

Boletín VT

REDES DE SENSORES INALÁMBRICAS

51

3.º trimestre 2022

Vigilancia Tecnológica

Desde su aparición, los campos de aplicación de las redes de sensores inalámbricos se han ido ampliando de forma constante. La posibilidad de crear extensas plataformas de gestión integrada para la monitorización, captura de datos, y control remoto y en tiempo real mediante estas redes sensoriales, ha proporcionado una poderosa herramienta para el desarrollo de aplicaciones y servicios en sectores económicos tan diversos como el agrícola, el industrial o el de la administración pública.

El presente boletín, elaborado por la Unidad de Información Tecnológica de la Oficina Española de Patentes y Marcas (OEPM), pretende revisar la evolución de la innovación, en el marco de las patentes de las tecnologías TIC en relación con algunas de las aplicaciones más relevantes abordadas por las redes de sensores inalámbricos, tales como: su uso en

entornos agrícolas (gestión de cultivos, plagas, invernaderos, regadíos), su uso en entornos urbanos o públicos (seguridad ciudadana, infraestructuras, gestión de información medioambiental, polución, residuos) o su uso para la detección y gestión de incendios.

De este modo, el boletín, de periodicidad trimestral, recogerá las publicaciones más recientes de solicitudes internacionales de patente (solicitudes PCT) publicadas en el trimestre inmediatamente anterior a su elaboración. Se ha restringido el ámbito de este boletín a solicitudes PCT por considerarse que al ser estas solicitudes con las que las empresas pretenden proteger sus invenciones en distintos países, se corresponden con invenciones de una cierta relevancia tecnológica.



CONTENIDO:

- Redes de sensores para entornos agrícolas
- Redes de sensores para entornos urbanos o públicos
- Redes de sensores para detectar incendios
- Otras referencias

NIPO: 116-19-015-9

Solicitudes de Patente Publicadas

Los datos que aparecen en la tabla corresponden a una selección de las solicitudes de patentes PCT publicadas durante el trimestre analizado. Se puede acceder al documento completo haciendo clic sobre el mismo.

REDES DE SENSORES PARA ENTORNOS AGRÍCOLAS

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
WO 2022129998 A1	ERICSSON TELEFON AB L M	Providing a dynamic service instance deployment plan
WO 2022185114 A1	PREC PLANTING LLC	Downforce load sensor for a planter row unit
WO 2022102576 A1	SONY GROUP CORP	Sensor device
WO 2022187364 A1	NEOX PUBLIC BENEFIT LLC	Methods and apparatus for bio-regulation and templating of plant growth within a controlled growth capsule for the production of augmented bio-consumables
WO 2022118195 A1	PEAK FIBER INNOVATIONS S R L	Environmental monitoring method and system for crops with fiber bragg grating sensors
WO 2022182650 A1	CNH IND AMERICA LLC	Harvesting header multi-sensor height control
WO 2022186746 A1	HUSQVARNA AB	Vegetation management system and method for managing vegetation within an area
WO 2022189808 A1	VESCOR GROUP LTD	Controlled environment production facility
WO 2022192988 A1	MCCANN DANIEL	System and method for adjustable targeting in field treatment
WO 2022197715 A1	RADIO SYSTEMS CORP	Environmental state health assessment
WO 2022195491 A1	FFROBOTICS LTD	Systems and methods for robotic fruit harvesting
WO 2022132327 A1	BLUE RIVER TECH INC	Machine-learned tillage malfunction detection in an autonomous farming vehicle
WO 2022157085 A1	UBEES FRANCE	Bee pollination monitoring system
WO 2022129513 A1	AGROBOTIX INNOVATION TECH S L	Sensor, system and method to measure the quality of the application of agrochemicals in croplands
WO 2022130145 A1	LELY PATENT NV	Animal husbandry system
WO 2022180616 A1	THE STATE OF ISRAEL MINISTRY OF AGRICULTURE & RURAL DEVELOPMENT AGRICULTURAL RES ORGANIZATION ARO VO	Estimation of a crop coefficient vector based on multispectral remote sensing
WO 2022164963 A1	HELIPONIX LLC	System for monitoring enclosed growing environment
WO 2022173352 A1	DELAVAL HOLDING AB	A method of controlling a milking arrangement, and a milking arrangement
WO 2022180456 A1	ALNUAIMI MOHAMED	Aquaponic system and method of plant cultivation
WO 2022178572 A1	CERES TAG LTD	Improved animal collar assembly
WO 2022173519 A1	VICKERY ETHAN	Adaptable bait station
WO 2022186806 A1	SECKINER TEKNOLOJI VE KIMYA SANAYI VE TICARET ANONIM SIRKETI	Pest control system and method
WO 2022144260 A1	ESTRADA CRISTIANO	Device and method for detecting, displaying and evaluating motion data of a horse
WO 2022167648 A1	CEVA SANTE ANIMALE	Connected hatchery comprising a plurality of devices for handling, processing or vaccinating eggs or chicks

