**RED AUTHENTICITÉ**

**Literature Review**

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**R.No - Reference Number**

**YOP - Year of Publishing**

**DU - Dataset Used**

**MU - Methodology Used**

**ADV - Advantages**

**D.Adv - Disadvantages**

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| **R.No** | **Authors** | **Title** | **YOP** | **DU** | **MU** | **Adv** | **D.Adv** |
| 1 | Yogesh Gupta | Selection of Important Features and Predicting Wine Quality using Machine Learning Techniques | 2017 | Portuguese  Wine Dataset - 4898 White Wine & 1599 Red Wine Samples | Linear Regression; Vector Machine & Neural Network | Performed over very large dataset and uses 11 physio -chemical characteristics | Works better with fewer characteristics, becomes less accurate when those specific characteristics are not considered |
| 2 | Satyabrata Aich;  Ahmed Absi;  Kueh Lee Hui;  Mangal Sain | Prediction of Quality for Different Type of Wine  based on Different Feature Sets Using Supervised  Machine Learning Techniques | 2019 | Portuguese  Wine Dataset - Vinho Verde | Genetic Algorithm and  Simulated Annealing for Feature Selection;  Support Vector Machines | Various different models tried;  Usage of combinatorial optimization method | SA and GA based feature sets don’t provide the highest accuracy |
| 3 | Devika Pawar;  Aakansha Mahajan;  Sachin Bhoithe | Wine Quality Prediction using Machine Learning  Algorithms | 2016 | Red Wine Quality Dataset - Kaggle | Random Forest Decision Trees;  Support Vector Machines;  Stochastic Gradient Descent | Data Splitting was Performed;  Data was highly processed. | Accuracy lower than other implementations. |
| 4 | Nikita Sharma | Quality Prediction of Red Wine based on Different  Feature Sets Using Machine Learning Techniques | 2020 | Red Wine extracted from Vinho Verder | Logistic Regression;  Support Vector Machines;  Random Forest;  Decision Tree | Most number of Models tried;  Upto 100% accuracy achieved in certain cases | Very high Delta of Accuracy;  Model can underperform upto 48% |
| 5 | Paulo Cortez;  Telmo Matos;  Jose Luis Reis | Using Data Mining for Wine Quality Assessment | 2009 | Portuguese  Wine Dataset - Vinho Verde | Logistic Regression;  Support Vector Machine;  Multilayer Perceptron Neural Network | Utilization of Neural Networks;  HIghly apt SVM;  HIgh Accuracy; | Slightly old as compared to other papers, hence misses out on few later advancements |
| 6 | [Wilson Castro](https://ieeexplore.ieee.org/author/37086339999) ; [Jimy Oblitas](https://ieeexplore.ieee.org/author/37086605197) ; [Miguel De-La-Torre](https://ieeexplore.ieee.org/author/37887177300) ; [Carlos Cotrina](https://ieeexplore.ieee.org/author/37086800453) ; [Karen Bazán](https://ieeexplore.ieee.org/author/37086797885) ; [Himer Avila-George](https://ieeexplore.ieee.org/author/37086604613) | Classification of Cape Gooseberry Fruit According to its Level of Ripeness Using Machine Learning Techniques and Different Color Spaces | 2019 | A sample of gooseberry fruits was collected from a plantation located in the village of El Faro, Celendin Province, Cajamarca, Peru. The sample consisted of 925 Cape gooseberry fruits with different levels of ripeness. | Twelve classification models were developed by combining four machine learning techniques, (such as artificial neural networks (ANN), support vector machines (SVMs), decision trees(DT), and K-nearest neighbor algorithms(KNN))with three color spaces (RGB, HSV, and L\*a\*b\*) | The principal component analysis combination of color spaces and machine learning techniques improved the performance of the models. | Increased complexity of models. Not all combinations have the same accuracy. |
| 7 | Prachi Jambhulkar, Vaidehi Baporikar | Review on Prediction of Heart Disease Using Data Mining Technique with Wireless Sensor Network | 2015 | Medical attributes were obtained from the Cleveland heart disease databases. With the help of the dataset the pattern significant to the cardiac prediction were extracted. | Naive bayes (Naïve bayes is a classification technique based on probability theory to find out most likely significant possible classifications), J48 decision tree, bagging. | This system can be used for providing enhanced healthcare services to cardiac patients. Thus, the early diagnosis of heart disease detection may reduce the chances of death in cardiac patients. | Making the model after physical testing is not feasible. |
