

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :16/10/2024

(21) Application No.202411078751 A

(43) Publication Date : 25/10/2024

(54) Title of the invention : AI-IOT ENABLED MONITORING DEVICE FOR DIABETIC PATIENTS

(51) International classification	:A61B0005000000, A61B0005145000, G16H0050200000, H04L0009400000, G16H0040670000	(71) Name of Applicant : 1)Manish Kumar Address of Applicant :J-14, PSIT,Kanpur-Agra-Delhi NH2, Bhauti, Kanpur-209305 ----- Name of Applicant : NA Address of Applicant : NA
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Filing Date	:NA	

(57) Abstract :

This invention presents an advanced intelligent architecture for the surveillance of diabetic disease, aimed at reducing the high costs associated with ongoing patient monitoring while improving healthcare outcomes. The system leverages information and communication technologies (ICTs), artificial intelligence, and smart devices to enable remote monitoring by physicians. It integrates sensors within smartphones and smart portable devices to continuously collect real-time data on key health parameters such as blood glucose levels and body temperature. The collected data is processed by an intelligent algorithm that can detect whether any health parameter has exceeded a critical threshold, determining the urgency of the situation. To ensure seamless operation, the system includes a secure wireless communication mechanism that connects the portable device with the patient's smartphone. By utilizing cutting-edge ICT and AI technologies, this system offers a cost-effective solution for continuous diabetic patient surveillance, reducing the financial burden on governments and families while enhancing patient care. The invention represents a significant step towards more efficient, reliable, and accessible healthcare management for diabetic patients.

No. of Pages : 10 No. of Claims : 7