(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :03/09/2022

(21) Application No.202241050436 A

(43) Publication Date : 09/09/2022

(54) Title of the invention : A DEEP LEARNING AND IOT BASED WIND TURBINE CONDITION MONITORING & CLASSIFICATION

(51) International classification	:A61P0035000000, A61K0009500000, C07K0016280000, G06Q0020320000, A61K0009160000
(86) International Application No Filing Date	:PCT// :01/01/1900
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

(71)**Name of Applicant :**
  1)**Dr.T.Arun Srinivas**
    Address of Applicant :Assistant Professor, Department of Electrical and Electronics Engineering, JP College of Engineering, Agarakattu, Ayikudi Post - 627852, Thenkasi District, Tamil Nadu, India Tenkasi ----------- -----------
  2)**Mr. P. Siddharthan**
  3)**Dr. M D Mohan Gift**
  4)**Dr. V. Subrahmanyam**
  5)**Dr. M Jogendra Kumar**
  6)**Dr. Ishrat Meera Mirzana**
  7)**Mr. M. Sudhakar**
Name of Applicant : NA
Address of Applicant : NA
(72)**Name of Inventor :**
  1)**Dr.T.Arun Srinivas**
Address of Applicant :Assistant Professor, Department of Electrical and Electronics Engineering, JP College of Engineering, Agarakattu, Ayikudi Post - 627852, Thenkasi District, Tamil Nadu, India Tenkasi ----------- -----------
  2)**Mr. P. Siddharthan**
Address of Applicant :Assistant Professor, Department of Civil Engineering, Nehru Institute of Technology, Coimbatore -641 105, Tamilnadu, India Coimbatore ----------- -----------
  3)**Dr. M D Mohan Gift**
Address of Applicant :Professor, Department of Mechanical Engineering, Panimalar Engineering College, Chennai - 600123 Chennai ----------- -----------
  4)**Dr. V. Subrahmanyam**
Address of Applicant :Associate Professor, Department of Automobile Engineering, Godavari Institute of Engineering & Technology, Rajahmundry, AP, India 533297 Rajahmundry ----------- -----------
  5)**Dr. M Jogendra Kumar**
Address of Applicant :Associate Professor, Department of Computer Science and Engineering, KL University, Vaddeswaram, Guntur District, A.P., India, Pincode: 522 302 Vaddeswaram ----------- -----------
  6)**Dr. Ishrat Meera Mirzana**
Address of Applicant :Professor, Mechanical Engineering Department, Muffakham Jah College of Engineering and Technology, Mount Pleasant, 8-2-249 To 267, Road No. 3, Banjara Hills, Hyderabad - 500 034, Telangana, India Hyderabad ----------- -----------
  7)**Mr. M. Sudhakar**
Address of Applicant :Assistant Professor, Department of Mechanical Engineering, Sri Sai Ram Engineering College, West Tambaram, Chennai - 600044 Chennai ----------- -----------

(57) Abstract :
The present invention provides an IoT technique and classification of wind turbine condition monitoring (WTCM). The comprehensive development of a new intelligent and autonomous deep-learning-based detection and classification system for wind turbines in IoT condition monitoring networks is referred to as IoT-IDCS-CNN (IoT based Intrusion Detection and Classification System using Convolutional Neural Network). The proposed IoT-IDCS-CNN uses high-performance computing with dependable Compute Unified Device Architectures (CUDA)-based Nvidia GPUs and parallel processing with quick I9-core Intel CPUs (Graphical Processing Units). The specific elements that make up the system design are a feature engineering subsystem, a feature learning subsystem, and a traffic classification subsystem. Accompanied Drawing [FIG. 2]

No. of Pages : 18 No. of Claims : 5