

Boletín VT

REDES DE SENSORES INALÁMBRICAS

56

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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 2023235077 A1	AQUABYTE INC	Adaptive feeding of aquatic organisms in an aquaculture environment
WO 2023232728 A1	CNH IND BELGIUM NV	Reel torque measurements in agricultural header
WO 2023239497 A1	X DEV LLC	Determining audio output for aquaculture monitoring models
WO 2023217684 A1	SIGNIFY HOLDING BV	Regulation of fruit set in peppers by dynamically adapting the led lighting spectrum
WO 2023235941 A1	DE OLIVEIRA MATHEUS SANTETTI	Weighing system and method for use in agricultural implements and the like
WO 2023222456 A1	YARA INT ASA	Method and system for grain moisture measurement
WO 2023224537 A1	DELAVAL HOLDING AB	Configuration system for a milking plant monitoring system, computer-implemented method, computer program and non-volatile data carrier
WO 2023240257 A1	MOVELLA INC	Reusable ear tag
WO 2023194202 A1	SMF HOLDING GMBH	Method for monitoring a crop flow, and harvester
WO 2023211277 A1	EASYMEASURE DEV B V	Network and method for the monitoring of soil and/or surface water quality
WO 2023227959 A1	PREC PLANTING LLC	System for agricultural sample slurry analysis and related methods
WO 2023222996 A1	E COLLINSON & CO LTD	Silo content monitoring system
WO 2023200567 A1	MICROSOFT TECHNOLOGY LICENSING LLC	Ground sensor-triggered satellite image capture
WO 2023170306 A1	AUGMENTA AGRICULTURE TECH SMPC	Systems and methods for detecting, identifying, localizing, and determining the characteristics of field elements in agricultural fields
WO 2023175047 A1	MYDITEK	Device for monitoring an animal
WO 2023215468 A1	MINERAL EARTH SCIENCES LLC	Incorporating unstructured data into machine learning-based phenotyping
WO 2023227983 A1	TECNOVERDE GARDEN S R L	Method and system for maximization of photosynthetic efficiency in plants using a self-modeling hygromorphic fabric
WO 2023198893 A1	LEWIS ANITECH GMBH	Animal monitoring systems
WO 2023222594 A1	FAUNAPHOTONIC S AGRICULTURE & ENV A/S	Apparatus and method for detecting insects
WO 2023225130 A1	RAVEN IND INC	Sprayer diagnostic and remedial system and methods for same
WO 2023200418 A1	YALCIN ONUR	A milk measuring device
WO 2023233408 A1	THE STATE OF ISRAEL MINISTRY OF AGRICULTURE & RURAL DEVELOPMENT AGRICULTURAL RES ORGANIZATION ARO VO	Agrivoltaic system and method
WO 2023192374 A1	HEARTLAND AG TECH INC	Irrigation system including electronic independent observer integration with fertigation system
WO 2023220335 A1	AGZEN INC	Systems and methods for real-time measurement and control of sprayed liquid coverage on plant surfaces

