

Boletín VT

REDES DE SENSORES INALÁMBRICAS

33

1.º trimestre 2018

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

inalámbricas, 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: 088-17-027-2

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
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WO 2018015519 A1	HARTUNG JÖRG	Robot assisted surveillance of livestock
WO 2018048741 A1	CANTRELL ROBERT L	Systems and methods for identifying pests in crop-containing areas via unmanned vehicles based on crop damage detection
WO 2017216783 A1	O'BRIEN ANNE MARIE	A garment
WO 2018019922 A1	HERMES WILFRIED	Detector for an optical detection of at least one object
WO 2018048706 A1	CANTRELL ROBERT L	Systems and methods for dispensing an insecticide via unmanned vehicles to defend a crop-containing area against pests
WO 2018004429 A1	LIAO BOHAO	Monitoring device and method performed thereby for determining whether an animal is properly fed
WO 2018044635 A1	CHANDRA RANVEER	lot gateway for weakly connected settings
WO 2018042235 A1	KLUTE OLIVER	Method and system for detecting triggering of a trap for small animals
WO 2018048627 A1	THOMPSON JOHN P	Solar rechargeable unmanned vehicle systems and methods to monitor a geographic area
WO 2018019857 A1	VILLAIN FRÉDÉRIC	Method and device for measuring insect density
WO 2018034393 A1	LEE TAE SEOK	Wind direction changing type air circulation fan and system including same
WO 2017211473 A1	AUSTIN NIALL	Method and apparatus for providing indication of the oncoming parturition in livestock
WO 2018013533 A1	ZHONG HAO	Generating pixel maps from non-image data and difference metrics for pixel maps
WO 2018034165 A1	MITANI HITOSHI	Signal processing device, signal processing method, and program
WO 2018034387 A1	KIM YOUNG GOO	Fish farm feeding system using three-dimensional analysis, and method therefor
WO 2018044636 A2	CHANDRA RANVEER	Generating real-time sensor maps from videos and in-ground sensor data
WO 2017206414 A1	XUE LIRONG	Biochemical sensor under standard cmos technology
WO 2018048708 A1	CANTRELL ROBERT L	Systems and methods for identifying pests in crop-containing areas via unmanned vehicles
WO 2018032279 A1	WU KEYI	Wifi connection-based household flower cultivation monitoring instrument
WO 2018032284 A1	WU KEYI	Flower planting environment measurement device
WO 2018048689 A1	CANTRELL ROBERT L	Systems and methods for pollinating crops via unmanned vehicles
WO 2018011538 A1	MCNESTRY MARTIN	Apparatus for watering plants
WO 2018039960 A1	LIU ZHE	Smart monitoring system for fruits and vegetables on basis of internet of things
WO 2018022953 A1	EKINS RICHARD G	Marker system to confirm proper agrochemical compositions and formulations
WO 2018017409 A2	GEHM LANNY	Improved milking system
WO 2018035082 A1	OBROPTA EDWARD	Systems, devices, and methods for monitoring and assessing characteristics of harvested specialty crops
WO 2018038795 A1	DENG Z DANIEL	Systems for monitoring organisms within an aquatic environment
WO 2017217815 A1	SHIN SANGHOON	System comprising beehive and method for managing same
WO 2018017982 A1	JAFFREY KAMAL	Adaptive insect trap
WO 2018022864 A1	SHI YEYIN	Method and apparatus for radiometric calibration and mosaicking of aerial images
WO 2018039366 A1	COUSE JOHN MICHAEL	Monitoring and identifying laboratory animals through uwb and other digital sensory signatures

