

**ANALYSIS OF PLACEMENT PERFORMANCE PREDICTION ON STUDENTS DATA
USING MACHINE LEARNING ALGORITHM**

B. Kalaiselvi, Research Scholar, Department of Computer Science, Government Arts College,
Udumalpet.

Dr. S. Geetha, Assistant Professor, Department of Computer Science, Government Arts College for
Women, Puliakulam, Coimbatore.

Abstract:

Machine learning plays key role in the modern higher education methodologies to enhance the performance of the students, predict the outcome of the student and personalized e-learning systems. It helps to produce the proficient graduates and increase the competence of the educators and learners. Academic performance prediction helps to enhance the student's performance in end semester exams and placements. Using classification and clustering techniques from Educational Data Mining (EDM) helps to visualize, classify and predict the academic performance of the students by utilizing the socio-economic and academic data. Prediction of student's performance in placement exams are more complex task for the staffs and placement cell since attaining good marks and getting placement offer from valuable concern will be the final goal for most of the students. Hence better and accurate system is required to predict and enhance the performance in placement exams. This system proposed a decision tree based framework model to predict the placement possibility for the students using passedout student data using j48 classifier. Passed out student data set is used to train the proposed model and also test the trained model to predict the placement possibility. The experimental results shows 87% of prediction accuracy in complete data set and shows the 95% of accuracy in training set after splitting the data set into train (70% of instance) and test (30% of instance).

Keywords: Placement performance, Decision Tree, j48.

I. INTRODUCTION

EDM plays significant role to extract the hidden patterns and information from the student's personal, socio-economic and academic data. EDM helps to predict the student's outcome and placement performance, analyses the learning difficulties and requirement of updating the curriculum and teaching strategies. Placements in the period of under graduation completion determine the quality of outcome and standard of the educational institution. Various factors influence the student to obtain good marks in the final exams and obtain the placements.

The proposed decision tree based model is mainly focused on exploring various indicators that have an effect on the placement performance of the students. The extracted hidden information from the training data set (passed out student's details) using J48 classifier is used to generate the decision tree to predict the placement possibility in the test data. It helps to the placement cell, faculties and management to improvise the quality of the students and increase placement opportunities to the students. Extracted hidden information and obtained knowledge from the training data is used for predicting the student's performance in advance.

II. LITERATURE SURVERY

Nursaini A R. [1] provides an general idea on the data mining techniques used to predict student performance. In this work reviews on prediction methods such as decision tree, neural network, naive bayes, k-nearest neighbour and SVM. It uses the Cumulative Grade Point Average and internal assessment of the Malaysian students as a dataset. When compared with all prediction methods neural networks and decision tree is preeminent to predict the students' academic performance.

O Edin [2] considers the student demographic variables, achieved results from high school and from the entrance exam, mind-set towards studying. This research is conducted among first year Students in Department of Economics in university of TUZLA. This paper uses Naive bayes, multilayer