**Course Objectives**

1. To understand the concepts of Machine Learning - Concept learning and Decision Trees

2.  To gain an insight into Neural network learning and study of genetic algorithms.

3. To possess knowledge in Bayesian Learning

4. To explore the concept of Instance-based Learning.

5. To understand the inference and learning algorithms for Hidden Markov Model.

**Course Outcomes**

At the end of the course, the student will be able to:

1. Understand concept learning and decision trees and track the working of respective algorithms.

2. Investigate Neural Networks and Genetic Algorithms as w ell as Genetic Programming.

3.  Illustrate the working of Bayesian Learning Algorithms through probability values.

4.  Demonstrate knowledge in foundations of Instance-based Learning approaches.

5.  Train different Hidden Markov Models for calculating the best fitting model.