**SRM University – AP, Amaravati**

**Introduction to Machine Learning**

**Lab 07: Decision Tree**

1. Implement Decision Tree Classifier for classification of EnjoySport dataset
   1. Load the data set
   2. Create a function for calculating entropy
   3. Create a function for calculating InformationGain
   4. write code for creating Discission Tree
2. Implement Decision Tree Classifier for classification of EnjoySport dataset
   1. Load the data set
   2. Use Label Encoding
   3. create a Decision Tree
   4. Visualize the tree

Hint: https://www.enjoyalgorithms.com/blog/decision-tree-algorithm-in-ml

1. Implement Decision Tree Classifier for classification of Iris dataset
   1. Load the data set
   2. Split the data set to train and test sets
   3. Train a Decision Tree using train set
   4. Test the model using test set. Find accuracy and confusion Matrix.
2. Implement Random Forest Classifier for classification of Iris dataset
   1. Load the data set
   2. Split the data set to train and test sets
   3. Train a Random Forest model using train set
   4. Test the model using test set. Find accuracy and confusion Matrix.

Dataset Location: https://drive.google.com/drive/u/1/folders/1C0NaH0f8ksYO2rY2VbZmvLqIC35MwbMc