WO 2022149197 A1	MITSUBISHI ELECTRIC CORP	Wave transmission control device, underwater organism guidance device, and wave transmission control method
WO 2022140548 A1	HEARTLAND AG TECH INC	Modular kinematic and telemetry system for an irrigation system
WO 2022157949 A1	RABO INC	Information processing device
WO 2022147530 A1	HEARTLAND AG TECH INC	Determining drive system anomalies based on power and/or current changes in an irrigation system
WO 2022124877 A1	RODRIGUEZ DENISE SUSANA	Agricultural monitoring system
WO 2022155119 A1	X DEV LLC	Predicting soil organic carbon content
WO 2022162372 A1	4GD LTD	System for behaviour monitoring
WO 2022158598 A1	AMATERZ INC	Wireless communication network system and relay device
WO 2022152797 A1	4S AACHEN GMBH	Plant cultivation device
WO 2022192251 A1	PROTECT ANIMALS WITH SATELLITES LLC	Corrective collar utilizing geolocation technology
WO 2022153076 A2	SAYEDAHMAD MOHAMMAD	Fish trap using light
WO 2022175309 A1	KWS SAAT SE & CO KGAA	Methods for analyzing plant material, for determining plant material components and for detecting plant diseases in plant material
WO 2022131109 A1	SONY SEMICONDUCTOR SOLUTIONS CORP	Light detector and electronic device
WO 2022131176 A1	HAPSMOBILE INC	Control device, program, system and method
WO 2022135632 A1	SAM DIMENSION UG HAFTUNGSBESCH RAENKT	Apparatus and method for area mapping
WO 2022170019 A1	UNIV FLORIDA	Smart sprayer systems and methods
WO 2022176611 A1	NAT AGRICULTURE & FOOD RES ORG	Environmental information acquisition device
WO 2022157306 A1	OCADO INNOVATION LTD	A data collection and monitoring system, a controlled environment farming system, devices and related methods
WO 2022150794 A1	AGTONOMY	Crop view and irrigation monitoring
WO 2022153757 A1	SONY GROUP CORP	Moisture sensor control device, moisture sensor control system, and moisture sensor control method
WO 2022173431 A1	AQUAEASY PTE LTD	Fluorescence-based chemosensor
WO 2022178044 A1	DEEP GREEN BIOMASS LLC	Methods, apparatus, and systems for highly efficient harvesting and cultivation of microalgae biomass
WO 2022150793 A1	AGTONOMY	Multi-operational land drone
WO 2022182666 A1	PURDUE RESEARCH FOUNDATION	Grain moisture meter networked to smartphones
WO 2022154743 A1	DELAVAL HOLDING AB	Quality sensor, computer-implemented method of predicting inhomogeneities in milk extracted from an animal, computer program and non-volatile data carrier
WO 2022140385 A1	701X INC	Livestock management system
WO 2022137243 A1	DIPTERA AI LTD	Optical technique for analyzing insects, shrimp and fish
WO 2022159903 A2	AGNETIX INC	Multisensory methods and apparatus for controlled environment horticulture
WO 2022155428 A1	MAUI GREENS INC	Grow module for plant vessels