WO 2023223999 A1	DENSO CORP	Watering system and control device
WO 2023224910 A1	SYNGENTA CROP PROTECTION AG	Electrical tomography systems and uses
WO 2023225766 A1	INSTITUTO DE INVESTIG AGROPECUARIAS	Process for predictive monitoring in a crop field, in particular in blueberry and grape crops
WO 2023239794 A1	SENSORYGEN INC	Systems and methods for monitoring arthropod vectors and building projective models
WO 2023214220 A1	PREC PLANTING LLC	Systems and methods for vision-based plant detection and scouting application technology
WO 2023187494 A1	AGCO INT GMBH	Header flow monitoring
WO 2023210905 A1	UNIV SOOKMYUNG WOMENS IND ACAD COOP FOUND	Movable sensing apparatus and system for managing cultivation using same
WO 2023196126 A1	IUNU INC	Automated plant grouping and tracking using image data
WO 2023223320 A1	AGROMENTUM LTD	System and method for agricultural treatment with realtime feedback
WO 2023225688 A1	PEAK ROOTS INC	Horticulture automation systems, devices, and methods
WO 2023203818 A1	KYOWA KIKAI KK	Egg size determination device and abnormal egg inspection device equipped therewith
WO 2023175519 A1	HARMOUCHE MITRI	A modular planter for growing vegetation
WO 2023210215 A1	OMRON TATEISI ELECTRONICS CO	Cultivation assistance system
WO 2023212659 A1	UNIV UTAH RES FOUND	Uv-based, in-situ soil carbon measurement system
WO 2023212214 A1	UNIV TEXAS	Microneedle-based plant sensors and methods of making and using thereof
WO 2023220326 A1	AGTONOMY	Smart implements
WO 2023220575 A1	MAIN JERRY A JR	Sensor-activated lighting system for agricultural growing tables
WO 2023215634 A1	UNIV ARKANSAS	Sensor-based smart insect monitoring system in the wild
WO 2023201443 A1	ICLASSIFIER INC	Method and system for automated evaluation of animals
WO 2023194918 A1	TEFEN FLOW AND DOSING TECH LTD	Closed transfer system with metered dispensing
WO 2023214338 A1	UNIV DE CIENCIAS APLICADAS Y AMBIENTALES U D C A	System and method for evaluating and diagnosing in real time the specific conditions and physical, chemical and microbiological properties of agricultural soil
WO 2023215496 A1	AL GROW LLC	Open-source system for providing environmental data
WO 2023218454 A1	NOF NATURAL OFFSET FARMING LTD	Method and device for optimization of plant root-zone temperature
WO 2023178372 A1	SMAXTEC ANIMAL CARE GMBH	Probe apparatus for measuring at least one state variable of the organism of a livestock animal
WO 2023215178 A1	RAVEN IND INC	Valve control systems and methods

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REDES DE SENSORES PARA ENTORNOS URBANOS O PÚBLICOS

Nº PUBLICACIÓN SOLICITANTE CONTENIDO TÉCNICO

WO 2023235981 A1	CRWN AI LTD	Method and system for detecting defects on remote infrastructure
WO 2023229711 A1	MICROSOFT TECHNOLOGY LICENSING LLC	Collecting telemetry data for 3d map updates
WO 2023180010 A1	BRITISH TELECOMM	Sensor evaluation
WO 2023213374 A1	HUAWEI TECH CO LTD	Apparatus and method for polarimetry sensing for extraction of information from the environment
WO 2023211994 A1	KONEKX	Systems and methods for preemptive communication of road condition data
WO 2023222424 A1	SIGNIFY HOLDING BV	Streetlight lamp post, street lighting system and method for operating a street lighting system
WO 2023223483 A1	MITSUBISHI ELECTRIC CORP	Landslide disaster area detecting device and landslide disaster area detecting method
WO 2023232210 A1	REMONI AS	Easy mountable wireless data communication unit and a system comprising it
WO 2023218934 A1	SONY SEMICONDUCTOR SOLUTIONS CORP	Image sensor
WO 2023219823 A1	WESTERN DIGITAL TECH INC	Usage-based assessment for surveillance storage configuration
WO 2023192761 A1	ROSEMOUNT INC	Ph sensor with secondary reference electrode
WO 2023168524 A1	MIOVISION TECH INCORPORATED	System and methods for quantifying greenhouse gas emissions via measurement and modelling of traffic data and for influencing traffic signaling to reduce such emissions
WO 2023215415 A2	UBICQUIA INC	Wireless communication node and method for configuring donor and service antennas therefor

