

Portal	Contents	Data Immediately Available	Has it been applied already? Where?	Stakeholder	License on reusability
	(values, duration)			(governmental, industrial, research)	
EDP Open Data	Sixteen datasets in the Open Wind Fram dataset. The website also has an Open Solar Plant dataset, which is not summarized here.	Yes, but a sign-in is needed. Once register and sign in, no need of further request.	Menezes2020, Eriksson2020, Chatterjee2021, Jia2021	Industry	See below
1 Wind Farm 1- Metmast Testing	MetMast SCADA data from the last 4 months of 2017 (Sept - Dec). Ten-minutes Mast SCADA data. Two wind speed sensors and average, variance, min, max of wind speed; one wind direction sensor (min, max, ave, var); Temperature, Pressure, Humidity, Precipitation and Rainedetection (all min, max, ave); Two anemometer sensors (sampling frequency, average sample rate, offset error, gain correction, offset correction), Pressure sensor offset, and Pressure sensor sampling frequency.				CC-BY-SA
2. Wind Farm 1- Metmast Training	Same nature as #1 but the durement is about 16 months, from 2016-JAN-01 through 2017-AUG-31, with four months data from 2017-JAN-03 to 2017-MAY-06 missing. Ten-minute data.				CC-BY-SA
3. Wind Farm 1 - Failures Training	The turbine failure log. A total of 23 records (23 rows), and each row has the following attributes: Turbine_ID, Component, Timestamp, Remarks. The "Remarks" is a short description of failure nature. Five turbines involved. Time span: 2016-MAR-03 through 2017-AUG-21.				CC-BY-SA
4. Wind Farm 1 - Logs Training	Operation log of five turbines. Time durations: 2016-JAN-01 00:02:18 through 2017-AUG-31 23:57:54. A total of 256,231 records. Time resolution uneven. Each record has the following attributes: TimeDetected; UnitTitle; Remark; UnitTitleDestination.				CC-BY-SA
5. Wind Farm 1 - Logs Testing	Operation log of five turbines. Time durations: 2017-SEP-01 00:00:48 through 2017-DEC-31 23:58:58. A total of 62,604 records. Time resolution uneven. Each record has the following attributes: TimeDetected; UnitTitle; Remark; UnitTitleDestination.				CC-BY-SA
6. Wind Farm 1 - Signals Testing	Wind turbine SCADA signals for the 5 selected wind turbines. The data is given for a 10-minute average period. Duration: 2017-SEP-01 through 2017-DEC-31. Each data record has the turbine ID, time stamp, and many channels of signals in the following categories: Generator RPM, rotor RPM, temperatures inside nacelle throughout the drivetrain, wind speed, wind direction, ambient temperature, Active power, Reactive power, Blades pitch angles, Grid active and reactive power, phase displacement, Frequency, Voltage, Current, Nacelle direction.				CC-BY-SA
7. Wind Farm 1 - Signals Training	Wind turbine SCADA signals for the 5 selected wind turbines. The data is given for a 10-minute average period. Duration: 2016-JAN-01 through 2017-AUG-31. Each data record has the turbine ID, time stamp, and many channels of signals in the following categories: Generator RPM, rotor RPM, temperatures inside nacelle throughout the drivetrain, wind speed, wind direction, ambient temperature, Active power, Reactive power, Blades pitch angles, Grid active and reactive power, phase displacement, Frequency, Voltage, Current, Nacelle direction.				CC-BY-SA
8. Wind Farm 1 - Failures 2017	The turbine failure log. A total of 12 records (12 rows), and each row has the following attributes: Turbine_ID, Component, Timestamp, Remarks. The "Remarks" is a short description of failure nature. Five turbines involved. Time span: 2017-JAN-25 through 2017-OCT-19. This dataset has seven records overlapping with Dataset #3.				CC-BY-SA
9. Wind Farm 1 - Failures 2016	The turbine failure log. A total of 16 records (16 rows), and each row has the following attributes: Turbine_ID, Component, Timestamp, Remarks. The "Remarks" is a short description of failure nature. Five turbines involved. This dataset is the subset having the 2016 failures recorded in Dataset #3.				CC-BY-SA
10. Wind Farm 1 - Logs 2016	Operation log of five turbines. This dataset is a subset of the 2016 Log records in Dataset#4.				CC-BY-SA
11. Wind Farm 1 - Signals 2016	Wind turbine SCADA signals in 2016 for the 5 selected wind turbines. This dataset is a subset of the 2016 signals in Dataset #7.				CC-BY-SA
12. Wind Farm 1- Metmast 2016	MetMast SCADA data in 2016. This dataset is a subset of the 2016 data in Dataset#2.				CC-BY-SA
13. Wind Farm 1 - Metmast 2017	MetMast SCADA data in 2016. This dataset is a subset of the 2017 data in Dataset#1 and Dataset#2 combined.	CC-BY-SA			

14. Wind Farm 1 - Signals 2017	Wind turbine SCADA signals in 2017 for the 5 selected wind turbines. This dataset is a subset of the 2017 signals in Dataset #6 and Dataset#7 combined.			CC-BY-SA
15. Wind Farm 1 - Logs 2017	Operation log of five turbines. This dataset is a subset of the 2017 Log records in Dataset#4 and Dataset#5 combined.			CC-BY-SA
16. Wind Farm 1 Locations	This data-set presents the location of the wind turbines of wind farm 1 relative to the met mast. There are a total of 16 turbines and a single mast.			Restricted (NDA)

Citation	Full Reference	Year
Eriksson2020	Eriksson (2020) "Machine Learning for Predictive Maintenance on Wind Turbines– Using SCADA Data and the Apache Hadoop Ecosystem", Master's thesis, Department of Computer and Information Science, Linköping University, Linköping, Sweden.	2020
Menezes2020	Menezes, Mendes, Almeida, and Farinha (2020) "Wind Farm and Resource Datasets: A Comprehensive Survey and Overview", <i>Energies</i> , Vol. 13, pp. 4702.	2020
Chatterjee2021	Chatterjee and Dethlefs (2021) "Scientometric review of artificial intelligence for operations & maintenance of wind turbines: The past, present and future", <i>Renewable and Sustainable Energy Reviews</i> , Vol. 144, pp. 111051.	2021
Jia2021	Jia, Han, Li, Sang, and Zhang (2021) "Condition monitoring and performance forecasting of wind turbines based on denoising autoencoder and novel convolutional neural networks," Available at SSRN: https://ssrn.com/abstract=3892179 or http://dx.doi.org/10.2139/ssrn.3892179 .	2021