**Abstract**

The “Car Manufacturing” sector occupies a prime position in the development of automobile industry. In this paper, a proposed data mining application in car manufacturing domain is explained and experimented. The datasets are retrieved from UCI Machine learning repository. The purpose of this paper is to establish a classifier that is much more reliable in classifications for future objects. The classifier should provide sophisticated prediction to indicate the car data for a new input instance with some attributes, such as car type, body-style, horsepower and fuel. Such analysis helps in providing car market with base for more accurate result for the future market. The physical characteristics of a car viz. aspiration, number of doors, body-style, normalized losses, car-type, drive wheels, engine-location, wheel-base, curb-weight, horse-power, bore, stroke, city-mpg, highway-mpg, price, engine size, etc., are considered to determine the performance of a car. Hence development of such a classifier, though a voluminous task, is immensely essential in car manufacturing realm. Machine learning techniques can help in the integration of computer-based systems in predicting the quality of car and to improve the efficiency of the system. The classification models were trained by using 214 datasets. The predicted values for the classifiers were evaluated using 10-fold cross validation and the results were compared.