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REDES DE SENSORES PARA DETECTAR INCENDIOS

Nº PUBLICACIÓN SOLICITANTE CONTENIDO TÉCNICO

WO 2023232219 A1	ERICSSON TELEFON AB L M	Distributed collaborative event detection by sensors
WO 2023237188 A1	SYANS	Tactical portable communication system for a user and tactical information system
WO 2023241906 A1	HILTI AG	Component, sensor system and method for monitoring a through-opening
WO 2023180751 A1	CONNECTED INNOVATIONS	Smart socket device and system
WO 2023180331 A1	DRYAD NETWORKS GMBH	Device and method for detecting a forest fire
WO 2023180735 A1	FIREANGEL SAFETY TECH	Safety alarm
WO 2023192498 A1	JOHNSON CONTROLS TYCO IP HOLDINGS LLP	Dynamic control of detector sensitivity in fire alarm control systems
WO 2023220596 A1	GOOGLE LLC	Device deduplication between home networks
WO 2023202737 A1	MARKOWSKI MARIUS	Acoustic alarm system
WO 2023200422 A1	ASELSAN ELEKTRONIK SANAYI VE	Hard-kill system against mini/micro unmanned aerial vehicles
WO 2023235220 A2	ADEMCO INC	Pressure data for security and hazards
WO 2023199035 A1	CUCUMBER LIGHTING CONTROLS LTD	A fitting for mounting a building control sensor
WO 2023215929 A1	OPTIMUSE GMBH	Discretisation of building models to enable the spatial positioning of technical components
WO 2023242694 A1	TYCO FIRE PRODUCTS LP	Smart fire detection systems and methods
WO 2023205337 A1	AL TECH HOLDINGS INC	System for real time simultaneous user localization and structure mapping
WO 2023239828 A1	MUELLER INT LLC	Hydrant pumper cap communication assembly
WO 2023192507 A1	JOHNSON CONTROLS TYCO IP HOLDINGS LLP	Premises intersystem operations
WO 2023239083 A1	LG ENERGY SOLUTION LTD	Battery module assembly having fire extinguishing function, and battery pack comprising same
WO 2023233236 A1	3M INNOVATIVE PROPERTIES	Multiple displays in a full-face respiratory protected facepiece
WO 2023220818 A1	COOKTOP SAFETY INC	Systems and methods for detecting cooktop events
WO 2023220638 A1	ECOLINK INTELLIGENT TECHNOLOGY	System, method and apparatus for propagating a primary alert of a monitoring system or device
WO 2023189531 A1	HITACHI SYSTEMS LTD	Water quality sensor calibration system, water quality management system, and water quality management method
WO 2023177142 A1	ROZETATECH CO LTD	Fire detection device and fire detection system comprising semiconductor chip
WO 2023187387 A1	ARTEMIS TECH LIMITED	Battery safety system and method
WO 2023224676 A1	RED LINE SAFETY INC	Devices, methods, and systems for first responders
WO 2023214726 A1	CHUNG YONGJU	Fire suppression system and firefighting aerial vehicle including same
WO 2023172591 A2	INCAENDIUM INITIATIVE CORP	Electrical power generation and architecture structure for controlling an acoustic fire suppression system
WO 2023180893 A1	KHOT DATTATRAYA BALIRAM	Artificial intelligence implemented real time crowd data analysis system for stampede prevention

