Boletín VT

REDES DE SENSORES INALÁMBRICAS

32

4.º trimestre 2017

Vigilancia Tecnológica

Desde su aparición, los campos de aplicación de las redes de sensores inalámbricas 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:

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 2017164807 A1	ANDERSSON MATTIAS	Tail-mounted sensor device for monitoring animal vital signs
WO 2017189275 A1	FEMATT RAFAEL A	Milk meter
WO 2017199088 A1	FEVOLD JAKE	Bale detection and classification using stereo cameras
WO 2017174149 A1	GUNGL JOHANNES	Intelligent watering system
WO 2017207508 A1	MONTELEONE FABIO	Completely automatic device for aeroponic cultivation
WO 2017174148 A1	GUNGL JOHANNES	Intelligent watering pump
WO 2017208068 A1	KAYE MATHEW VARGHESE	Sensing of objects
WO 2017192789 A1	TRIGIANI ANTONIO	Ultrasonic algae control
WO 2017158006 A2	FERRARI LUCA	Ultrasonic sensors for field roughness measurement
WO 2017202581 A1	KIEFER TIMO	Regulating and/or control system, agricultural machine comprising such a system, and method for operating an agricultural machine
WO 2017208725 A1	AGARI JUN	Hydroponic cultivation system, hydroponic cultivation controller, hydroponic cultivation method and program
WO 2017186372 A1	LIENHARD MARTIN	Smart battery for smart garden
WO 2017205523 A1	LAWRENCE AUSTIN BLAKE	Apparatus and method for autonomous controlled environment agriculture
WO 2017165517 A1	JAY MATTHEW	Remote insect monitoring systems and methods
WO 2017208354 A1	SUGAYA SHUNJI	Drone flight control system, method, and program
WO 2017210014 A1	ALVAREZ FRANCISCO	Computing radar based precipitation estimate errors based on precipitation gauge measurements
WO 2017209974 A1	YU SIMON SIU-CHI	Bug eater
WO 2017189186 A1	KOSTER URS	Dynamic management of numerical representation in a distributed matrix processor architecture
WO 2017192566 A1	EISELE ERIC JON	System and method for advanced horticultural lighting
WO 2017170984 A1	HANYA ISSEI	Fertilization map generation method, fertilization map generation system, fertilization map generation device, and fertilization map generation program
WO 2017181127 A1	SLAUGHTER DAVID	Robotic plant care systems and methods
WO 2017187420 A1	OSMA PINTO GERMAN ALFONSO	Method and system for the intelligent irrigation of photovoltaic panels integrated with green roofs
WO 2017197274 A1	KOCH DALE	Seed trench closing sensors
WO 2017203530 A1	NUDELL MIRAN	Autonomic drip irrigation device exploiting hydroelectric power
WO 2017188476 A1	KIM BYUNGMOO	Device and method for measuring amount of snowfall
WO 2017191993 A1	DOBRINSKY ALEXANDER	Ultraviolet plant illumination system
WO 2017203490 A1	YATES COLIN	Apparatus, methods and systems for determining the body temperature of livestock animal
WO 2017179669 A1	TAKAYAMA MAHO	Indoor air-conditioning device and container refrigeration device equipped with same
WO 2017183344 A1	NIIKURA HIDEO	Signal transmission device and management system
WO 2017197129 A1	STRAIGHT MICHAEL CARL	Automated, modular, self-contained, aquaponics growing system and method
WO 2017170580 A1	NISHIBE YOSEI	Planting system and irrigation method
WO 2017183649 A1	MIWA NAOKI	Compact cultivation device
WO 2017176627 A1	WORKMAN CHRISTOPHER	Horticultural monitoring system

WO 2017168412 A1	BEN HAMOZEG YEHONATAN	Improved system and method for detecting agricultural pests
WO 2017172889 A1	MADDUX ANDREW	Stem sensor
WO 2017176733 A1	SEAMAN KYLE	Modular farm control and monitoring system
WO 2017185134 A1	DRIDAN GEORGE	A sensor network and apparatus therefor
WO 2017160155 A1	OLSTAD ROLF	System and method for capturing moving behaviours of a horse
WO 2017164807 A1	ANDERSSON MATTIAS	Tail-mounted sensor device for monitoring animal vital signs
WO 2017189275 A1	FEMATT RAFAEL A	Milk meter
WO 2017199088 A1	FEVOLD JAKE	Bale detection and classification using stereo cameras
WO 2017174149 A1	GUNGL JOHANNES	Intelligent watering system
WO 2017207508 A1	MONTELEONE FABIO	Completely automatic device for aeroponic cultivation

