(22) Date of filing of Application :22/11/2021 (43) Publication Date : 03/12/2021

(54) Title of the invention: AUTOMATED AGRICULTURE ASSISTANT ROVER

(51) International classification	:H04M0001725000, G06Q0050020000, A01G0025160000, A61B0005080000,	N N N
Classification	H04L0001180000	(7
(86) International Application No Filing Date	:NA :NA	A
(87) International Publication No (61) Patent of	: NA	G 60
Addition to	:NA	A
Application Number Filing Date	:NA	G 60
(62) Divisional to Application Number Filing Date	:NA :NA	A G

(71)Name of Applicant:

1)R.M.D. Engineering College

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Tiruvallur, Tamil Nadu 601 206, India ------

Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor :

1)Dr.A.Chilambuchelvan

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Tiruvallur, Tamil Nadu 601 206, India -------

2)Padmavathi.N

3)Dinesh Kumar T

4)Avinash R

(57) Abstract:

An automated agricultural assistant rover to assist farmers with agriculture while conserving valuable resources is described in the present invention. An automated rover powered with an intelligent algorithm is designed. As illustrated in Fig. 1, receiving values from multiple sensors (102) placed in the field (101), the rover will automatically reach the specific area in the field (101) that needs attention. This rover can be used for all agricultural activities like irrigation, fertilization etc., while conserving the resources. A mobile app (106) is provided for the user to monitor the parameters of their field (101) from a remote place. (Ref. Fig. 1)

(51) International

(86) International

(87) International

Publication No

Filing Date

Filing Date

Application Number

Filing Date

(62) Divisional to

(61) Patent of Addition:NA

to Application Number: NA

Application No

classification

(22) Date of filing of Application :22/12/2021

(43) Publication Date: 31/12/2021

(54) Title of the invention: Irrigation Management System and Leaf Disease Detection using IoT

:G06Q0050020000, A01G0025160000,

G06K0009460000, A01G0025000000,

G06K0009000000

:PCT//

: NA

:NA

:NA

:01/01/1900

(71)Name of Applicant:

1)R.M.D. Engineering College

Address of Applicant: R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. -----

Name of Applicant: NA Address of Applicant : NA (72)Name of Inventor:

1)K.Balasaranya

Address of Applicant : R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. -----

2)Dr.P.Ezhumalai

Address of Applicant: R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. -----

3)Dr.P.Shobha Rani

Address of Applicant : R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. -----

4)J.Geetha Priya

Address of Applicant : R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. -----

(57) Abstract:

The main objective of this work is to reduce the manual work of the farmer by using smart irrigation to the crops in the fields. To reduce the manual work, we are using the automatic water supply to the crops by monitoring the moisture level and rain using sensors (101, 102). Besides that, it monitors the healthiness of the crop by using an image processing system. The present invention can be developed by the real time monitoring of healthiness of the crops in the agriculture field and updates the status to the cloud server and also providing necessary water to crop at required time.(Refer Fig. 1)

(51) International

(86) International

(87) International

Publication No

Filing Date

Filing Date

Application Number

Filing Date

(62) Divisional to

(61) Patent of Addition :NA

to Application Number :NA

Application No

classification

(22) Date of filing of Application :22/12/2021

(43) Publication Date: 31/12/2021

(54) Title of the invention : Solar Atmospheric Water Generator

C02F0001040000

:PCT//

: NA

:NA

:NA

:01/01/1900

:E03B0003280000, B01D0005000000,

F24F0005000000, C02F0001440000,

(71)Name of Applicant:

1)R.M.D. Engineering College

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil

Nadu, India – 601206. -----

Name of Applicant: NA Address of Applicant: NA (72)Name of Inventor: 1)Dr.V.Tamil Selvi

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu,

India – 601206. -----

2)Dr.U.Nagabalan Address of Applicant: R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu,

India – 601206. -----

3)J.C.Vinitha

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu,

India – 601206. -----

4)T.ShivaramAddress of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu,

India – 601206. -----

5)M.Agnieswar

Address of Applicant: R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206.

