

# Impact of Bio-inspired Algorithms to Predict Heart Diseases

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## Abstract

Optimization techniques are employed to deal with dynamic, difficult, and robust problems. Most of the Machine learning algorithms are implemented to predict heart diseases. Classification techniques are one of the methods that is highly used in machine learning for prediction. Some classification methods predict accuracy with acceptable range, but others may not. In this paper, we streamline two different bio inspired algorithms, Ant and Bat are used for heart disease prediction. Here, we extracting the key features from heart disease attributes using these two bio-inspired algorithms. Then these extracted features are implemented to the different classifiers. In this research, we examine the bio inspired algorithms optimized with Random Forest and SVM classifiers and compared the results. Ant colony optimization and Bat colony optimization give better results with SVM classifier than Random Forest classifier. When comparing the results in this research, Bat algorithm is better-optimized algorithm than ant algorithm.

## Keywords

Heart disease prediction Bio inspired algorithms Bat colony optimization

Ant colony optimization

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