



**SURVEY ARTICLE**

# **Comparison of ANNs, Fuzzy Logic and Neuro-Fuzzy Integrated Approach for Diagnosis of Coronary Heart Disease: A Survey**

**Nitin Kumari<sup>1</sup>, Sunita<sup>2</sup>, Smita<sup>3</sup>**

<sup>1</sup>M.Tech Student, CSE, PDM College of Engineering for Women, Bahadurgarh affiliated to M.D.U, Rohtak, India

<sup>2</sup>Assistant Professor, CSE, PDM College of Engineering for Women, Bahadurgarh affiliated to M.D.U, Rohtak, India

<sup>3</sup>Assistant Professor, CSE, PDM College of Engineering for Women, Bahadurgarh affiliated to M.D.U, Rohtak, India

<sup>1</sup> [nitinyadav8914@yahoo.co.in](mailto:nitinyadav8914@yahoo.co.in); <sup>2</sup> [bhardwajsunita23@gmail.com](mailto:bhardwajsunita23@gmail.com); <sup>3</sup> [26.smita@gmail.com](mailto:26.smita@gmail.com)

---

***Abstract— Data mining is an art of searching large databases to discover useful patterns and trends that go beyond simple analysis. Data mining plays an important role in health care. Health care industry comprises of large amount of data which has to be refined in order to get useful information from it. In this paper, we compare three techniques for mining health care data to predict whether a person suffers from coronary heart disease or not. These techniques are: ANNs, fuzzy logic and neuro-fuzzy integrated approach. Although ANN and fuzzy logic have a lot of advantages but they have some disadvantages too. Neuro-fuzzy is a combination of advantages of ANN and fuzzy logic. By comparing all these techniques, we conclude that neuro-fuzzy integrated approach is the best among these three techniques for diagnosis of coronary heart disease.***

***Key Terms: - CHD; Heart disease; ANNs; Data mining; Fuzzy logic; Neuro-Fuzzy approach***

---

Full Text: <http://www.ijcsmc.com/docs/papers/June2013/V2I6201358.pdf>