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INTELLIGENT, SECURED SMART APP FOR COMPLETE DIABETES LIFESTYLE MANAGEMENT – "DIABETA"

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Abstract

Especially today's society tends to use new technological devices instead of relying on document materials in daily life. While there are diabetes-related apps that more accurately predict users' prediabetes or diabetes type 2 using machine learning approaches, predicting health risks by analyzing glucose monitoring data, recommend meal and exercise plan, and using a non-invasive approach to measure and monitor blood glucose level, heart rate and blood oxygen level, and over Wi-Fi using NodeMCU makes the proposed DiaBeta application unique among diabetes applications. Other secondary functions such as digital logbook, reminders, lifestyle-based meal recommendation, medical guidelines, and efforts such as glucose monitoring data can be easily performed with a smartphone. DiaBeta is a life-saving app that can be used anyone around the world to get a more accurate and personalized meal plan. DiaBeta offers precise, clinical, validated, and standardized solution for diabetes patient.

Keywords: non-invasive, diabetes prediction, machine learning, NodeMCU, IoT