(12) PATENT APPLICATION PUBLICATION

:PCT//

: NA

:NA

:NA

:01/01/1900

(19) INDIA

(22) Date of filing of Application :01/09/2021

2)Dr. Govinda Rajulu.G

Address of Applicant : NA

1)Dr. Govinda Rajulu.G

Telangana – India ----- -----

2)NARAYANANAN MADESHAN

Address of Applicant :Dr. Govinda Rajulu.G Professor

Engineering College Dhulapally, Secunderabad – 500100

Department of Computer Science and Engineering St. Martin's

Address of Applicant :Dr.M.Narayanan Plot No: 3-167/B-10/B, G Floor, Sri Ram Nagar, Sri Krishna Nagar Road, Suraram Village, Suraram, Outubullapur, IDA Jeedimetla, Medchal-Malkajgiri District, Hyderabad, Telangana Pin: 500055 ------

Name of Applicant : NA

(72)Name of Inventor :

## (54) Title of the invention - Tomato Crop Smart Irrigation Control and Harvesting System using IoT Intelligence Systems

-	(57)	Abstract	
	SI	AUSUACE	•

Application No

(87) International

Publication No

Filing Date

Filing Date

Application Number

Filing Date

(62) Divisional to

(61) Patent of Addition:NA

to Application Number :NA

Tomato horticulture [101] is one of the utmost profitable agriculture businesses. Tomato agribusiness is possible both in old-style farming and greenhouse farming. Seeds of tomatoes are meant for tomato farming. Some of these tomato varieties available in India are Rajni's early growing type. Rounded, red-colored fruits. Sioux Well-suited for long-distance transportation. The normal Disease that the tomato crop can be affected is Alternaria Blight, leaf curl complex, damping-off, powdery mildew, and bacterial leaf spot. The Tomato crop can be attacked by various kinds of pests they can be Whiteflies, Root-knot Nematodes, Leaf Miner, spider mites. The Ripe fruit identification is based on the colour of the fruit-based on Green, Red, Dark Reddish the fruit will be plucked from the plant. The Drone [107] will consist of a sensor that captures the images of the plant and sends to the IoT Setup [108] and cloud [109] via Wi-Fi the Agronomist will come to know through the usage of Mobile Device [110] he can take necessary actions by view the information available to him, the various sensor that used in crop management system are IR Senso [104] for the plant growth, Pest Identification is as follows Low Power Camera sensor [203] for detection of Pest, High-power thermal sensors [202] are used detecting the insects, Fluorescence sensor [204], is used in presence of pathogen Acoustic sensors [105] used for the presence of rodent and Disease Identification Sensor are Temperature sensor (DHT11) [106] and fruit identification is done by TCS3200 [201] color sensor. Machine Learning is used to Predict Yield duration, which season is best for the crop, frequently disease that occurs in the crop, types of pesticides used in spraying, quantity of manure to be used for getting a good yield, when the water to be irrigated, and how many days and soil types prediction and next what crop can be cultivated in that land can be given information based on the analysis of the data to the Agronomist using Multiple Linear Regression modules Figure related to the abstract is Fig. 1.1

No. of Pages : 27 No. of Claims : 7