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OTRAS REFERENCIAS

Nº PUBLICACIÓN SOLICITANTE CONTENIDO TÉCNICO

WO 2023232275 A1	ERICSSON TELEFON AB L M	Approaches for wireless sensing
WO 2023233388 A1	KELLETT LEROY MICHAEL	Improvements to heating systems
WO 2023232314 A1	IND TOBIA S A	Smart mattress topper system and associated method
WO 2023239956 A1	LINEVISION INC	Transmission line monitoring using an optical blowout anemometer
WO 2023242797 A1	MOVE S R L	Method of synchronization of a wireless sensor system and a sensor system implementing such a method
WO 2023180178 A1	BASF COATINGS GMBH	System and method for object recognition utilizing color identification and/or machine learning
WO 2023236179 A1	QUALCOMM INC	Sensing processing capability report in user equipment (ue) - assisted bistatic or multistatic sensing
WO 2023212013 A1	UNIVERSAL CITY STUDIOS LLC	Systems and methods for wireless communication in ride attractions
WO 2023222689 A1	NORDIC SEMICONDUCTOR ASA	Radio mesh network configuration
WO 2023234153 A1	HORIBA LTD	Radiation detection device, control method, and computer program
WO 2023202789 A1	NEC LABORATORIES EUROPE GMBH	Method and system for supporting emission monitoring
WO 2023205909 A1	KOLVENBACH HENDRIK RENE	Waste analysis and certification station and method for waste treatment
WO 2023196704 A1	QUALCOMM INC	Dynamic sensing configuration
WO 2023198705 A1	AUTHENA AG	Electronic tag
WO 2023217977 A1	GRUNDFOS HOLDING AS	Method and system for determining an operational parameter of a district energy grid in a district energy system
WO 2023233946 A1	SONY GROUP CORP	Information processing method and information processing device
WO 2023235430 A1	WEAVIX INC	Smart field communication devices with blind user interfaces
WO 2023196334 A1	ALLEGION ACCESS TECH LLC	Automatic door with radar sensing
WO 2023193934 A1	NEC LABORATORIES EUROPE GMBH	Method and system for supporting emission reduction
WO 2023180357 A1	INST MINES TELECOM	Device for measuring the atmospheric concentration of ozone and the atmospheric concentration of nitrogen dioxide
WO 2023233594 A1	NIPPON TELEGRAPH & TELEPHONE	Wireless sensing system, wireless sensing method, and measurement apparatus
WO 2023231921 A1	VIVO MOBILE COMMUNICATION CO LTD	Wireless sensing switching method, and device
WO 2023231919 A1	VIVO MOBILE COMMUNICATION CO LTD	Wireless sensing condition switching method and device
WO 2023233490 A1	NIPPON TELEGRAPH & TELEPHONE	Information processing device, calculation method, and calculation program
WO 2023200325 A1	BELTRAN RAMIREZ JESUS RAUL	Hygienic mouth covering with temperature detection and airflow
WO 2023217979 A1	GRUNDFOS HOLDING AS	Method and system for determining heat loss in a service line of a district energy system
WO 2023203712 A1	MITSUBISHI ELECTRIC CORP	Device control apparatus, device control method, program, and device control system
WO 2023240493 A1	ZTE CORP	Radio access network nodes with wireless communication and sensing for single connectivity
WO 2023215192 A1	SCHLUMBERGER TECHNOLOGY CORP	Pole-mounted devices and systems for iot-enabled monitoring of methane emissions of one or more industrial facilities

