

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202211034130 A

(19) INDIA

(22) Date of filing of Application :14/06/2022

(43) Publication Date : 23/12/2022

(54) Title of the invention : WIRELESS POWER TRANSFER SOIL MOISTURE SENSING DEVICE

(51) International classification :H04L0029080000, A01G0025160000, H04W0004700000, G01N0033240000, H02J0007350000

(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)Chitkara University**

Address of Applicant :Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala -----

**2)Chitkara Innovation Incubator Foundation**

Name of Applicant : NA

Address of Applicant : NA

(72)Name of Inventor :

**1)MAMATHA, Sandhu**

Address of Applicant :Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala -----

**2)VERMA, Pansy**

Address of Applicant :Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala -----

(57) Abstract :

A wireless underground sensor network (WUSNs) system 100 comprising a plurality of soil moisture sensors 102 placed underground in agricultural land, wherein the sensor 102 is configured with a solar panel 104, battery 112 coupled with solar panel, a transceiver module 106, and a microcontroller 212 based control unit 210 to transmit one or more data on one or more IoT devices 214 held by a farmer 216. A plurality of electrical power comprises a solar panel 202 and a wired electrical power 204 coupled to the storage battery 206.

No. of Pages : 15 No. of Claims : 9