(57) Abstract:

The objective of the present invention is to design a system to convert the air into water to provide people with pure water and to minimize the dependency of water table. The solar atmospheric water generator is used to convert atmospheric air into water with high relative humidity. This is done by decreasing the temperature of air till dew point temperature and converts atmospheric moisture directly into clean drinking water form by condensing the latent heat of water vapor into water droplets. (Refer Fig. 1)

(19) INDIA

(51) International

(86) International

(87) International

Publication No

Filing Date

Filing Date

Application Number

Filing Date

(62) Divisional to

(61) Patent of Addition:NA

to Application Number :NA

Application No

classification

(22) Date of filing of Application :22/12/2021

(21) Application No.202141059877 A

(43) Publication Date: 31/12/2021

(54) Title of the invention: Covid Protection Device

:A61Q0019100000, A61K0008970000,

G16H0040630000, G06F0003010000,

G06K0007100000

:PCT//

: NA

:NA

:NA

:01/01/1900

(71)Name of Applicant:

1)R.M.D. Engineering College

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

Name of Applicant: NA Address of Applicant: NA (72)Name of Inventor: 1)Dr.K.Helenprabha

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

2)Karhika G

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

3)Hemalatha R

Address of Applicant: R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206.

4)Emmidi Madhuri

Address of Applicant: R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206.

5)Dharshini A G

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

6)Mahalakshmi C

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

(57) Abstract:

An Automatic Hand Sanitizer with Temperature Indicator and RFID reader is a subtle approach to the Covid19 Outbreak. This device can operate without human control, which leads to Germ Free Environment. The Connectivity components detect the Temperature and provide brief information through RFID. (Refer Fig. 1)

(51) International

(86) International

Filing Date (87) International

Filing Date (62) Divisional to

Application Number

Filing Date

(61) Patent of Addition:NA

to Application Number :NA

Application No

Publication No

classification

(22) Date of filing of Application: 22/12/2021

(43) Publication Date: 31/12/2021

(54) Title of the invention: Soil Data Collection using IoT and Cloud

:H04L0029080000, G06Q0010100000,

A01G0025160000, G01N0033240000,

G06Q0050020000

:PCT//

: NA

:NA

:NA

:01/01/1900

(71)Name of Applicant:

1)R.M.D. Engineering College

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

Name of Applicant: NA Address of Applicant: NA (72)Name of Inventor: 1)Dr.D.Prayeena

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu,

India – 601206. -----

2)Dr.B.Kalpana

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

3)Dr.K.Balasubadra

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

4)Dr.R.Jothilakshmi

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

5)N.Arockia Rosy

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

6)R.Nikitha

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

7)G. Janani

Address of Applicant: R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206.

8)N.Abirami

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

(57) Abstract:

The objective of the present invention is to design and develop a system for collecting soil data for research and application using IoT and cloud (104). All the additional integrations (101) are combined and connected with the cloud (104). The data received from the temperature and moisture sensor (105), can be sent to the cloud (104) and to the smart phone via notification (109). The cloud (104) utilizes and contributes the data to its contributing devices (103). (Refer Fig. 1)

(19) INDIA

(51) International

(86) International

Filing Date (87) International

Filing Date (62) Divisional to

Application Number

Filing Date

(61) Patent of Addition :NA

to Application Number :NA

Application No

Publication No

classification

(22) Date of filing of Application: 22/12/2021

(21) Application No.202141059879 A

(43) Publication Date: 31/12/2021

(54) Title of the invention: Hand Gesture Recognition

:G06F0003160000, G10L0015180000,

G10L0015220000, G10L0015260000,

G10L0015080000

:PCT//

: NA

:NA

:NA

:01/01/1900

(71)Name of Applicant:

1)R.M.D. Engineering College

Address of Applicant: R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

Name of Applicant: NA Address of Applicant: NA (72)Name of Inventor: 1)Dr.P.M.Joe Prathap

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

2)Dr.R.Jothilakshmi

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

3)Dr.D.Praveena

Address of Applicant: R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206.

4)Dr.B.Kalpana

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

5)N.Arockia Rosy

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

6)G.Janani

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

7)R.Nikitha

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206.

8)N.Abirami

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

(57) Abstract:

The objective of the present invention is to design and develop a system that incorporate hands-on recognition and dual-channel communication. In an aspect of the present invention, android application for voice input and word recognition using the Google Speech Recognition API and keywords are converted into keywords and then the associated images of signs are displayed to the deaf and the dumb. (Refer Fig. 1)

(19) INDIA

(51) International

(86) International

(87) International

Publication No

Filing Date

Filing Date

Application Number

Filing Date

(62) Divisional to

(61) Patent of Addition:NA

to Application Number :NA

Application No

classification

(22) Date of filing of Application :02/12/2021

(21) Application No.202141055986 A

(43) Publication Date: 24/12/2021

(54) Title of the invention: Anti-Theft Luggage Tracker

:A45C0005140000, B60R0025102000,

B62H0005200000, G08B0013140000,

A61K0036730000

:PCT//

: NA

:NA

:NA

:01/01/1900

(71)Name of Applicant:

1)R.M.D. Engineering College

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

Name of Applicant: NA Address of Applicant: NA (72)Name of Inventor: 1)Chilambuchelvan

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

2)Vini Antony

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

3)G.Karthika

Address of Applicant: R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206.

