

## Project Development Phase Model Performance Test

Date	10 November 2022
Team ID	PNT2022TMID31390
Project Name	Project - Predicting the energy output of wind turbine based on weather condition
Maximum Marks	10 Marks

### Model Performance Testing:

S.N o.	Parameter	Values	Screenshot																																				
1	Metrics	<p><b>Regression Model:</b> MAE – 4.972 , MSE – 67.607, RMSE – 8.222, R2 score – 0.8849</p> <p><b>Classification Model:</b> Confusion Matrix – Displayed on the right side ,</p> <p><b>Accuracy Score- 88.4%</b></p>	<p>Mean Absolute Error: 4.972486590131098 Mean Squared Error: 67.60709947932519 Root Mean Squared Error: 8.222353645965685</p> <pre>from sklearn.metrics import r2_score  r2_score(y_test, y_pred)</pre> <p>0.8849999426996336</p> <p>Ref: <a href="#">DEPLOYMENT-S_R_VIDHYAMBIKA.ipynb</a></p> <pre>Acc=pd.DataFrame({'Actual_y_value':y_test,'Predicted_y_value':y_pred}) Acc</pre> <table><thead><tr><th></th><th>Actual_y_value</th><th>Predicted_y_value</th></tr></thead><tbody><tr><td>50585</td><td>41.646313</td><td>33.260701</td></tr><tr><td>1610</td><td>26.752834</td><td>25.186579</td></tr><tr><td>68970</td><td>0.186879</td><td>0.328045</td></tr><tr><td>66444</td><td>1.792049</td><td>0.463834</td></tr><tr><td>38116</td><td>0.140692</td><td>0.483375</td></tr><tr><td>...</td><td>...</td><td>...</td></tr><tr><td>43785</td><td>7.865973</td><td>8.338973</td></tr><tr><td>34494</td><td>49.145634</td><td>51.113949</td></tr><tr><td>30848</td><td>1.079351</td><td>1.217201</td></tr><tr><td>33926</td><td>0.900288</td><td>0.494531</td></tr><tr><td>54458</td><td>84.859420</td><td>70.877957</td></tr></tbody></table> <p>21053 rows × 2 columns</p> <p>Ref:<a href="#">Model1_RandomForestRegressor_VIDHYAMBIKA.ipynb</a></p>		Actual_y_value	Predicted_y_value	50585	41.646313	33.260701	1610	26.752834	25.186579	68970	0.186879	0.328045	66444	1.792049	0.463834	38116	0.140692	0.483375	...	...	...	43785	7.865973	8.338973	34494	49.145634	51.113949	30848	1.079351	1.217201	33926	0.900288	0.494531	54458	84.859420	70.877957
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