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REDES DE SENSORES PARA ENTORNOS URBANOS O PÚBLICOS

Nº PUBLICACIÓN SOLICITANTE CONTENIDO TÉCNICO

WO 2022101510 A1	U EARTH BIOTECH LTD	Air monitoring systems and methods
WO 2022187552 A1	NEC LAB AMERICA INC	Street light operating status monitoring using distributed optical fiber sensing
WO 2022189269 A1	TRIDONIC GMBH & CO KG	System comprising a luminaire and a camera module
WO 2022123094 A1	REDYTEL IOT S L	System and method for analysing indoor air quality
WO 2022189601 A1	SCHREDER SA	Network system with sensor configuration model update
WO 2022150035 A1	GOOGLE LLC	Generating and managing calibration data for sensors used to obtain weather information
WO 2022162156 A1	TRIDONIC GMBH & CO KG	Lighting system and a method for providing light to an area
WO 2022172450 A1	NIPPON TELEGRAPH & TELEPHONE	Data collecting device, data collecting method and data collecting program
WO 2022179514 A1	SUZHOU OPPLER LIGHTING CO LTD	Street lamp controller upgrading method and bridge node
WO 2022170505 A1	SIEMENS AG	Sensor strip, chain-type sensor strip, and flange leak detection method
WO 2022170506 A1	SIEMENS AG	Sensor strip and flange leak detection method
WO 2022139042 A1	CHORUSING CO LTD	Solar lighting device capable of illuminance control according to traffic
WO 2022180433 A1	NIKJOOY GOLRIZ	Portable device for experimental modal analysis of static-dynamic structure of constructions
WO 2022173304 A1	ASSET TELEMETRY B V	A data acquisition system for acquiring maintenance data, an insulating plate portion, a method and a computer program product
WO 2022156996 A1	VESTEL ELEKTRONIK SANAYI VE TICARET AS	Methods and apparatuses for sensing application identification and prediction
WO 2022131388 A1	HYUNGSUNG CO LTD	Artificial intelligence-based safety management system using mobile unmanned detection device
WO 2022162657 A1	TRAILZE LTD	Automatically creating a terrain mapping database
WO 2022173959 A1	WATTS REGULATOR CO	Pressure compensation systems, liquid supply systems and methods using the same
WO 2022146388 A1	DOKUZ EYLUEL UENIVERSITESI REKTOERLUEGUE	An entry warning unit and entry control method
WO 2022115712 A1	H2OK INNOVATIONS INC	Methods and systems for monitoring fluids

[...ver más](#)

REDES DE SENSORES PARA DETECTAR INCENDIOS

Nº PUBLICACIÓN SOLICITANTE CONTENIDO TÉCNICO

WO 2022129501 A1	BIRDZ	Module for analysing the consumption of a fluid leaving a valve
WO 2022184971 A1	MARICARE OY	Sensor and system for monitoring
WO 2022186052 A1	NOHMI BOSAI LTD	Smoke monitoring system and smoke sensor
WO 2022185786 A1	PANASONIC IP MAN CO LTD	Alarm system, control device, and detector
WO 2022132588 A1	ITRON INC	Determining alternative outcome or event based on aggregated data
WO 2022171722 A1	TRINAMIX GMBH	Sinusoidal lamp driver
WO 2022132594 A1	ITRON INC	Determining backflow condition in water distribution system
WO 2022126513 A1	BIANYUAN INTELLIGENCE RES INSTITUTE CO LTD OF NANJING	Digitized information-based hospital intelligent management system
WO 2022154278 A1	H2K SOLUTION INCORPORATED	System for thermal runaway prevention and fire prevention in energy storage system
WO 2022181025 A1	PANASONIC IP MAN CO LTD	Control system and sensor
WO 2022168105 A1	GUPTA ASEEM	A textile gateway connector for embedded textile electronics, sensors and digital components
WO 2022177154 A1	ROZETATECH CO LTD	Fire alarm device having traffic control function
WO 2022178197 A1	GEORGIA TECH RES INST	Neural network-based anomaly detection system and method
WO 2022151421 A1	HUAWEI TECH CO LTD	Client device and network node for efficient disaster handling
WO 2022147322 A1	OBERON TECH INC	Systems and methods for virtual reality environments
WO 2022134066 A1	CONTEMPORARY AMPEREX TECHNOLOGY CO LTD	Firefighting switch device and firefighting system

[..ver más](#)