...ver más

REDES DE SENSORES PARA ENTORNOS URBANOS O PÚBLICOS

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
WO 2017186260 A1	KRIKORIAN KARABET	Edge server and method of operating an edge server
WO 2017182512 A1	VONCKEN RALF GERTRUDA HUBERTUS	A retail lighting system
WO 2017158510 A1	BECHELLI STEFANO	System for detecting and monitoring atmospheric data
WO 2017214204 A1	SAMSON JEAN-FRANCOIS	Temperature correction for energy measurement in a street lighting luminaire
WO 2017172089 A1	GUIBENE WAEL	Internet of things battery device
WO 2017196166 A1	ADEMA PETER GEERARD OEGE	Street light system
WO 2017184636 A1	JARRELL JOHN A	Modular approach for smart and customizable security solutions and other applications for a smart city
WO 2017201477 A1	BHAT JEROME CHANDRA	Integrated sensing device for detecting gasses
WO 2017167673 A1	RAJAGOPALAN RUBEN	Glare-based signaling system for intelligent lighting
WO 2017160663 A1	BORREL HERVE	Traffic pollution mapper
WO 2017195986 A1	KIM HYEON IL	Method for controlling streetlight, and control apparatus using same
WO 2017173904 A1	JIANG YUXI	Intelligent lighting system, intelligent vehicle and auxiliary vehicle driving system and method therefor
WO 2017180382 A1	OJALA PASI SAKARI	System and method for data validation in a decentralized sensor network
WO 2017174726 A1	FERTIER LAURENT	Sensor for measuring the concentration of particles in the atmosphere
WO 2017210240 A1	KRAMARCZYK MICHAEL DAVID	System and method for securely changing network configuration settings to multiplexers in an industrial control system
WO 2017201600 A1	VAUDRIN FRANCOIS	Control and manage traffic light system with vanet
WO 2017183026 A1	STERN YUVAL	Automatic load detection system and method
WO 2017200841 A1	KISTY JEFFREY J	Side-stream foam monitor and control system
WO 2017200627 A1	RIEDEL TOD	Configurable streetlight sensor platform
WO 2017152279 A1	WRIGHT KEVIN ROBERTSON	System and method for monitoring a property

...ver más

REDES DE SENSORES PARA DETECTAR INCENDIOS

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
WO 2017177031 A1	FERNSTRUM MARVIN B	Modular and expandable fire suppression system
WO 2017203383 A1	GAETA CARMINE	Anti-sinking and anti-fire safety system for boats
WO 2017204642 A1	OUDMANS JULES RUTGER	Method for monitoring gas concentrations at a site
WO 2017190770 A1	PEDERSEN OLE MARTIN	Automatic cover detection system and method
WO 2017178574 A1	WEISSER DIETMAR	Sensor for the ventilation in a building
WO 2017192422 A1	VAVRASEK DAVID	Method and apparatus for evaluating risk based on sensor monitoring
WO 2017211481 A1	ZIEMS BERND	Hazard detector and method for transmitting a hazard signal and system comprising the hazard detector
WO 2017168199 A1	BEHBAHANI-POUR MOHAMMED JAVAD	System, apparatus, and method of preventing fuel tank explosion
WO 2017193235 A1	KANG FENGSHENG	Refrigerator with smoke alarm function
WO 2017203226 A1	BELL GAVIN	Charge carrier multiplier structure
WO 2017203385 A1	GAETA CARMINE	Anti-sinking and anti-fire emergency system for aircraft
WO 2017208060 A1	SANCHEZ COMAS ANDRES GABRIEL	Spherical device with integrated technology for assisting operations for rescuing missing persons or unreachable victims in disasters
WO 2017171986 A2	HIRSHBERG ARNON	Optical sensor shield
WO 2017172123 A1	GERBUS DAN H	Sensing technologies in alarm devices
WO 2017183495 A1	KIMURA TASUKU	Article provided with warning system
WO 2017164027 A1	HARADA KENJI	Security system
WO 2017172943 A1	ANDERSON JERRY T	Emergency exit route illumination system & methods
WO 2017196752 A1	BLACKWELL JAMES	Controlling a smoke detector by regulating battery voltage
WO 2017181090 A1	KLOC LONGIN JAMES	Node/network aggregation gateway device
WO 2017160076 A1	SHIN TAEDONG	Acoustic sensor and home appliance system having same

