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Diabetic disease prediction using Fuzzy system

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Abstract. Diabetic is a metabolic syndrome which is characterized by hyperglycemia (high blood sugar) and impairs metabolism fat and protein. Common symptoms are frequent urination, increased appetite and increased thirst. If left untreated, diabetes can cause many health complications such as stroke, chronic kidney, cardiovascular disease, foot ulcers, nerve damage, and eye damage. Recent surveys have shown that the number of people affected by diabetes are growing rapidly, so early prediction of diabetes can solve many complications related to diabetes. Nowadays there are enough medical data available to do predictive analysis with the help of modern software and technologies.

The aim of this paper is to provide more accurate predictions based on available medical data. The method proposed in this paper provides fuzzy solution for early prediction of diabetic disease using diabetes risk factors like pregnancies, glucose, blood pressure, skin thickness, insulin, BMI, diabetes pedigree values and age. The experimental and visual results show the proposed method predicts early diabetes efficiently and accurately with accuracy 75.65%.

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