OTRAS REFERENCIAS

Nº PUBLICACIÓN SOLICITANTE CONTENIDO TÉCNICO

WO 2022187258 A1	SAUDI ARABIAN OIL CO	Detecting carbon dioxide leakage in the field
WO 2022182488 A1	BUILDING ROBOTICS INC	System and method for managing sensors
WO 2022129396 A1	ELECTRICITE DE FRANCE	Method of maintaining an electricity distribution network
WO 2022144822 A1	SEPULVEDA LEON GAGARIN ANIBAL	System for monitoring faults in a medium- and/or high-voltage power line
WO 2022112629 A1	ZEO TECH FOR INDUSTRY S L	Warehouse management system and method
WO 2022193952 A1	HUAWEI TECH CO LTD	Method and system for wi-fi sensing
WO 2022132284 A1	ITRON INC	Network edge detection and notification of gas pressure situation
WO 2022179886 A1	SIGNIFY HOLDING BV	Disinfection and detection of microorganisms
WO 2022187468 A1	INTEL CORP	Technologies for wireless sensor networks
WO 2022184529 A1	MUNTERS EUROPE AB	A system and methods for communication of sensor data and/or user control data
WO 2022135867 A1	OTT HYDROMET B V	Pyranometer and method of detecting a soiling on a dome in a pyranometer
WO 2022181996 A1	SAMSUNG ELECTRONICS CO LTD	Augmented reality device and electronic device interacting with augmented reality device
WO 2022178865 A1	SIEMENS AG	Method and device for monitoring and predicting traction power supply system of rail transit
WO 2022149622 A1	LG ELECTRONICS INC	Method and device for performing wireless sensing based on wireless sensing
WO 2022155875 A1	QUALCOMM INC	Group uplink control information for industrial internet of things
WO 2022170054 A1	INVENSENSE INC	Adaptive sensor filtering
WO 2022186246 A1	PANASONIC IP MAN CO LTD	Wireless network system, and wireless device
WO 2022129787 A1	SEB SA	Device for monitoring a component of the air
WO 2022146460 A1	BOULDER ENVIRONMENTAL SCIENCES AND TECH	Systems for passive microwave remote sensing and their calibration methods
WO 2022182732 A1	SIGMASENSE LLC	Batteryless wireless sensor system
WO 2022164524 A1	ZEBRA TECH CORP	Automated validation of location tracking system
WO 2022168040 A1	OCTOPUS ENERGY GROUP LTD	Methods and systems for detecting water leakage
WO 2022162053 A1	EXPLICIT APS	A method and an unmanned aerial vehicle for determining emissions
WO 2022174066 A1	BP CORP NORTH AMERICA INC	Systems and methods for facilitating the management of energy production or processing facilities
WO 2022120259 A1	PERCEPTIVE SENSOR TECH INC	Apparatus, system, and method for the detection of objects and activity within a container
WO 2022178574 A1	THE REMEDIATION GROUP PTY LTD	System, apparatus and method for landfill gas sensing
WO 2022129611 A1	LUXEMBOURG INST SCIENCE & TECH LIST	Method for quantifying the extent and recurrence of natural events
WO 2022131292 A1	HONDA MOTOR CO LTD	Information processing device, calculation method, program, and storage medium
WO 2022140684 A1	SCIENT AVIATION INC	System and method for detecting methane and other gases using a remotely deployable, off-grid system
WO 2022161719 A1	UNIV OTTO VON GUERICKE MAGDEBURG	Casting ladle for scooping and casting liquid metal, and method

