & TRADE MARKS

16th May, 2025

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202511040848 A

(19) INDIA

(22) Date of filing of Application :28/04/2025

(43) Publication Date : 16/05/2025

(54) Title of the invention : NEUROBEHAVIORAL DISORDER CLASSIFICATION SYSTEM BASED ON MULTIMODAL DATA

(51) International classification :A61B0005000000, G16H0050200000, A61B0005020500, G16H0050300000, G06N0020000000

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

(87) International Publication No : NA

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

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

(71)Name of Applicant :
1)Swami Rama Himalayan University
 Address of Applicant :Swami Rama Himalayan University, Swami Ram Nagar, Jolly Grant, Dehradun-248016 -----

Name of Applicant : NA
Address of Applicant : NA

(72)Name of Inventor :
1)Himanshu Rana
 Address of Applicant :Himalayan School of Science and Technology, Swami Rama Himalayan University, Jolly Grant-248016 Dehradun -----

2)Sameer Shahi
 Address of Applicant :Himalayan School of Science and Technology, Swami Rama Himalayan University, Jolly Grant-248016 Dehradun -----

3)Karnika
 Address of Applicant :Himalayan School of Science and Technology, Swami Rama Himalayan University, Jolly Grant-248016 Dehradun -----

4)Apurv Dhasmana
 Address of Applicant :Himalayan School of Science and Technology, Swami Rama Himalayan University, Jolly Grant-248016 Dehradun -----

5)Yashasvi Kapil
 Address of Applicant :Himalayan School of Science and Technology, Swami Rama Himalayan University, Jolly Grant-248016 Dehradun -----

6)Dr. Deepak Srivastava
 Address of Applicant :Department of Computer Science and Engineering, Himalayan School of Science and Technology, Swami Rama Himalayan University, Jolly Grant-248016 Dehradun -----

(57) Abstract :
 The present invention discloses a neurobehavioral disorder classification system based on multimodal data utilizing hardware-enabled real-time monitoring and AI-based diagnostics. The system comprises a data acquisition unit integrated with a microphone, high-resolution camera, and physiological sensors including EEG, ECG, heart rate, and motion sensors. A processing unit with machine learning capabilities analyzes speech, facial expressions, and physiological signals to detect indicators of mental disorders. A graphical user interface on a display unit or mobile device provides personalized feedback and recommendations. The system leverages advanced natural language processing (NLP), facial emotion recognition, and federated learning for privacy-preserving diagnostics. It includes a recommendation module offering context-sensitive mental health advice and real-time alerts. Designed for clinical and remote use, the system supports culturally adaptive assessments, comorbidity profiling, and gamified or AR-based interaction to enhance mental health detection and care delivery.

No. of Pages : 24 No. of Claims : 10