WO 2018044224 A1	ENICKL JOERGEN	A test device and test method for a milking machine
WO 2018012005 A1	SEIKE KOUJI	Cattle activity/state management system
WO 2018044045 A1	SHUR MICHAEL	Controlling light exposure of light sensitive object
WO 2018009574 A1	WOLF LAWRENCE ADAM	Radiation measuring systems and methods thereof
WO 2018024305 A1	OWEN DAVID ALEXANDER	System and method for centralized water monitoring in a fish farm
WO 2018048666 A1	CANTRELL ROBERT L	Systems and methods for defending crops from crop-damaging pests via unmanned vehicles
WO 2018004890 A1	BRADY JOHN	Methods and apparatus to perform remote monitoring
WO 2018024932 A1	PAU VIZCAINO JOSE LUIS	Moisture sensor
WO 2018031238 A1	GUAN WEI	Estimating nitrogen content using hyperspectral and multispectral images
WO 2018032289 A1	WU KEYI	Household flower planting detection system
WO 2018013858 A1	KOCH DALE	Systems, implements, and methods for seed orientation with adjustable singulators during planting
WO 2018022724 A2	DOBRINSKY ALEXANDER	Ultraviolet-based mildew control
WO 2018013163 A1	CREECHLEY JAREMY	Control and sensor systems for an environmentally controlled vertical farming system
WO 2018002438 A1	MURTHY MKRISHNA	METHOD AND APPARATUS FOR FACILITATING swx ENHANCED PPR BEHAVIOR
WO 2018006132 A1	TEWS ASHLEY	Pest deterrent system
WO 2017210740 A1	INGHAM AARON	System for monitoring pasture intake
WO 2018015519 A1	HARTUNG JÖRG	Robot assisted surveillance of livestock
WO 2018048741 A1	CANTRELL ROBERT L	Systems and methods for identifying pests in crop-containing areas via unmanned vehicles based on crop damage detection
WO 2017216783 A1	O'BRIEN ANNE MARIE	A garment
WO 2018019922 A1	HERMES WILFRIED	Detector for an optical detection of at least one object
WO 2018048706 A1	CANTRELL ROBERT L	Systems and methods for dispensing an insecticide via unmanned vehicles to defend a crop-containing area against pests

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REDES DE SENSORES PARA ENTORNOS URBANOS O PÚBLICOS

Nº PUBLICACIÓN SOLICITANTE CONTENIDO TÉCNICO

WO 2017222403 A1	KARNACHEV ALEXEY ALEXANDROVICH	Method for fluid flow measurement for a discrete area of a fluid supply network
WO 2018019588 A1	RAJAGOPALAN RUBEN	Methods and systems for camera-based ambient light estimation
WO 2018011944 A1	MORIYA YOSHIMI	Crowd monitoring device and crowd monitoring system
WO 2018031332 A1	RODONI PHILIP	Smart waste receptacle providing use-incentive
WO 2018047048 A2	ROMANO YOSEF	System and method for determining a route based on air pollution levels
WO 2018034700 A1	ROBINSON IAN S	Hyperspectral and multispectral imaging system
WO 2018023174 A1	ALLEN KRISTEE	Dynamic advertising system
WO 2018039238 A1	WADHWA MRINAL	System for distributed intelligent remote sensing systems
WO 2018004601 A1	NELSON ZACHARY DAVID	Data collection device with removable battery pack
WO 2018009196 A1	TANG CHIH-WEI	Systems, methods, and devices for data collection with removable battery with integrated storage
WO 2017210791 A1	CARTMILL KEN	Sensor platform for streetlights

[...ver más](#)

