# पेटेंट कार्यालय
# शासकीय जर्नल

# OFFICIAL JOURNAL
# OF
# THE PATENT OFFICE


| | | |
|---|---|---|
| निर्गमन सं. 32/2024 | शुक्रवार | दिनांक: 09/08/2024 |
| ISSUE NO. 32/2024 | FRIDAY | DATE: 09/08/2024 |


पेटेंट कार्यालय का एक प्रकाशन
PUBLICATION OF THE PATENT OFFICE

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :30/07/2024

(21) Application No.202441057895 A
(43) Publication Date : 09/08/2024

(54) Title of the invention : ENHANCED CROP OR WEED DETECTION USING CNN

(51) International classification :G06K0009620000, G06N0003080000, G06N0003040000, A01B0079000000, G06Q0050020000
(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)Malla Reddy Engineering College**
Address of Applicant :Malla Reddy Engineering College Dhulapally post via Kompally Maisammaguda Secunderabad -500100 Secunderabad ---------- ----------
**2)Dr.N.Manikanda Devarajan**
**3)Mr.Sukhavasi Suman**
**4)Dr.M.C.Rao**
**5)Dr.P.Jayaprada**
**6)Nandyala Siva Nagendra**
**7)Adabala Siva Sarapakara Rao**
**8)Dr.P.Sankara Rao**
**Name of Applicant : NA**
**Address of Applicant : NA**
(72)**Name of Inventor :**
**1)Malla Reddy Engineering College**
Address of Applicant :Malla Reddy Engineering College Dhulapally post via Kompally Maisammaguda Secunderabad -500100 Secunderabad ---------- ----------
**2)Dr.N.Manikanda Devarajan**
Address of Applicant :Professor Electronics and Communication Engineering Department, Malla Reddy Engineering College, Maisammaguda (Post. Via. Kompally), Mechal-Malkajgiri-500100. State:Telangana Email ID & Contact Number:nmdeva@gmail.com& 93457-99777 Secunderabad ---------- ----------
**3)Mr.Sukhavasi Suman**
Address of Applicant :Assistant Professor Electronics and Communication Engineering Department, Malla Reddy Engineering College, Maisammaguda (Post. Via. Kompally), Medchal-Malkajgiri-500100. State:Telangana Email ID & Contact Number:suman.sukhavasi@gmail.com & 9398444196 Secunderabad ---------- ----------
**4)Dr.M.C.Rao**
Address of Applicant :Professor Department of Physics Andhra Loyola College Vijayawada-520008 Andhra Pradesh Email ID & Contact Number: raomc72@gmail.com &9030005009 Vijayawada ---------- ----------
**5)Dr.P.Jayaprada**
Address of Applicant :Assistant Professor Department of Physics, Dhanekula Institute of Engineering and Technology Vijayawada-521139 State:Andhra Pradesh Email ID & Contact Number: jayapradap16@gmail.com & 8688710150 Vijayawada ---------- ----------
**6)Nandyala Siva Nagendra**
Address of Applicant :Assistant Professor Department of Electrical and Electronics Engineering Bonam Venkata Chalamayya Engineering College(A), Odalarevu, Amalapuram, Andhra Pradesh 533210 Email ID & Contact Number: nsnagendra.bvce@bvcgroup.in 9542484965 Amalapuram ---------- ----------
**7)Adabala Siva Sarapakara Rao**
Address of Applicant :Assistant Professor Department of Electrical and Electronics Engineering Bonam Venkata Chalamayya Engineering College(A), Odalarevu, Amalapuram, Andhra Pradesh 533210 Email ID & Contact Number: assrao.bvce@bvcgroup.in 9014067471 Amalapuram ---------- ----------
**8)Dr.P.Sankara Rao**
Address of Applicant :Associate Professor ECE Department Avanthi Institute of Engineering and Technology Cherukupalli(v) Bhogapuram (M) Vizianagaram Dist.-531162 Andhra Pradesh Email ID & Contact Number: sankar.ecehod@gmail.com& 9502995717 Vizianagaram ---------- ----------

(57) Abstract :
ABSTRACT Computer vision techniques have attracted a great interest in precision agriculture, recently. The common goal of all computer vision-based precision agriculture tasks is to detect the objects of interest (e.g., crop, weed) and discriminating them from the background. The Weeds are unwanted plants growing among crops competing for nutrients, water, and sunlight, causing losses to crop yields. Weed detection and mapping is critical for site-specific weed management to reduce the cost of labour and impact of herbicides. This paper presents an innovative method for crop or weed detection using Convolutional Neural Networks (CNNs). CNNs are employed due to their ability to learn hierarchical features from images, enabling accurate classification. The proposed approach demonstrates significant improvements in crop and weed classification accuracy compared to traditional methods. Experimental results showcase the effectiveness of CNNs in identifying crops and weeds in agricultural fields, highlighting the potential for enhancing precision agriculture practices.

No. of Pages : 5 No. of Claims : 1