WO 2022174911 A1	ERICSSON TELEFON AB L M	Allocation of frequency domain resources for wireless sensing
WO 2022192085 A1	SCHLUMBERGER TECHNOLOGY CORP	Methods and systems providing operational surveillance of valves used in industrial applications
WO 2022171297 A1	ERICSSON TELEFON AB L M	Control of wireless sensing devices
WO 2022175190 A2	SIGNIFY HOLDING BV	Configuration module for configuring a radiofrequency sensing network
WO 2022149250 A1	NIPPON TELEGRAPH & TELEPHONE	Data collection device, sensor terminal, metadata collection system, metadata collection method, and program
WO 2022152614 A1	SIGNIFY HOLDING BV	System for controlling a radiofrequency sensing
WO 2022174761 A1	IBM	Continuous monitoring, advance alerts, and control of key performance indicator variables
WO 2022167097 A1	ABB SCHWEIZ AG	Human-robot collaborative navigation
WO 2022177646 A2	RAYTHEON CO	Systems and methods for intersensor satellite calibration
WO 2022159542 A1	SAUDI ARABIAN OIL CO	Evaluation of source rock samples from subterranean reservoirs
WO 2022162443 A1	ADAM AI SOLUTIONS S R L	Predictive system and method for safety in the workplace
WO 2022182135 A1	SAMSUNG ELECTRONICS CO LTD	Electronic device and operation method therefor
WO 2022153717 A1	UNIV TSUKUBA	Transfer control element and networking system
WO 2022156421 A1	DATANG MOBILE COMMUNICATIONS EQUIPMENT CO LTD	Method and apparatus for fusing wireless communication and wireless sensing
WO 2022172643 A1	PANASONIC IP MAN CO LTD	Estimation system, human monitoring system, estimation method, and program
WO 2022177694 A1	MICROSOFT TECHNOLOGY LICENSING LLC	Estimating emissions with virtual sensor models
WO 2022158069 A1	KONICA MINOLTA INC	Communication system and data input control program
WO 2022168821 A1	PANASONIC IP CORP AMERICA	Information processing method, and information processing device
WO 2022160231 A1	HUAWEI TECH CO LTD	Method and apparatus for reading data
WO 2022165600 A1	COLDCHASE GP INC	Gateway connection from beacon trackers to a network
WO 2022182535 A1	ORCHARD HOLDING	A system, device, process and method of measuring food, food consumption and food waste
WO 2022148639 A1	BRITISH TELECOMM	A wireless sensing method
WO 2022139449 A1	LG ELECTRONICS INC	Improved wireless lan sensing procedure
WO 2022157677 A1	GREENFIT BRO S R L	Common training workstation and related method of use
WO 2022131987 A1	DJUP AB	Measuring probe for a spinning or casting rod
WO 2022132026 A1	YCH GROUP PTE LTD	System and method for cold chain management of a temperature sensitive product
WO 2022177357 A1	SAMSUNG ELECTRONICS CO LTD	Device-invariant, frequency-domain signal processing with machine learning
WO 2022136522 A1	TOPSOE AS	Computer-implemented monitoring methods and systems for a renewables plant
WO 2022124532 A1	ELSSSEN CO LTD	Intelligent sensor and intelligent sensing method using same
WO 2022151374 A1	SZ DJI TECHNOLOGY CO LTD	Environmental information acquisition apparatus, unmanned aerial vehicle base station, methods, and storage medium
WO 2022148461 A1	HUAWEI TECH CO LTD	Wireless local area network sensing method and apparatus
WO 2022155196 A1	TECH LICENSING CORP	Root zone warming system for natural turf athletic field
WO 2022158191 A1	PANASONIC IP MAN CO LTD	Sensor
WO 2022175576 A1	HOP UBIQUITOUS S L	Continuous measuring device for air quality measurement equipment and method for measuring air quality using same

WO 2022125708 A1	GEEGAH LLC	Imaging and sensing of thin layer using high-frequency ultrasonic transducers
WO 2022149621 A1	LG ELECTRONICS INC	Method and apparatus for performing wireless sensing by collecting empty data on basis of wireless sensing
WO 2022153679 A1	HONDA MOTOR CO LTD	Sensor network
WO 2022130301 A1	KONTAKT IO INC	Indoor tag location detection system
WO 2022164278 A1	SAMSUNG ELECTRONICS CO LTD	Electronic device and method for synchronizing times of different data records
WO 2022139346 A1	KOREA ELECTRONICS TECHNOLOGY	Battery state estimation system and method for energy-independent smart sensor
WO 2022159499 A1	TAHA AYMAN	Technician performance system
WO 2022129404 A1	FRAUNHOFER GES FORSCHUNG	Humidity sensor, method for providing a humidity sensor and method for evaluating a state of a humidity sensor
WO 2022145703 A1	SAMSUNG ELECTRONICS CO LTD	Air conditioner, air conditioning system, and control method therefor
WO 2022126025 A2	JUMBE NELSON L	Personal protective device and methods of manufacture thereof
WO 2022163892 A1	UNIV NAT CHONNAM IND FOUND	Portable wearable respiration monitoring device and mask comprising same
WO 2022159906 A1	NEC LAB AMERICA INC	Detection of static weight on aerial telecommunications optical fibers using das ambient data
WO 2022145834 A1	KOREA ELECTRONICS TECHNOLOGY	Power saving method and system by determining operation pattern of energy harvesting sensor
WO 2022155293 A1	UNIV TEXAS	Gas detector devices and methods of making and use thereof
WO 2022140487 A1	NEC LAB AMERICA INC	Context encoder-based fiber sensing anomaly detection

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Gracias a los ITPs** de la OEPM hemos podido decidir la mejor forma de protección de nuestros resultados de I+D y redactar adecuadamente nuestras solicitudes de patente.



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