| 8 | [Meng Zhang](https://ieeexplore.ieee.org/author/37087882589) ; [Huaiqing Zhang](https://ieeexplore.ieee.org/author/37088483250) ; [Xinyu Li](https://ieeexplore.ieee.org/author/37088484487) ; [Yang Liu](https://ieeexplore.ieee.org/author/37088481270) ; [Yaotong Cai](https://ieeexplore.ieee.org/author/37087883430) ; [Hui Lin](https://ieeexplore.ieee.org/author/37537500300) | Classification of Paddy Rice Using a Stacked Generalization Approach and the Spectral Mixture Method Based on MODIS Time Series. | 2020 | The Dongting Lake area and Poyang Lake area.The Dongting Lake area is located in the middle reach of the Yangtze River, southern China.Poyang Lake is the largest freshwater lake in China, which is also located in the middle reach of the Yangtze River and has similar climatic conditions with Dongting Lake. | The support vector machine, random forest, k-nearest neighbor (kNN), extreme gradient boosting (XGB), and decision tree. | The proposed method achieved high classification accuracies in paddy rice mapping at large scales. | A number of factors could affect the accuracy of paddy rice mapping when using the proposed method- temporal resolution of the MOD13Q1 dataset ,the residual cloud contamination in the 16-day MODIS time series EVI and the selection of machine learning classifiers in the stacking algorithm. |
| 9 | A. Legin, A. Rudnitskaya, L. Lvova, Yu. Vlasov, C. Di Natale, A. D’Amico. | Evaluation of Italian wine by the electronic tongue: recognition, quantitative analysis and correlation with human sensory perception | 2003 | Measurements with the electronic tongue were performed in three types of Italian wine- Castelli Romani denomination, Barbera d’Asti and Gutturnio wine. | The electronic tongue based on a sensor array comprising 23 potentiometric cross-sensitive chemical sensors and pattern recognition and multivariate calibration data processing tools that determine taste and flavour of wine and, hence, the system was capable of predicting human sensory scores with average precision | The system can be put forward as an untraditional but yet promising instrument for multi component quantitative analysis of the wine and also for qualitative judgements about the identity of the wines, features of their flavour and hence quality of the wine. | The main disadvantages of E-Tongue sensors are that they are easily affected by environmental conditions i.e. temperature and humidity, which may cause sensor drift, and the adsorption of solution components that influence the membrane potential. |
| 10 | [Rocío Alaiz-Rodríguez](https://ieeexplore.ieee.org/author/38273447700) ; [Andrew C. Parnell](https://ieeexplore.ieee.org/author/37088348254) | [A Machine Learning Approach for Lamb Meat Quality Assessment Using FTIR Spectra](https://ieeexplore.ieee.org/document/9000861/) | 2020 | Real world spectral dataset of fat samples from suckling lambs.Lambs came from the flocks of three farms. The whole dataset has 134 instances: 66 from lambs being fed with a MR, while the other 68 are reared on ewe milk EM (from up to three days after birth to slaughter). | Neural network classifiers as well as different dimensionality reduction techniques are used. Six feature selection techniques -χ 2 , Information Gain, Gain Ratio, Relief and two embedded techniques based on the decision rule 1R and SVM (Support Vector Machine) are also assessed | The classification model that was developed of fat samples according to the rearing system based on the FTIR spectra provided several advantages to the existing analytical techniques mainly its speed, cost and versatility  It also helped in providing a deeper insight to veterinarian experts about the wavelengths that provide more information for the discrimination of fatty tissues in suckling lamb meat. | The feature selectors tend to be unstable for this real world application, likely due to the combination of high dimensionality and relatively few samples and the FTIR spectra comprises a large number of irrelevant and redundant information. |