REDES DE SENSORES PARA DETECTAR INCENDIOS

Nº PUBLICACIÓN SOLICITANTE CONTENIDO TÉCNICO

WO 2018015418 A1	PEDERSEN OLE MARTIN	Smoke detector operational integrity verification system and method
WO 2018048517 A1	WANG CHUAN BAO	Combustible gas sensing element with cantilever support
WO 2018007609 A1	KULL ANDREAS DITTMAR	Sensor data transmission system
WO 2018029447 A1	ADGIE GLYN MARTIN	Fire extinguisher monitoring system and method
WO 2018044331 A1	AHN JE PHIL	Man down detection for personal safety alarm device
WO 2018026936 A1	WACLAWSKY JOHN G	Systems, apparatuses, and methods for detecting problems in air
WO 2018049422 A1	ARCHIBALD THOMAS EDWIN	Pilot actuator for deluge and pre-action fire protection systems
WO 2018044671 A1	COCKERHAM JOHN D	Method for manufacturing a flame arrestor
WO 2018021041 A1	MIKI SATOSHI	Electronic device and airflow control method
WO 2018026558 A1	PATEL NISHANK R	Method and apparatus for providing air flow
WO 2018002406 A1	APONTE LUIS JUAN	Device, system and method for detecting emergencies in public facilities, building, vehicles and transport networks
WO 2017204795 A1	TUMU ANJIAH	System and method for monitoring and controlling a vortex tube assembly for use in a breathing system
WO 2018043784 A1	PARK JONG TAI	Lighting device
WO 2018035339 A1	TOLAND MARC	Electrical wall outlet fire detection system
WO 2018002577 A1	FROST-GASKIN PETER	Heat alarm integrated into a mains power plug
WO 2018006229 A1	LI KEYUE	Intelligent security system
WO 2018004598 A1	KLEIN BRADLEY	Apparatus for power distribution, environment monitoring and fire protection for rack-mounted equipment
WO 2017216618 A1	CHENG KWONG YIP	Location based quality assurance system
WO 2018006102 A2	CUMMINGS STEPHEN RANDALL	Systems and methods for monitoring for a gas analyte
WO 2018025830 A1	NIHEY FUMIYUKI	Evacuation guidance system and evacuation guidance method
WO 2017223438 A1	AWISZUS STEVEN T	Personal protective equipment system having analytics engine with integrated monitoring, alerting, and predictive safety event avoidance
WO 2017223376 A1	EGELAND MARC A	Retrofit sensor module for a protective head top

[..ver más](#)

OTRAS REFERENCIAS

Nº PUBLICACIÓN SOLICITANTE CONTENIDO TÉCNICO

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
WO 2017222628 A1	BULUMULLA SELAKA BANDARA	Wireless aircraft engine communication system
WO 2018011064 A1	BOUSKA JOHN GERARD	System and method for seismic sensor response correction
WO 2018022863 A1	ANCHAN KIRANKUMAR BHOJA	Differential scheduling for real-time communication services
WO 2018017403 A1	BENNETT KEVIN WALLACE	Brillouin-based distributed bend fiber sensor and method for using same
WO 2018031537 A1	GHOSH SUBHANKAR	Wheel deformity warning system
WO 2017218913 A1	DANIEL SELVAM	Systems and methods for monitoring and optimizing flare purge gas with a wireless rotameter
WO 2018030968 A1	HACIHALILOGLU SONER	Architecturally controlled environment parameter building energy management and automation system
WO 2017213815 A1	GOLI SANTHOSH REDDY	System and method for adjusting power in a wireless sensor
WO 2017222320 A1	KIM NAM SHIK	IoT sensing chip in which IoT wireless modem and NAND flash memory are integrated, and sensing data storage method using same
WO 2017222294 A1	SEO EUN SEOK	Situation awareness system, method and computer-readable recording medium for providing smart service in Internet of Things environment
WO 2018039961 A1	LIU ZHE	Smart household security system on basis of Internet of Things
WO 2018044590 A1	SCHUMACHER JENNIFER F	Systems and methods for modeling, analyzing, detecting, and monitoring fluid networks
WO 2018044146 A1	SIMPLICIO JR MARCOS A	Lightweight and escrow-less authenticated key agreement for the Internet of Things
WO 2018048739 A1	BURNS JACK D	System and method for remote monitoring of solid contaminant in fluids
WO 2018003166 A1	FUJIMORI TSUKASA	Wireless sensor terminal, wireless sensor system, and sensor data collection method
WO 2018009741 A1	MOLDOVEANU NICOLAE	Acquisition of ultra-long offset seismic data for full waveform inversion during seismic land acquisition
WO 2018016703 A1	JEONG SANG SEOM	Wireless sensor network measurement system and measurement method for monitoring, forecasting and alarming landslide
WO 2018032512 A1	SHI DEFENG	Control system
WO 2017216729 A1	FAROOQUI MUHAMMAD FAHAD	Integrated 3D printed wireless sensing system for environmental monitoring
WO 2017222804 A1	POTYRAILO RADISLAV ALEXANDROVICH	A sensing system and an associated method thereof
WO 2018013513 A1	YAMADA ATSUSHI	A monitoring system for a passenger conveyor
WO 2018037392 A1	FRADIQUE VIEIRA NUNO MIGUEL	System and method for access control in open restricted areas
WO 2017214368 A1	BHATASANA CHANDULAL N	Systems and methods to obtain diagnostic information related to a bi-directional prover
WO 2018006226 A1	WANG CHU	Smart home lighting system
WO 2018006023 A1	SHAWVER MATTHEW	Time series data query engine
WO 2018009758 A1	PENNYCOOKE NICHOLAS DAVID	Intelligent lighting control system electrical connector apparatuses, systems, and methods
WO 2017211300 A1	WANG WENZHI	Method and device for displaying temperature data
WO 2017221645 A1	SERIZAWA YASUTAKA	Wireless sensor terminal, wireless data aggregation device, and wireless sensor network system
WO 2018038087 A2	NAKAJIMA MASATO	Room monitoring device
WO 2018004661 A1	KELLY DAMIAN	Monitoring electrical substation networks
WO 2018014031 A1	SCABOO KRISTIAN MICHAEL	Wirelessly sensing properties of a closed environment and devices thereof
WO 2017223358 A1	KEARNEY PHIL	Intelligent modules for intelligent networks
WO 2018013524 A1	HALL DAVID R	Window covering and sensors to reduce convection

