

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411009760 A

(19) INDIA

(22) Date of filing of Application :13/02/2024

(43) Publication Date : 16/02/2024

(54) Title of the invention : SMARTWEEDX: CUTTING-EDGE WEED DETECTION AND ERADICATION SYSTEM USING IOT TECHNOLOGY AND AUTONOMOUS ROBOTIC ARMS

(51) International classification :A01M0021040000, G06Q0050020000, G01N0033000000, G06N0003040000, H04L0067120000

(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)MJP ROHILKHAND UNIVERSITY

Address of Applicant :MJP ROHILKHAND UNIVERSITY, BAREILLY, INDIA Bareilly -----

Name of Applicant : NA

Address of Applicant : NA

(72)Name of Inventor :

1)Prof. Vinay Rishiwal

Address of Applicant :Professor, Dept. of CSIT, MJPRU, Bareilly, India Bareilly -----

2)Dr. Brajesh Kumar

Address of Applicant :Associate Professor, Dept. of CSIT, MJPRU, Bareilly, India Bareilly -----

3)Dr. Preeti Yadav

Address of Applicant :Assistant Professor, Dept. of CSIT, MJPRU, Bareilly, India Bareilly -----

4)Dr. Akhtar Hussain

Address of Applicant :Associate Professor, Dept. of CSIT, MJPRU, Bareilly, India Bareilly -----

5)Dr. Iram Naim

Address of Applicant :Assistant Professor, Dept. of CSIT, MJPRU, Bareilly, India Bareilly -----

(57) Abstract :

SmartWeedX, is a proposed system that transforms weed management in agricultural settings. The system incorporates state-of-the-art technologies, including the Internet of Things (IoT) and autonomous robotic arms, to revolutionize the processes of weed detection and eradication. SmartWeedX utilizes advanced IOT sensors for accurate real-time identification and classification of weeds, providing precise data for targeted intervention. The autonomous robotic arms, equipped with adaptive algorithms, navigate the agricultural landscape, selectively eliminating identified weeds while minimizing impact on crops. This ground-breaking solution not only enhances weed control efficiency but also prioritizes sustainability by reducing reliance on traditional herbicides. SmartWeedX represents a significant leap forward in precision agriculture, offering a scalable and environmentally friendly approach to weed management for optimized crop yields and environmental conservation.

No. of Pages : 12 No. of Claims : 4