Empathy Map

Problem Statements

1. Design and Implement the Heart Attack Prediction and Detection System using machine learning techniques
2. There are instruments available which can predict heart disease but either it are expensive or are not efficient to calculate chance of heart disease in human. Since we have a good amount of data in today’s world, we can use various machine learning algorithms to analyse the data for hidden patterns.
3. Prediction of heart disease using different classification algorithms such as K-Nearest Neighbour, Support Vector Machine, Naïve Bayes, Random Forest and a Multilayer Perception | Artificial Neural Network optimized by Particle Swarm Optimization (PSO) combined with Ant Colony Optimization (ACO) approaches.
4. Early detection of cardiac diseases can decrease the mortality rate and overall complications. However, it is not possible to monitor patients every day in all cases accurately and consultation of a patient for 24 hours by a doctor is not available since it requires more sapience, time and expertise. Since we have a good amount of data in today’s world, we can use various machine learning algorithms to analyse the data for hidden patterns. The hidden patterns can be used for health diagnosis in medicinal data.
5. A major challenge faced by health care organizations, such as hospitals and medical centers, is the provision of quality services at affordable costs. The quality service implies diagnosing patients properly and administering effective treatments. The available heart disease database consists of both numerical and categorical data. Before further processing, cleaning and filtering are applied on these records in order to filter the irrelevant data from the database