WO 2018024522 A1	WENDT MATTHIAS	A building automation system
WO 2018027027 A1	HEDLUND BRIAN	Wireless temperature probe
WO 2017212620 A1	YAMASHITA KOICHIRO	Server apparatus, sensor unit, sensor network, control method and control program
WO 2018020275 A1	TUSH MICHAEL	Computer vision systems
WO 2018032093 A1	WU NAN	Damage detection with self-powered wireless smart coating sensor
WO 2018039423 A1	ZOU LE	Transportable climate-controlled units for fulfillment of perishable goods
WO 2018022436 A1	SIMINOFF JAMES	Floodlight controllers with wireless audio/video recording and communication features
WO 2018026513 A1	HAMPSON GARY	Method for determining notional seismic source signatures and their ghosts from near field measurements and its application to determining far field source signatures
WO 2018038907 A1	KN DINESH KUMAR	Split electronic volume corrector (evc)
WO 2018006006 A1	KESSLER SETH S	Disposable witness corrosion sensor
WO 2017216811 A1	SENGUPTA TAMOJIT	A system and method of sensor profiling and identity modeling of resources in iot systems
WO 2018009160 A1	BARTFAI-WALCOTT KATALIN KLARA	Cognitive edge processing for internet-of-things networks
WO 2018035161 A1	BROWN CHARLES M	Devices, systems and methods relating to hvac systems that provide an implicit partition between at least two abutting environments in a defined large open space
WO 2017214917 A1	WU KEYI	Intelligent water quality monitoring system
WO 2018044578 A1	NYGREN BLAIR	Systems and methods for monitoring vibrations during transportation of goods
WO 2018013047 A1	HUGO ERICH FRANCOIS	Method and device for monitoring statuses and positions of goods
WO 2018013841 A1	GOULDEN JASON EVANS	Waterproof electrical device
WO 2018031026 A1	GUIBENE WAEL	Low power wide area internet protocol communication
WO 2017213894 A1	GAUTIERI STEVE P	Electrochemical gas sensor for use in ultra low oxygen storage environments
WO 2017205723 A1	WOJTUNIK HENRY	Distributed sensor system
US 2018011390 A1	GOULDEN JASON EVANS	Heat Sink of a Camera
WO 2018013549 A1	SKILLINGS STEVE	Musical activity monitor
WO 2018004463 A1	NG HOW YONG	A toxicant monitoring system
WO 2017210698 A1	QUANCI JOHN FRANCIS	Methods and systems for automatically generating a remedial action in an industrial facility
WO 2018009730 A2	HYDE RYAN	Electronic monitoring, security, and communication device assembly
WO 2017222628 A1	BULUMULLA SELAKA BANDARA	Wireless aircraft engine communication system
WO 2018011064 A1	BOUSKA JOHN GERARD	System and method for seismic sensor response correction

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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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