

IDEATION PHASE

LITERATURE SURVEY

DATE	05 September 2022
TEAM ID	PNT2022TMID10490
PROJECT NAME	Predicting the energy output of wind turbine based on weather condition

Literature Survey:

S.NO	TITLE	AUTHOR	YEAR	PROPOSED SYSTEM
1	A Multi-Step Prediction Method for Wind Power Based on Improved TCN to Correct Cumulative Error	Heifeng lu, Xun dou, Rong sun	2021	A Multi-step wind power prediction method was proposed by exploiting improved TCN to correct the cumulative error. First, multi-scale convolution (MSC) and self-attentiveness (SA) were adopted to optimize the problem that a single-scale convolution kernel of TCN is difficult to extract temporal and spatial features at different scales of the input sequence.
2	Remotely Sensed Winds and Wind Stresses for Marine Forecasting and Ocean Modeling	Mark A. Bourassa, Thomas Meissner, Ivana Cerovecki	2019	Remotely sensed surface winds (scalar winds and vector winds) with related material on surface stress, air-sea heat fluxes, currents, sea state, and precipitation.
3	Wind Generation Forecasting Methods and Proliferation of Artificial Neural Network	Muhammad Shahzad Nazir, Fahad Alturise, Sami Alshmrany	2020	Wind forecasting methods and the artificial neural network, The instrument used to measure wind assimilation is analyzed and discussed, accurately. The high forecasting accuracy could be achieved through proper handling and calibration of the wind-

				forecasting instrument and method.
4	Long term wind power forecast using adaptive wavelet neural network	Bhaskar-Kanna, Sn-Singh	2016	Mapping the NWP's wind speed and wind direction forecasts to wind power forecasts. Wind direction inherently being a circular variable, for better training and function approximation, a transformed version of wind direction variables are used as inputs.
5	Data mining for wind power forecasting	Lionel-Fugon, George-Kariniotakis, Jeremie-Juban	2008	Data Mining type of models for wind power forecasting. Models that are examined include neural networks, support vector machines, the recently proposed regression trees approach, and others. Evaluation results are presented for several real wind farms.

REFERENCES:

1. Luo H, Dou X, Sun R and Wu S (2021) A Multi-Step Prediction Method for Wind Power Based on Improved TCN to Correct Cumulative Error. *Front. Energy Res.* 9:723319. doi: 10.3389/fenrg.2021.723319.
2. Bourassa MA, Meissner T, Cerovecki I, Chang PS, Dong X, De Chiara G, Donlon C, Dukhovskoy DS, Elya J, Fore A, Fewings MR, Foster RC, Gille ST, Haus BK, Hristova-Veleva S, Holbach HM, Jelenak Z, Knaff JA, Kranz SA, Manaster A, Mazloff M, Mears C, Mouche A, Portabella M, Reul N, Ricciardulli L, Rodriguez E, Sampson C, Solis D, Stoffelen A, Stukel MR, Stiles B, Weissman D and Wentz F (2019) Remotely Sensed Winds and Wind Stresses for Marine Forecasting and Ocean Modeling. *Front. Mar. Sci.* 6:443. doi: 10.3389/fmars.2019.00443.
3. Nazir, Muhammad Shahzad, Fahad Alturise, Sami Alshmrany, Hafiz. M. J Nazir, Muhammad Bilal, Ahmad N. Abdalla, P. Sanjeevikumar, and Ziad M. Ali. 2020. "Wind Generation Forecasting Methods and Proliferation of Artificial Neural Network: A Review of Five Years Research Trend" *Sustainability* 12, no. 9: 3778. <https://doi.org/10.3390/su12093778>.
4. Bhaskar-Kanna, Sn-Singh, Long term wind power forecast using adaptive wavelet neural network(2016), doi.org/[10.1109/UPCON.2016.7894735](https://doi.org/10.1109/UPCON.2016.7894735).
5. Lionel-Fugon, George-Kariniotakis, Jeremie-Juban, Data mining and wind power prediction(2008), Accepted 1 February 2012, Available online 29 March 2012. <https://doi.org/10.1016/j.renene.2012.02.015>.