4)Sathish Kumar

Address of Applicant: R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206.

5)L.S. Rajesh

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

6)Thirumoorthy

Address of Applicant: R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206.

7)Sanjay

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

(57) Abstract:

The present invention relates to a system of anti-theft luggage tracker with the following features: a Raspberry pi controller (200), a power unit supply (201), magnetic reed switch (204), inbuilt-BLE module (205), a servo motor (208), a GPS module (208), an USB camera (209) and a Firebase cloud database (206) which connects to the android application (207) installed in the owner's mobile phone. When the luggage is missing/ mislaid, the luggage location can be obtained and viewed via the mobile application by using the GPS Module and the camera present in the luggage (105). When the magnetic reed circuit loop is broken (104), the face recognition module is switched on (100). If the owner is recognised (109), the raspberry pi controller initiates the opening of the luggage using the servomotor (106). The luggage can be converted into a personal computer by attaching the requisite peripherals to the microcontroller ports. Fig. 1

(19) INDIA

(51) International

(86) International

(87) International

Publication No

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Filing Date

Application Number

Filing Date

(62) Divisional to

(61) Patent of Addition :NA

to Application Number :NA

Application No

classification

(22) Date of filing of Application :02/12/2021

(21) Application No.202141055987 A

(43) Publication Date: 24/12/2021

(54) Title of the invention: Solar Power Bank

:H02J0007000000, H02J0007350000,

H02S0010120000, G11B0027000000,

H02J0007020000

:PCT//

: NA

:NA

:NA

:01/01/1900

(71)Name of Applicant:

1)R.M.D. Engineering College

Address of Applicant : R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. -----

Name of Applicant: NA Address of Applicant : NA (72)Name of Inventor: 1)Dr.Amudha.G

Address of Applicant :Department of Computer Science and Business Systems, R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu,

India – 601206. -----

2)Dr.G.Gavathiri Devi

Address of Applicant: Department of Computer Science and Business Systems, R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. -----

3)Gowtham H

Address of Applicant: Department of Computer Science and Business Systems, R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. -----

4)Harul Ganesh S B

Address of Applicant: Department of Computer Science and Business Systems, R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. -----

5).Jashvanth S R

Address of Applicant :Department of Computer Science and Business Systems, R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. -----

6)Tharun Kumar K

Address of Applicant :Department of Computer Science and Business Systems, R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. -----

(57) Abstract:

The objective of the present invention is to design and develop an advanced system that utilizes the renewable sources of energy. The solar power bank can be carried to whatever place you want to take and can be charged whatever electronic devices you want as it has the capability of charging all the electronic devices like electric lamp, smart phones, trimmers, ear phones. (Refer Fig. 1)

(21) Application No.202141055988 A

(19) INDIA

(51) International

(86) International

(87) International

Publication No

Filing Date

Filing Date

Application Number

Filing Date

(62) Divisional to

(61) Patent of Addition:NA

to Application Number :NA

Application No

classification

(22) Date of filing of Application :02/12/2021

(43) Publication Date: 24/12/2021

(54) Title of the invention: Smart Luggage and Theft Detection

A45C0015000000

:PCT//

: NA

:NA

:NA

:01/01/1900

:A45C0005030000, A45C0013180000,

A45C0005040000, G08B0021240000,

(71)Name of Applicant:

1)R.M.D. Engineering College

Address of Applicant: R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. -----

Name of Applicant: NA Address of Applicant : NA (72)Name of Inventor:

1)Dr.J.Javaudhava

Address of Applicant : R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. -----

2)J.Sumithra

Address of Applicant: R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. -----

3)Sriram E A

Address of Applicant : R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. -----

4)Sai Santhosh C S

Address of Applicant : R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. -----

5)Sai Raswanth U M

Address of Applicant : R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. -----

(57) Abstract:

The objective of the present invention is to design and develop a smart luggage follows the user wherever the user goes hence the user's burden of carrying the luggage is reduced and the user can focus on enjoying his travel with comfort. If the luggage gets stolen or lost, it still can be found with the help of GPS Module (103) present inside the smart luggage. The GPS (103) it sends in real time latitude and longitude values of the luggage, so that it can be easily found when lost. (Refer Fig. 1)

(22) Date of filing of Application :02/12/2021 (43) Publication Date : 24/12/2021

(54) Title of the invention: Embedded Based Covid 19 Detection System Using Machine Learning

(51) International classification

:G06N0020000000, G06K0009000000, G06K0009620000, A61B0005020500,

G05D0001000000

(86) International Application No Filing Date

:PCT// :01/01/1900

(87) International : NA Publication No (61) Patent of Addition :NA

to Application Number :NA Filing Date

(62) Divisional to
Application Number
Filing Date
:NA

(71)Name of Applicant:

1)R.M.D. Engineering College

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

Name of Applicant: NA Address of Applicant: NA (72)Name of Inventor:

1)Dr.R.Priya

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

2)Dr.G.Amudha

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

3)P. Kamalarajan

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

(57) Abstract:

The objective of the present invention is to design and develop an advanced system to detect COVID-19 using machine learning technique. An efficient method on patient samples by using machine learning and embedded sensors. The training samples were trained by using machine learning algorithm and by utilizing preparing models and datasets the system can identify the infected patients. The patient's parameters are acquired through several types of sensors, by using the sensor values the training sets create an algorithm to detect the corona infection status on patients. (Refer Fig. 1)

(51) International

(86) International

(87) International

Publication No

Filing Date

Filing Date

Application Number

Filing Date

(62) Divisional to

(61) Patent of Addition:NA

to Application Number :NA

Application No

classification

(22) Date of filing of Application :02/12/2021

(43) Publication Date: 24/12/2021

(54) Title of the invention: VIRTUAL TRIAL ROOM FOR READY MADE CLOTHING SHOWROOMS

:G06T0019000000, G06Q0030060000,

H04W0004500000, G06F0009445000,

C07H0015040000

:PCT//

: NA

:NA

:NA

:01/01/1900

(71)Name of Applicant:

1)R.M.D. Engineering College

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil

Nadu, India - 601206. -----

Name of Applicant: NA Address of Applicant: NA (72)Name of Inventor: 1)Dr.K.Helen Prabha

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu,

India – 601206. -----

2)B.Jai Ganesh

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

3)Ramyalakshmi R

Address of Applicant: R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu,

India – 601206. -----

4)Renuka Devi K

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

5)Sadhurva P

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

(57) Abstract:

The present invention relates to an android mobile application that supports virtual trial room for readymade clothes with its size, colour and price. This application is based on augmented reality that develops the application in which 3D displays to overlay a synthesized world on top of the natural world, and mobile computing, in which increasingly small and inexpensive computing devices, linked by wireless networks, allow us to use computing facilities while roaming the real world. It comprises four modules in a two-level menu system within the AR window. Through the menu, the user could access the entire interaction designed for AR ecommerce.

(22) Date of filing of Application :02/12/2021

(43) Publication Date: 24/12/2021

(54) Title of the invention: Nanobubble Generator for Cleaning Root Canal of Tooth and Dental Apparatus

(51) International classification

 $: A61C0005400000, \ A61C0017020000, \\ B01F0003040000, \ A61C0017200000, \\$

(86) International Application No :PCT//

Application No
Filing Date
(87) International

Publication No
(61) Patent of Addition
to Application Number: NA
:NA

Filing Date
(62) Divisional to
Application Number
Filing Date

NA
:NA

(71)Name of Applicant:

1)R.M.D. Engineering College

Address of Applicant: R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor :

1)Dr. R. Priya

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

2)Dr. K. S. Radha

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

3)Dr. S. Ramesh

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

(57) Abstract:

The objective of the present invention is to design and develop a generator of nanobubbles that can spray bubbles in nanoscale to irrigate a tooth canal and dental appliances. The nanobubble generator is designed for irrigating a root canal of a tooth which comprises of a generator, configured to generate nanometric bubbles within a fluid. A bubble nozzle connected to the generator, configured to move the fluid containing bubbles to apply on the infected area. (Refer Fig. 1)

