Abstract

The logical thinking of medical practitioners play significant role in decision making about diagnosis and exhibit variation in decisions because of their approaches to deal with uncertainties and vagueness in the knowledge and information. Fuzzy logic has proved to be the remarkable tool for building intelligent decision making systems for approximate reasoning that can appropriately handle both the uncertainty and imprecision. The attempt has been made to explore the capabilities and potentialities of fuzzy expert systems for the emulation of thought in a much more general sense although confined to medical diagnosis. Generic medical fuzzy expert system for diagnosis of cardiac diseases is designed. Mathematical model is developed to predict the risk of heart disease and to compare with the performance of fuzzy expert system. Reported the user friendly decision support system developed for medical practitioners as well as patients. A mathematical model is developed to justify performance of fuzzy expert system.
Generic Medical Fuzzy Expert System for Diagnosis of Cardiac Diseases


Masulli, F., Schenone, A. 1999. A Fuzzy Clustering Based Segmentation System as Support to Diagnosis in Medical Imaging. Artificial Intelligence in Medicine, 16: 129-147.


Seising, R. 2004. A History of Medical Diagnosis Using Fuzzy Relations. Fuzziness in Finland&apos;04, 1-5.


Index Terms

Computer Science

Bio-medical Sciences
Keywords

Fuzzy expert system  generic framework  medical diagnosis  risk predictive model