(51) International classification D06F0058200000, H04N0001000000

·NA

:NA

:NA

:NA

(86) International Application

(87) International Publication

(61) Patent of Addition to

Filing Date

Application Number

Filing Date (62) Divisional to Application

Filing Date

No

No

Number

(19) INDIA

(22) Date of filing of Application :02/09/2022

(43) Publication Date: 16/09/2022

(54) Title of the invention: AI & ML BASED SYSTEM FOR PREDICTION OF WIND POWER FOR MULTI-TURBINES

:C07K0007060000, A61P0019100000, G01N0033574000,

(71)Name of Applicant:

1)Dr. Santaji Krishna Shinde

Address of Applicant :Professor & Dean, Department of Computer Engineering, Vidya Pratishthan's Kamalnayan Bajaj Institute of Engineering and Technology, Baramati Dist. Pune, Maharashtra, India, Pin.413133 Pune ----

2)Mrs. Sarita Santaji Shinde

3)Dr. A. Sivakumar

4)Dr. Bibhuti Bhusan Pradhan

5)Dr. R. Vijaya Kumar Reddy

6)Dr. Catherine T. J.

7)Mr. V. Prabhu

Name of Applicant : NA Address of Applicant : NA

(72)Name of Inventor:

1)Dr. Santaji Krishna Shinde

Address of Applicant :Professor & Dean, Department of Computer Engineering, Vidya Pratishthan's Kamalnayan Bajaj Institute of Engineering and Technology, Baramati Dist. Pune, Maharashtra, India, Pin.413133 Pune

2)Mrs. Sarita Santaji Shinde

Address of Applicant : Assistant Professor, Department of General Science, Bharati Vidyapeeth's College of Engineering, Kolhapur, Maharashtra, India, Pin. 416013 Kolhapur ----

3)Dr. A. Sivakumar

Address of Applicant : Associate Professor, Department of Electrical and Electronics Engineering, Panimalar Engineering College, Nazarathpet, Poonamallee, Chennai, India, PIN: 600 123 Chennai -

4)Dr. Bibhuti Bhusan Pradhan

Address of Applicant :Associate Professor, Department of ECE, Malla Reddy Engineering College, Hyderabad, Pin Code: 500100 Hyderabad -

5)Dr. R. Vijaya Kumar Reddy

Address of Applicant : Associate Professor, Department of Computer Science and Engineering, Koneru Lakshmaiah Education Foundation, Vaddeswaram, AP, India Vaddeswaram --

6)Dr. Catherine T. J.

Address of Applicant :Associate Professor, Department of Electrical and Electronics Engineering, R.M.K. College of Engineering and Technology, RSM Nagar, Puduvoyal Gummidipoondi Taluk, Thiruvallur District, Tamilnadu, India PIN-601 206 Thiruvallur -

7)Mr. V. Prabhu

Address of Applicant : Assistant Professor, Department of Mechanical Engineering, Sri Sai Ram Engineering College, Chennai -600044 Chennai --

(57) Abstract:

The present invention relates to an AI & ML based system for prediction of wind power for multi-turbines. The methods from machine learning and artificial intelligence have been used to forecast wind energy. In terms of feature extraction and model generalisation, machine learning enhances more traditional machine learning techniques. When processing data with spatial structure, Convolutional Neural Network (CNN) performs exceptionally well, whereas among popular deep learning techniques, time series problems are where CNN excels. In order to prevent the instability of the power grid, each wind turbine in a wind farm needs to have its power distribution set up in accordance with its specific operating circumstances, necessitating power forecasting for each wind turbine. Accompanied Drawing [FIG. 1]



No. of Pages: 16 No. of Claims: 4