(22) Date of filing of Application :02/12/2021 (43) I

(43) Publication Date: 24/12/2021

(54) Title of the invention: NEEM LEAF DISEASE RECOGNITION SYSTEM

(51) International classification

:G06N0003040000, A01N0065260000, A01N0065000000, G06N0005040000,

G06K0009620000

(86) International Application No Filing Date :PCT// :01/01/1900

(87) International : NA
Publication No
(61) Patent of Addition
to Application Number :NA
:NA

Filing Date
(62) Divisional to
Application Number
Filing Date

NA
:NA

(71)Name of Applicant:

1)R.M.D. Engineering College

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

Name of Applicant: NA
Address of Applicant: NA
(72)Name of Inventor:
1)Dr.K.K.Thyagharajan

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

2)I.Kiruba Raji

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

3)G.Nirmala

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

(57) Abstract:

The present invention relates to a system that uses an optimized version of the fuzzy spiking neuron model to detect the symptoms of neem leaf diseases. The diseases are detected using a two-oscillator spiking model. The model is optimized using Mamdani fuzzy inference system. This system consists of three stages, namely pre-processing, features extraction, and classification. In pre-processing stage, the fuzzy c-means algorithms segment the foreground from the background by considering the membership value of the individual pixels. OFSNM is used to extract the important features of neem leaf. It can distinguish the diseases of the neem plant.by optimizing the parameters (decay constants, threshold value) based on entropy of an image using a fuzzy crisp set of Mamdani Fuzzy inference System. At last, the ANFIS classifier diagnoses the diseases and it produces the accuracy of 92.18%. Fig. 1

(22) Date of filing of Application: 18/11/2021 (43) Publication Date: 03/12/2021

(54) Title of the invention: A DEVICE FOR SAFETY OF THE WOMEN

:H04W0004900000, A61B0005024000, (51) International H04M0011040000, G08B0025010000, classification G01S0019170000

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

(87) International : NA **Publication No**

(61) Patent of Addition to

:NA **Application Number** :NA Filing Date

(62) Divisional to :NA **Application Number** :NA

Filing Date

(71)Name of Applicant:

1)R.M.D. Engineering College

Address of Applicant : R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Tiruvallur, Tamil Nadu 601 206, India -----

Name of Applicant: NA Address of Applicant : NA (72)Name of Inventor:

1)Dr S. Srinivasan

Address of Applicant : R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Tiruvallur, Tamil Nadu 601 206, India -----

2)M.Vedaraj

Address of Applicant: R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Tiruvallur, Tamil Nadu 601 206. India -----

3)Dr. A.Gnanasekar

Address of Applicant : R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Tiruvallur, Tamil Nadu 601 206, India -----

4)D.Jayakumar

Address of Applicant : R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Tiruvallur, Tamil Nadu 601 206, India -----

5)Shailendhra Venka Ch

Address of Applicant : R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Tiruvallur, Tamil Nadu 601 206, India -----

(57) Abstract:

The present invention relates to a system to provide safety by means of communication and providing location details to the emergency services for immediate rescue operations. The present embodiment of our invention consists of a microcontroller (107), pulse rate sensor (102), flex sensor (104), MEMS accelerometer (106), LCD display (111), GSM (108) and GPS (109) module, and buzzer ()110. An embodiment of our invention is a smart wearable device that can be affixed to the mobile phones (112), smart watches, or even automobiles. The microcontroller receives the command and takes the current latitude and longitude values of the victim location with the help of GPS module. The GSM module calls the family member and police station and sends the distress SMS, sends the current location and other data at every ten seconds along with the pulse reading to the registered mobile number of the family member and police. (FIG. 1)

(22) Date of filing of Application: 18/11/2021 (43) Publication Date: 03/12/2021

(54) Title of the invention: GESTURE MONITORING SYSTEM WITH SMART HAND GLOVE

:H04L0029080000, G08B0021040000, (51) International G06K0009000000, G03G0015080000,

classification G08B0025010000

: NA

(86) International :NA Application No :NA

Filing Date (87) International

Publication No (61) Patent of Addition:NA to Application Number :NA

Filing Date

(62) Divisional to :NA **Application Number** :NA

Filing Date

(71)Name of Applicant:

1)R.M.D. Engineering College

Address of Applicant : R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Tiruvallur, Tamil Nadu, 601 206, India -----

Name of Applicant: NA Address of Applicant: NA (72)Name of Inventor:

1)M.Vedarai

Address of Applicant : R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Tiruvallur, Tamil Nadu, 601 206, India -----

