

A Novel technique for efficient diagnosis of diseases

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June 3, 2023

Abstract

The Fuzzy logic offers an intelligent bound for information illustration and analysis to handle quality, uncertainty, and ambiguity. Fuzzy logic is applied to combine human knowledgeable information and discrete computing. As per our study, explicit mathematical model has not been developed in the existing research work to explain the behavior of advanced system. A novel mathematical model for defining the behavior of such system has been introduced in the paper. Different techniques to calculate distance between two Intuitionistic Fuzzy Sets (IFSs) have been analyzed in the proposed model. In the proposed model a novel distance calculation technique has been introduced. The proposed technique of distance calculation can be used in medical diagnostic for decision making. Further, to analyze the outcomes of the proposed model, different possible outcomes of diagnosis with the existing techniques have been compared. By comparing the results of proposed technique with the existing techniques, 65% improvements in the decision of medical diagnosis can be achieved.

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