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Diagnosis of Diabetes Mellitus Symptoms Using Simple Additive Weighting and Weighted Product Methods

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Abstract: Diabetes Mellitus is a disease when the body has abnormalities in insulin secretion, insulin performance or both, maintaining excess sugar in the blood. Diabetes Mellitus is caused by an imbalance between the supply and demand of insulin facilitating the entry of glucose into cells. Reduced or absent insulin makes glucose retained in the blood and leads to an increase in blood sugar, while cells become deficient in glucose badly needed for cell survival and function [8]. The frightening consequence of diabetes mellitus is that patients are at a high risk of cardiovascular disease, kidney disease, rupture of blood vessels, heart attack, stroke, leg ulcers, infection, amputation and all risks. Diabetes Mellitus is also a disease that shows an increase in glucose due to insulin deficiency which can cause macrovascular, microvascular and neurological complications. Considering those as described above, this study is intended to provide a decision support system for public to get informed of the risk of diabetes militus so as to take an immediate action. The methods used in this research are the SAW(Simple Additive Weighting) and WP (Weighted Product) methods to diagnose the diabetes militus symptoms.

Keywords: *Diabetes Melitus; Decision Making Support System; Simple Additive Weighting (SAW), Weighted Product (WP).*

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