**MINI PROJECT**

**BatchNo:IT01**

**BatchId:MIP-IT01**

**Abstract Proforma**

**Academic Year:** 2017-2021 Date: 30-01-2020

|  |  |  |
| --- | --- | --- |
| **Year & Branch:** III Year II Semester (INFORMATION TECHNOLOGY) | | **Section: A** |
| **Student Registration Details** | P.Dileep Reddy | |
| **Name & Roll Numbers** |
| **Name of the Guide & Designation** | P.Ramesh | |

|  |  |
| --- | --- |
| **Area (Domain) of the Project** | Website |
| **Title of the Project** | Wine quality prediction through machine learning algorithms |

|  |
| --- |
| **Abstract:** |
| Wine classification is a difficult task since taste is the least understood of the human senses. A good wine quality prediction can be very useful in the certification phase, since currently the sensory analysis is performed by human tasters, being clearly a subjective approach. An automatic predictive system can be integrated into a decision support system, helping the speed and quality of the performance. Furthermore, a feature selection process can help to analyze the impact of the analytical tests. If it is concluded that several input variables are highly relevant to predict the wine quality, since in the production process some variables can be controlled, this information can be used to improve the wine quality. Classification models used here are 1) Random Forest 2) Stochastic Gradient Descent 3) SVC 4)Logistic Regression.  The data set consists of following attributes to test the wine:  1)fixed acidity 2) volatile acidity 3) citric acid 4) residual sugar 5) chlorides 6)free sulfur dioxide 7)total sulfur dioxide 8)density 9)pH 10) sulphates 11) alcohol Output variable (based on sensory data): 12)quality (score between 0 and 10) |

**Signature of the Guide HOD-CSE**