WO 2023225671 A2	LIBERTI III WILLIAM ANTHONY	Tissue spectrophotometry for human-computer and human-machine interfacing
WO 2023192520 A1	APPLIED MATERIALS INC	Leak detection for gas stick leaks
WO 2023187478 A1	WEATHERFORD TECH HOLDINGS LLC	Methane leak remediation system and method
WO 2023240492 A1	ZTE CORP	Radio access network nodes with wireless communication and sensing for dual connectivity
WO 2023233595 A1	NIPPON TELEGRAPH & TELEPHONE	Radio sensing system, radio sensing method and measurement request device
WO 2023214263 A1	AHOLD DELHAIZE LICENSING SARL	Stock level detection apparatus and methods thereof
WO 2023195838 A1	SAUZA AGUIRRE MARCO POLO	Adaptable human-machine interface module
WO 2023239897 A1	BADGER METER INC	System and method for reviewing and monitoring precipitation aware irrigation
WO 2023195448 A1	NIKON CORP	System and approving method, information acquisition system and information acquisition method, shape acquisition system and shape acquisition method, and monitoring method
WO 2023200992 A1	PENN STATE RES FOUND	Systems and methods for remote machine and equipment monitoring using compressed sensing techniques
WO 2023235462 A1	SEEGRID CORP	System and method for generating complex runtime path networks from incomplete demonstration of trained activities
WO 2023220430 A1	VISTRA ZERO LLC	System and method for optimizing energy production of a solar farm
WO 2023200130 A1	SIMPLATFORM CO LTD	Equipment using rpa, and facility data collection system and method
WO 2023224295 A1	LG ELECTRONICS INC	Mobile robot and method for controlling mobile robot
WO 2023181732 A1	PANASONIC IP MAN CO LTD	Gas meter
WO 2023212279 A1	SAFEGUARD EQUIPMENT INC	Issuing emergency alert(s) for detected life-threatening events involving power systems
WO 2023216118 A1	ZTE CORP	Path switch for ue-to-ue relay communication
WO 2023183320 A1	ARGUS IOT INC	Methods and systems for sensor-assisted monitoring of temporal state of device
WO 2023215965 A1	COGNITIVE SYSTEMS CORP	Operating a mobile wireless communication device for wireless motion sensing
WO 2023216256 A1	BEIJING XIAOMI MOBILE SOFTWARE CO LTD	Method and apparatus for providing wireless sensing service, and device and storage medium
WO 2023225309 A1	NEC LAB AMERICA INC	Time synchronization method with trusted beacons and distributed fiber sensing
WO 2023182921 A1	ALVEO AB	Methods, and unmanned aerial systems for obtaining meteorological data
WO 2023199107 A1	2S WATER INCORPORATED	Detection of water contamination based on spectrographic analysis
WO 2023188954 A1	PANASONIC IP MAN CO LTD	Gas meter and gas meter power consumption management system
WO 2023189638 A1	MITSUMI ELECTRIC CO LTD	Optical gas sensor device
WO 2023215992 A1	COGNITIVE SYSTEMS CORP	Utilizing spatial maps for motion localization based on motion-sensing data derived from wireless signals
WO 2023183301 A1	BUCKMAN LABORATORIES INT INC	System and method for retroactive and automated validation or corrective action with respect to online sensors
WO 2023173157 A1	PESTSENSE HOLDINGS PTY LTD	Animal trap monitoring system
WO 2023215195 A1	ACLARA TECH LLC	Systems and methods for conductor sensor conductor fall detection
WO 2023220340 A1	TEAM IND SERVICES INC	Monitored repair solutions
WO 2023192564 A1	UNIV CALIFORNIA	Sensor assembly for use in body of water
WO 2023201367 A2	SEEONIC INC	Inventory monitoring and search system
WO 2023215173 A1	SCHLUMBERGER TECHNOLOGY CORP	Passive sensors for iot-enabled systems and methods for monitoring methane emissions of one or more industrial facilities

WO 2023177831 A1	ZEBRA TECH CORP	Sensor data authentication
WO 2023189477 A1	PANASONIC HOLDINGS CORP	Operation system, control method, and program
WO 2023192267 A1	SEEGRID CORP	A system for amrs that leverages priors when localizing and manipulating industrial infrastructure
WO 2023194101 A1	SIEMENS GAMESA RENEWABLE ENERGY AS	Reducing seismic loads that act on a wind turbine
WO 2023215972 A1	ALARMTEK SMART SECURITY INC	Decentralized federated learning systems, devices, and methods for security threat detection and reaction
WO 2023196447 A1	ROTH RIVER INC	Systems and methods for alcohol concentration monitoring
WO 2023230623 A2	EFFICIENCY ENERGY LLC	System and method for a crypto currency system using pollution reduction activities
WO 2023205798 A2	CHEVRON USA INC	Magnetic inspection and monitoring device for a pipe
WO 2023192467 A1	BAE SYS INF & ELECT SYS INTEG	System and method for content based video organization, prioritization, and retrieval
WO 2023230258 A2	C3N TECH INC	Identity service and blockchain

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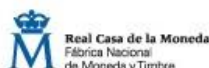
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