2)Dr S.Srinivasan

Address of Applicant: R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Tiruvallur, Tamil Nadu, 601 206. India -----

3)D.Javakumar

Address of Applicant : R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Tiruvallur, Tamil Nadu, 601 206, India -----

4)Jemima P

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Tiruvallur, Tamil Nadu, 601 206, India -----

5)Hemalatha S

Address of Applicant : R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Tiruvallur, Tamil Nadu, 601 206, India -----

(57) Abstract:

The present invention relates to developing a gesture monitoring system that consists of Flex sensor and an android application. Flex sensor is responsible for sensing the movement of the disabled and old age people and on the other hand the mobile application receives every motion that occurs. Flex sensors are combined in order to form a hand glove like structure that has to be worn by the disabled and old age people. All the sensors are integrated with distinct functionalities that respectively fit on the person's finger. Different finger movement will send different kind of messages to the application indicating the needs of the person. When the person folds his all fingers then an emergency message will be sent to the application indicating about the person is in need of assistance or in some trouble. Information generated by the sensor is first transferred to the cloud and then through SMS.

(22) Date of filing of Application :09/11/2021

(43) Publication Date: 26/11/2021

(54) Title of the invention: AGRICULTURE DRONE SURVEILLANCE SYSTEM

(51) International :B64C0039020000, B64D0027240000, A01B0073060000, B64C0027080000,

classification B64C0027120000

(86) International Application No Filing Date :NA

(87) International
Publication No : NA

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

(62) Divisional to Application Number Filing Date :NA (71)Name of Applicant:

1)R.M.D. Engineering College

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Tiruvallur, Tamil Nadu 601 206, India ------

Nadu 601 206, India ------Name of Applicant : NA

Address of Applicant: NA (72)Name of Inventor: 1)Dr.G.Nalinashini

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Tiruvallur, Tamil Nadu 601 206, India -------

2)Aadalarasu G

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Tiruvallur, Tamil Nadu 601 206. India ------

3)Harish U

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Tiruvallur, Tamil Nadu 601 206, India -------

4)Pavan Kumar A

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Tiruvallur, Tamil Nadu 601 206, India -------

5)Pavithran R

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Tiruvallur, Tamil Nadu 601 206. India ------

(57) Abstract:

The present invention relates to a drone surveillance to prevent agriculture trespassing using technology solutions for enforcing and precautions and provide advance solutions to ensure agricultural land safety from the trespassers. Electronic Speed Controller and BLDC Motors (113) are fixed on the frame firmly, each of the four motors are connected with their respective ESCs the ESCs are connected to the central Pix Hawk controller (100). The drone is armed with an anaesthetic water pellet gun and operated. This system helps in the area of surveillance of agricultural land and Prevention of spoiling the agriculture from trespassers. (Refer Fig. 1)

(22) Date of filing of Application :28/12/2021

(43) Publication Date: 04/02/2022

(54) Title of the invention: SMART SHOPPING CART WITH AUTOMATED BILLING SYSTEM

	G0.50.00200.40000. VV0.47.6004.7000000	
(51) International classification	:G06Q0030040000, H04M0015000000, G06Q0020140000, G06Q0020100000, G06Q0030060000	
(86) International Application No Filing Date	:NA	
	:NA	
(87) International	: NA	
Publication No (61) Patent of		
Addition to	:NA	
Application Number	:NA	
Filing Date		
(62) Divisional to	:NA	
Application Number Filing Date	:NA	

(71)Name of Applicant:

1)R.M.D. Engineering College

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206.

Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor :

1)Hemalatha R

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

2)Dr Ilamathi K

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206.

3)Dr Bennila Thangammal C

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, ndia – 601206. ------

4)Nathiya Devi K

Address of Applicant: R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206.

5)Santhoshini P

Address of Applicant: R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206.

