Wind Speed at **Kopargaon** dated **05-07-2020**

**References taken from websites like weather.com, wunderground.com, theweathernetwork.com etc.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Timings (Hourly) | Weather | Wunderground | The weather network | Average Graph |
| 00.00 | 11 | 11 | 8 | 10 |
| 01.00 | 12 | 13 | 9 | 11 |
| 02.00 | 11 | 11 | 11 | 11 |
| 03.00 | 11 | 11 | 12 | 11 |
| 04.00 | 11 | 11 | 12 | 11 |
| 05.00 | 12 | 11 | 12 | 12 |
| 06.00 | 12 | 13 | 12 | 12 |
| 07.00 | 14 | 13 | 12 | 13 |
| 08.00 | 16 | 16 | 12 | 14 |
| 09.00 | 19 | 19 | 13 | 17 |
| 10.00 | 22 | 23 | 15 | 20 |
| 11.00 | 22 | 23 | 19 | 21 |
| 12.00 | 24 | 24 | 21 | 23 |
| 13.00 | 26 | 26 | 22 | 25 |
| 14.00 | 26 | 26 | 22 | 25 |
| 15.00 | 25 | 26 | 23 | 25 |
| 16.00 | 26 | 26 | 23 | 25 |
| 17.00 | 24 | 24 | 24 | 24 |
| 18.00 | 22 | 23 | 24 | 23 |
| 19.00 | 18 | 18 | 23 | 20 |
| 20.00 | 18 | 18 | 21 | 19 |
| 21.00 | 14 | 13 | 19 | 15 |
| 22.00 | 14 | 14 | 18 | 15 |
| 23.00 | 15 | 14 | 17 | 15 |
| Mean Wind Speed | 17.70 | 17.79 | 16.83 | 17.37 |



From the graph plotted above, one can find the average of all the sites which will give us an average graph, which is plotted above. For predicting wind speed, instead of taking references through these websites, we can use the references from Aurangabad Airport, Nashik Airport and Shirdi Airport too. These references too can be used for plotting the graphs shown above. Then the average of these graphs can be taken for further predictions.

Now, if we can measure the wind speed at our locality for minimum 2-3 times a day, by comparing it with the average obtained, we will achieve the desired graph.



The graph of values that are predicted is achieved as follows.



Thus the First Step of predicting wind turbine output i.e. Predicting Mean wind Speed is completed.