

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202341061467 A

(19) INDIA

(22) Date of filing of Application :13/09/2023

(43) Publication Date : 06/10/2023

(54) Title of the invention : ARTIFICIAL INTELLIGENCE (AI) BASED PADDY LEAF DISEASE DETECTION SYSTEM (PLDDS)

(51) International classification :G06N0003080000, G06K0009620000, G06N0003040000, G06T0007000000, G16H0050200000

(86) International Application No :NA
 Filing Date :NA

(87) International Publication No :NA

(61) Patent of Addition to Application Number :NA
 Filing Date :NA

(62) Divisional to Application Number :NA
 Filing Date :NA

(71)Name of Applicant :
1)P. Deepan,St. Peter's Engineering College
 Address of Applicant :Associate Professor, Department of Computer Science & Engineering, St. Peter's Engineering College, Maisammaguda, Hyderabad – 500100, Telangana, India. Secunderabad -----
 --
2)Dr. B. Rajalingam, St. Martin's Engineering College
3)Mr. M. Nallusamy, Roever Engineering College
4)Dr. R. Kottaimalai, Kalasalingam Academy of Research and Education
5)Mr. N MahboobSubani, St. Martin's Engineering College
6)Mrs.K Bhargavi, St. Martin's Engineering College
7)Mr. C. Yosepu, St. Martin's Engineering College
8)Mr. K. Ganapathi Babu, St. Martin's Engineering College
9)Mr. M. Rajaram, St. Martin's Engineering College
10)Mr.P. Sudharsan, St. Martin's Engineering College
11)Dr. N. Sathesh, Jain (Deemed-to-be University)
12)Dr. R. Santhoshkumar, St. Martin's Engineering College
13)Ms.E. Soumya, St. Martin's Engineering College
 Name of Applicant : NA
 Address of Applicant : NA

(72)Name of Inventor :
1)P. Deepan,St. Peter's Engineering College
 Address of Applicant :Associate Professor, Department of Computer Science & Engineering, St. Peter's Engineering College, Maisammaguda, Hyderabad – 500100, Telangana, India. Secunderabad -----
 --
2)B. Rajalingam, St. Martin's Engineering College
 Address of Applicant :Associate Professor, Department of Computer Science and Engineering, St. Martin's Engineering College, Dhulapally, Secunderabad – 500100, Telangana, India. Secunderabad -----
3)M. Nallusamy, Roever Engineering College
 Address of Applicant :Assistant Professor, Department of CSE, Roever Engineering College, Elambalur Post, Perambalur - 621 220, Tamilnadu, India. Perambalur -----
4)R. Kottaimalai, Kalasalingam Academy of Research and Education
 Address of Applicant :Assistant Professor, Department of ECE, Kalasalingam Academy of Research and Education, Anand Nagar, Krishnankoil - 626126 Virudhunagar District, Tamilnadu, India. Krishnankoil -----

5)N MahboobSubani, St. Martin's Engineering College
 Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, St. Martin's Engineering College, Dhulapally, Secunderabad – 500100, Telangana, India. Secunderabad -----
6)K Bhargavi, St. Martin's Engineering College
 Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, St. Martin's Engineering College, Dhulapally, Secunderabad – 500100, Telangana, India. Secunderabad -----
 --
7)C. Yosepu, St. Martin's Engineering College
 Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, St. Martin's Engineering College, Dhulapally, Secunderabad – 500100, Telangana, India. Secunderabad -----
8)K. Ganapathi Babu, St. Martin's Engineering College
 Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, St. Martin's Engineering College, Dhulapally, Secunderabad – 500100, Telangana, India. Secunderabad -----
9)M. Rajaram, St. Martin's Engineering College
 Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, St. Martin's Engineering College, Dhulapally, Secunderabad – 500100, Telangana, India. Secunderabad -----
10)P. Sudharsan, St. Martin's Engineering College
 Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, St. Martin's Engineering College, Dhulapally, Secunderabad – 500100, Telangana, India. Secunderabad -----
11) N. Sathesh, Jain (Deemed-to-be University)
 Address of Applicant :Professor, Dept of Computer Science and Engineering (Artificial Intelligence), School of Engineering & Technology, Jain Global Campus, Jain (Deemed-to-be University), Kanakapura Road, Bangalore. Bangalore -----
12)R. Santhoshkumar, St. Martin's Engineering College
 Address of Applicant :Associate Professor, Department of Computer Science and Engineering, St. Martin's Engineering College, Dhulapally, Secunderabad – 500100, Telangana, India. Secunderabad -----
13)E. Soumya, St. Martin's Engineering College
 Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, St. Martin's Engineering College, Dhulapally, Secunderabad – 500100, Telangana, India. Secunderabad -----

(57) Abstract :
 There are a few requirements that need to be met before the processes and strategies that are productive and efficient can be implemented in order to increase the harvest output. The development of computer science has helped a number of different fields, one of which is the improvement of agricultural innovation. This breakthrough features three different machines, each of which is capable of learning on its own through the application of artificial intelligence and machine learning techniques. These methods achieve abnormally productive results for the recognition of illnesses that are embedded in the images of leaves, harvest fields, or seeds. This product offers an AI-based paddy leaf disease detection system, which is relevant to the context of this discussion. One of the artificial intelligence-based approaches, such as the Convolutional Neural Network (CNN) algorithm, has been incorporated into this innovation for the purpose of paddy leaf disease identification. The diagnosis of paddy plant disease has become a difficult problem in the agricultural industry. However, early detection of this illness can help farmers prevent significant financial losses caused by decreased crop yields. In the building of efficient models for paddy plant disease detection and classification procedures, it is possible to make use of some of the more recent developments in computer vision and Deep Learning. The Paddy Leaf Disease Detection System (PLDDS), which is based on artificial intelligence, has been proposed as a result of this purpose. The PLDDS system that has been proposed has as its primary objective the accurate identification and categorization of a wide variety of rice plant diseases.

No. of Pages : 8 No. of Claims : 4