

# Fuzzy Logic in the Medical Field Using Decision Making Process

M. Vijaya and V. Arivazhagan\*

PG and Research Department of Mathematics, Marudupandiyar College, Thanjavur, India

\*Corresponding author: mathvijaya23@gmail.com, arivu.vera@gmail.com

## ABSTRACT

The challenges of treating sick people are one of the biggest issues that both developed and underdeveloped nations are currently dealing with. The majority of these countries are spending a lot of resources on dealing with this issue, but they are still unable to satisfy the expectations of delivering high-quality medical services for their citizens. There is a shortage of medical competence in many hospitals. Finding a long-term solution to the issue of the traditional approach of medical diagnosis, which is characterized by inaccuracy and imprecision, has been of great concern. In order to ensure accuracy and precision in the field of medicine, several researchers have created various algorithms and technologies (such as Fuzzy Logic, Genetic Algorithms, and even Artificial Neural Networks). In order to improve the accuracy and precision of medical diagnosis, this study discusses the development of a fuzzy logic-based medical diagnostic system. The suggested approach gives a solution to the significant duties of the diagnostic procedure used by medical workers. Advanced medical diagnosis systems can be created to assist with tasks like prescribing medications, registering patients, and maintaining patient information and records in the medical field.

**Keywords:** Expert system, Fuzzy logic, Fuzzy Expert system

