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(71)Name of Applicant :
  1)CMR COLLEGE OF ENGINEERING & TECHNOLOGY
    Address of Applicant :KANDLAKOYA, MEDCHAL ROAD, HYDERABAD, TELANGANA, INDIA, 501401. Hyderabad ----------- -- ---------
Name of Applicant : NA
Address of Applicant : NA
(72)Name of Inventor :
  1)Mr. P. RAVEENDRA BABU
Address of Applicant :Associate Professor Electronics & Communication Engineering CMR COLLEGE OF ENGINEERING & TECHNOLOGY KANDLAKOYA, MEDCHAL ROAD, HYDERABAD, TELANGANA, INDIA, 501401 Hyderabad ----------- -----------
  2)Dr. B. PREMALATHA
Address of Applicant :Associate Professor Electronics & Communication Engineering CMR COLLEGE OF ENGINEERING & TECHNOLOGY KANDLAKOYA, MEDCHAL ROAD, HYDERABAD, TELANGANA, INDIA, 501401 Hyderabad ----------- -----------
  3)Mr. ABDUL SUBHANI SHAIK
Address of Applicant :Associate Professor Electronics & Communication Engineering CMR COLLEGE OF ENGINEERING & TECHNOLOGY KANDLAKOYA, MEDCHAL ROAD, HYDERABAD, TELANGANA, INDIA, 501401 Hyderabad ----------- -----------
  4)Dr. E.N.V. PURNA CHANDRA RAO
Address of Applicant :Professor Electronics & Communication Engineering CMR COLLEGE OF ENGINEERING & TECHNOLOGY KANDLAKOYA, MEDCHAL ROAD, HYDERABAD, TELANGANA, INDIA, 501401 Hyderabad ----------- -----------
  5)MrS. KRISHNAVENI
Address of Applicant :Assistant Professor Electronics & Communication Engineering CMR COLLEGE OF ENGINEERING & TECHNOLOGY KANDLAKOYA, MEDCHAL ROAD, HYDERABAD, TELANGANA, INDIA, 501401 Hyderabad ----------- -----------

(57) Abstract :
ADVANCED AI-ENHANCED WEARABLE SENSOR FOR DATA COLLECTION AND ANALYSIS ABSTRACT The present invention discloses an advanced AI-enhanced wearable sensor designed for efficient data collection and analysis. The wearable sensor integrates a compact sensor module within its form factor, enabling the capture of diverse physiological, environmental, or motion data. Incorporating a communication module, the device facilitates seamless wireless data transfer to external devices such as smartphones or tablets. The heart of the innovation lies in the processing unit, which harnesses the power of artificial intelligence algorithms for real-time analysis and interpretation of the collected data. This intelligent processing not only provides valuable insights into the wearer's health and activities but also adapts over time through machine learning algorithms, customizing the experience based on individual patterns and preferences. The wearable sensor further includes a user interface component for interactive feedback and customization, enhancing user engagement. The invention introduces a novel approach to wearable sensor technology, ensuring accuracy, versatility, and user-centric adaptability for a wide range of applications.

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