(12) PATENT APPLICATION PUBLICATION   (21) Application No.202241045048 A

(19) INDIA

(22) Date of filing of Application :06/08/2022   (43) Publication Date : 12/08/2022

(54) Title of the invention : SMART AUTONOMOUS DRONE FOR MONITORING OF AN MODERN AGRICULTURAL FIELD

(51) International classification	:B64C0039020000, A01C0021000000, B64D0001160000, A01B0079000000, A01B0079020000
(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. P. Rajasekar**
    Address of Applicant :Assistant Professor, Data Science and Business Systems, School of Computing, SRM Institute of Science and Technology, Chengalpattu District, PIN-603203 Chengalpattu ----------- ------------
  2)**Dr. Alok Singh**
  3)**Dr. N. Nagarajan**
  4)**Dr. K. Karthikeyan**
  5)**Dr. Pushyamitra Mishra**
  6)**Dr. Amar B. Deshmukh**
Name of Applicant : NA
Address of Applicant : NA
(72)**Name of Inventor :**
  1)**Dr. P. Rajasekar**
Address of Applicant :Assistant Professor, Data Science and Business Systems, School of Computing, SRM Institute of Science and Technology, Chengalpattu District, PIN-603203 Chengalpattu ----------- ------------
  2)**Dr. Alok Singh**
Address of Applicant :Mechanical Engineering Department, M.A.N.I.T., Bhopal-462003 (MP) Bhopal ----------- -----------
  3)**Dr. N. Nagarajan**
Address of Applicant :Associate Professor, Dept. of Civil Engineering, Faculty of Engg. & Tech. Annamalai University Annamalai Nagar – 608 002 Annamalai Nagar ----------- -----------
  4)**Dr. K. Karthikeyan**
Address of Applicant :Associate Professor, Dept. of Civil Engineering, Faculty of Engg. & Tech. Annamalai University Annamalai Nagar – 608 002 Annamalai Nagar ----------- -----------
  5)**Dr. Pushyamitra Mishra**
Address of Applicant :Mechanical Engineering Department, M.A.N.I.T., Bhopal-462003 (MP) Bhopal ----------- -----------
  6)**Dr. Amar B. Deshmukh**
Address of Applicant :Flat No. A-307, Sarthak Beaulieu co-operative housing society ltd., Pisoli-kondhwa road, wagh nagar, pisoli, pune-411060 pune ----------- -----------

(57) Abstract :
Powerful ground equipment or aeroplanes that weigh several tons and can treat consistently tens of hectares per hour are now being used in modern farming. This method has been in use for the last few decades. The use of compact, nimble, lightweight, and energy-efficient automated robotic equipment that flies to accomplish the same task as traditional farming equipment is possible with automated farming. Automated farming is even able to farm on a plant-by-plant basis, which paves the door for new methods of farming. The term aerial farm robots refers to unmanned aerial vehicles (UAVs) that are used in automated farming. These UAVs are outfitted with reservoirs and tools that can be detached from the aircraft. Farming that is automated makes use of high-precision GPS and other technologies for exact location and vision in order to carry out crop dusting, planting, fertilizing, and other field-related farming or husbandry chores in an autonomous and accurate manner. The control, refill, recharge, and communication subsystems of the aerial farm robots are a component of the overall automated farming system, and they are able to do the majority of the husbandry activities on a farm by themselves. This makes the automated farming system a valuable asset.

No. of Pages : 22 No. of Claims : 5