#### **Literature Survey**

## 1.Used Car Price Prediction using K-Nearest Neighbor Based Model by: K.Samruddhi Dr. R.Ashok Kumar

Predicting the price of used cars is one of the significant and interesting areas of analysis. As an increased demand in the second-hand car market, the business for both buyers and sellers has increased. For reliable and accurate prediction it requires expert knowledge about the field because of the price of the cars dependent on many important factors. This paper proposed a supervised machine learning model using KNN (K Nearest Neighbor) regression algorithm to analyze the price of used cars. We trained our model with data of used cars which is collected from the Kaggle website. Through this experiment, the data was examined with different trained and test ratios. As a result, the accuracy of the proposed model is around 85% and is fitted as the optimized model.

## 2.Used Cars Price Prediction and Valuation using Data Mining Techniques by: Abdulla AlShared

Due to the unprecedented number of cars being purchased and sold, used car price prediction is a topic of high interest. Because of the affordability of used cars in developing countries, people tend more used cars purchase. A primary objective of this project is to estimate used car prices by using attributes that are highly correlated with a label (Price). To accomplish this, data mining technology has been employed. Null, redundant, and missing values were removed from the dataset during preprocessing. In this supervised learning study, three regressors (Random Forest Regressor, Linear Regression, and Bagging Regressor) have been trained, tested, and compared against a benchmark dataset.

### 3. Used Car Price Prediction using K-Nearest Neighbor Based Model by: K.Samruddhil Dr. R.Ashok Kumar

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#### 4. Vehicle Price Prediction using SVM Techniques by: S.E.Viswapriya, Durbaka Sai Sandeep Sharma, Gandavarapu Sathya kiran

The prediction of price for a vehicle has been more popular in research area, and it needs predominant effort and information about the experts of this particular field. The number of different attributes is measured and also it has been considerable to predict the result in more reliable and accurate. To find the price of used vehicles a well defined model has been developed with the help of three machine learning techniques In this paper, we applied different methods and techniques in order to achieve higher precision of the used vehicle price prediction. II. Such as Artificial Neural Network, Support Vector Machine and Random Forest. These techniques were used not on the individual items but for the whole group of data items.

#### 5. Car Price Prediction Using Machine Learning by: Ketan Agrahari, Ayush Chaubey, Mamoor Khan, Manas Srivastava

The demand for used cars has increased significantly in the past decade and it is prognosticated that with Covid-19 outbreak this requirement will augment considerably. Hence to enhance the reliability, with the expansion of the used car market, a model that can forecast the current market price of a used automobile on the basis of a variety of criteria. This analysis can be used to study the trends in the industry, offer better insight into the market, and aid the community in its smooth workflow. The aim of this research paper is to predict the car price as per the data set (previous consumer data like engine capacity, distance traveled, year of manufacture, etc.). The result of these algorithms will be analyzed and based on the efficiency and accuracy of these algorithms, the best one of them can be used for the said purpose.

## 6. Predicting the Price of Used Cars using Machine Learning Techniques by: Sameerchand Pudaruth

In this paper, we investigate the application of supervised machine learning techniques to predict the price of used cars in Mauritius. The predictions are based on historical data collected from daily newspapers. Different techniques like multiple linear regression analysis, k-nearest neighbours, naïve bayes and decision trees have been used to make the predictions. The predictions are then evaluated and compared in order to find those which provide the best performances. A seemingly easy problem turned out to be indeed very difficult to resolve with high accuracy. All the four methods provided comparable performance. In the future, we intend to use more sophisticated algorithms to make the predictions.

## 7. Car Price Prediction using Machine Learning Techniques by :Enis Gegic, Becir Isakovic, Dino Keco, Zerina Masetic, Jasmin Kevric

A car price prediction has been a highinterest research area, as it requires noticeable effort and knowledge of the field expert. Considerable number of distinct attributes are examined for the reliable and accurate prediction. To build a model for predicting the price of used cars in Bosnia and Herzegovina, we applied three machine learning techniques (Artificial Neural Network, Support Vector Machine and Random Forest). However, the mentioned techniques were applied to work as an ensemble. The data used for the prediction was collected from the web portal autopijaca.ba using web scraper that was written in PHP programming language. Respective performances of different algorithms were then compared to find one that best suits the available data set.

# 8.Car Sales Prediction Using Machine Learning Algorithms by :Madhuvanthi.K, Nallakaruppan.M.K, Senthilkumar N C, Siva Rama Krishnan S

Sales prediction is the current numero trend in which all the business companies thrive and it also aids the organization or concern in determining the future goals for it and its plan and procedure to achieve it. The data about car sales are derived from various sources. sales of cars does not contain any independent variable since various factors such as horse power; model, width, fuel type, height, price, city-mileage, highway-mileage and manufacturer are the various features that influence the sales.

# 9. Prediction of prices for used car by using regression models by : Nitis Monburinon, Prajak Chertchom; Thongchai Kaewkiriya; Suwat Rungpheung; Sabir Buya; Pitchayakit Boonpou

For this research, we conducted a comparative study on performance of regression based on supervised machine learning models. Each model is trained using data of used car market collected from German e-commerce website. As a result, gradient boosted regression trees gives the best performance with mean absolute error (MSE) =3D 0.28. Followed by random forest regression with MSE =3D 0.35 and multiple linear regression with MSE =3D 0.55 respectively.

#### 10.Used Car Price Prediction using Different Machine Learning Algorithms by :Prof. Pallavi Bharambe, Bhargav Bagul, Shreyas Dandekar, Prerna Ingle

In this project, We have Considered number of distinct attributes which are examined for the reliable and accurate prediction. To build a model for predicting the price of used cars we have used three different kinds of machine learning techniques which comes under supervised machine learning type of algorithm which are linear regression, lasso regression and ridge regression respectively.