(57) Abstract:

The objective of the present invention is to design and develop an automated system for easy shopping and billing. The smart trolley which integrates with RFID reader (108), Barcode reader (102), Arduino (107) and LCD display (109) and IR sensors (103, 104, 105) with it. The scanned items by the customer will automatically add into the billing list and generate bill for items purchased. The user can view the generated bill using LCD display (109) also, we can pay the bill using RFID technology (108). These modules are integrated, programmed and tested to satisfy the functionality. (Refer Fig. 1)

(22) Date of filing of Application :28/12/2021 (43) Publication Date : 04/02/2022

(54) Title of the invention: NEEDLELESS GLUCOSE MONITORING WITH IOT AND MACHINE LEARNING

(51) International classification	:A61B0005145000, A61B0005000000, A61B0005024000, G06N0020000000, G01N0021310000	(71)Name of Applicant: 1)R.M.D. Engineering College Address of Applicant: R.M.D. Engineering College, RSM
(86) International Application No Filing Date	:NA :NA	Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206
(87) International Publication No	: NA	Address of Applicant: NA (72)Name of Inventor:
(61) Patent of Addition to Application Number Filing Date	on :NA er:NA	1)Srilakshmi CH Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu,
(62) Divisional to Application Number Filing Date	:NA :NA	India – 601206

(57) Abstract:

The objective of the present invention is to design and develop a needleless glucose monitoring with IoT and machine learning. The transmitted signal is detected by the photodetector and the output current of the photo detector is converted into voltage signal and then it is filtered and amplified. This amplified signal is fed into arduino microcontroller (102), the inbuilt ADC block is used for converting the received analog signal to digital form. This digital signal is processed by using second order regression analysis to predict the blood glucose value and the blood glucose value is displayed on the LCD display (104). (Refer Fig. 1)

(51) International

(86) International

Filing Date (87) International

Filing Date (62) Divisional to

Application Number

Filing Date

(61) Patent of Addition:NA

to Application Number :NA

Application No

Publication No

classification

(22) Date of filing of Application :28/12/2021

(43) Publication Date: 04/02/2022

(54) Title of the invention: A SYSTEM TO MONITOR MENTAL WELLBEING VIA AI POWERED CHATBOTS

:H04L0012580000, G06N0020000000,

G16H0050300000, G16H0050200000,

A61B0005160000

:NA

:NA

: NA

:NA

:NA

(71)Name of Applicant:

1)R.M.D. Engineering College

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

Name of Applicant: NA Address of Applicant: NA (72)Name of Inventor: 1)Dr.K.Sarayanan

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

2)Dr.K.Balasubadra

Address of Applicant: R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206.

3)Dr.V.Prasanna Srinivasan

Address of Applicant: R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206.

4)Dr.P.M.Joe Prathap

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

5)Dr.R.Jothilakshmi

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

6)Dr.B.Kalpana

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

7)Dr.D.Praveena

Address of Applicant: R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

8)M.Radhika

Address of Applicant :R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu, India – 601206. ------

(57) Abstract:

The objective of the present invention is to design and develop an artificial intelligence powered chatbots to monitor mental wellbeing of an individual. The system is to provide a self-assessment of the mental health of the individual. A person facing any physical illness knows to visit a doctor right away but a person facing mental problems would not know whom and when to approach anyone. It would be useful for those people to use this application and get a solution right away. (Refer Fig. 1)

(19) INDIA

(22) Date of filing of Application :28/12/2021

(21) Application No.202141061364 A

(43) Publication Date: 04/02/2022

(54) Title of the invention: Augmented Reality Smart Glass for Patient Supervision

:G06Q0050220000, G06T0019000000,

G02B0027010000, C03C0003087000,

G16H0010200000

:PCT//

: NA

:NA

:NA

:01/01/1900

(71)Name of Applicant:

1)R.M.D. Engineering College

Address of Applicant: R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil

Nadu, India – 601206. -----

Name of Applicant: NA Address of Applicant : NA (72)Name of Inventor:

1)A.Tamizharasi

Address of Applicant : R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu,

India – 601206. -----

2)Dr. P. Ezhumalai

Address of Applicant: R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu,

India – 601206. -----

3)Dr.P.Shobharani

Address of Applicant : R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu,

India – 601206. -----

4)S.Logesswari

Address of Applicant : R.M.D. Engineering College, RSM Nagar, Gummidipoondi Taluk, Kavaraipettai, Thiruvallur, Tamil Nadu,

India – 601206. -----

(57) Abstract:

(51) International

(86) International

(87) International

Publication No

Filing Date

Filing Date

Application Number

Filing Date

(62) Divisional to

(61) Patent of Addition:NA

to Application Number: NA

Application No

classification

The objective of the present invention is to design and develop an augmented reality smart glass for patient supervision. In an aspect of the present invention, the glass is used to collect the real time patient's data from the hospitals and presents to the doctors through Augmented Reality glass and also alerts if any abnormality occurs in patients' health. (Refer Fig. 1)