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Machine Learning for Reliable Insulin Dosage Prediction in Diabetic Patients

Dr. Rachana P[1], Akash Pujari[2], Surabhi[3], Asha H. D[4], Guruprasad[5]
Department of Information Science and Engineering[1-5]
Alva's Institute of Engineering and Technology, Mijar, Karnataka, India

Abstract: *This study aims to create an intelligent system driven by machine learning that can predict diabetes and suggest accurate insulin dosage. The best insulin dosage for each person is determined by the system by analyzing important factors such blood glucose levels, body mass index (BMI), history of insulin use, and other pertinent health indicators. Using a large dataset of patient medical information, the model is trained to find trends and produce well-informed, data-driven forecasts. This method reduces the chance of severe hypoglycemia (low blood sugar) or hyperglycemia (high blood sugar) brought on by improper insulin delivery, improving the control of diabetes. By providing precise, dependable, and customized insulin dose recommendations, the system aims to assist people with diabetes.*

Keywords: Diabetes prognosis, suggested insulin dose, intelligent system, healthcare technology, diabetes treatment, quality of life

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