..ver más

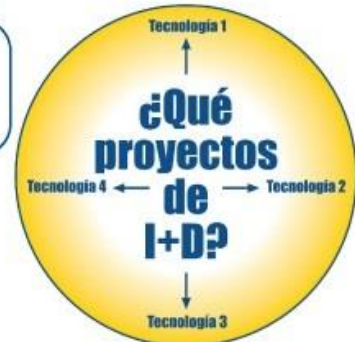| Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
WO 2017180860 A1	SCHMIDT HOWARD K	Magnetic induction based localization for wireless sensor networks in underground oil reservoirs
WO 2017187208 A1	KUZBARI SAFWAN	Tracking system
WO 2017189593 A1	GOPALAKRISHNA RAJENDRA	Responsive deception mechanisms
WO 2017178825 A1	FARRELL CHRISTOPHER CHARLES	An apparatus and a method for determining a measurement error of a displacement volumetric meter, a meter monitoring device, and a meter measurement error determining device
WO 2017191230 A1	WITTIG KLAUS	Storage logistics method
WO 2017203424 A1	DAY OWEN	A waste discharge monitor and monitoring system
WO 2017213790 A1	LAVERY RICHARD J	Arrangement for, and method of, optimizing radio frequency (rf) identification (rfid) reading performance
WO 2017214178 A1	MAHER DAVID P	Anomaly detection systems and methods
WO 2017209980 A1	BEHRINGER ADAM EDWIN	Machine intelligent predictive communication and control system
WO 2017194055 A1	NORAS HUBERT	Self-propelled monitoring device
WO 2017205717 A1	KELLY THOMAS W	Single-wire sensor bus
WO 2017189905 A1	PATTERSON HUBERT A	Method and apparatus for detecting floods and spills using li-fi
WO 2017168184 A1	ANDRITSOPOULOS FOTIOS	Method and system to deliver telematics solutions
WO 2017200131 A1	KWON TAI GIL	Wireless sensor network system capable of redistribution of access node and method therefor
WO 2017203488 A1	KANTER THEO	Distributed data collection in wireless sensor networks in which a first node can publish itself as collector or sensor data towards the other nodes
WO 2017205770 A1	HOLLAND SHANNON	System and method for establishing secure communication channels with internet things (iot) devices
WO 2017184269 A1	HASSELBECK MICHAEL P	Acoustic leak detector
WO 2017194929 A1	HUTCHINSON GUY	Connector
WO 2017201085 A1	JORDAN LAWRENCE B	Real-time data acquisition and recording system
WO 2017205365 A1	CESPEDES DAVID A	Distributed seismic node computing
WO 2017199180 A2	JUST PETER	Access system and container for communal objects
WO 2017205508 A1	BARRY RONALD	Subsurface seismic deployment system and method
WO 2017190069 A1	GORR BRYAN	Automated fluid condition monitoring multi-sensor, transceiver and status display hub
WO 2017209497 A1	LEE HEUNG NO	Sensing data processing device and data processing method
WO 2017213552 A1	ANTONOV IGOR KONSTANTINOVICH	Device for the contactless inspection of underground pipelines
WO 2017196991 A1	SILVERSTEIN BRIAN	Systems, methods, and devices for utilizing radar with smart devices
WO 2017193237 A1	KANG FENGSHENG	Refrigerator with monitoring and alarming functions
WO 2017161026 A1	LAZARO ORLANDO	Energy harvesting sensor
WO 2017171876 A1	CORRION BRADLEY WILLIAM	Iot sensor fusion
WO 2017169276 A1	OCHIAI KATSUHIRO	Plant management system, plant management method, plant management device, and plant management program
WO 2017182181 A1	BHAT SANJAY	System and methods for cloud-based monitoring and control of physical environments
WO 2017189575 A1	MORRIS MICHAEL	Optical link management
WO 2017179608 A1	MATSUNAGA KENICHI	Timing synchronization method, sensor embedding terminal, and sensor network system
WO 2017188964 A1	SCOGIN MATTHEW	Distributed sensor systems and methods
WO 2017203404 A1	VAIDYA MEHUL	A device and method for monitoring the health of a control system
WO 2017155775 A1	CRONIN JOHN	Method and system of analyzing and controlling a cold chain system

WO 2017161078 A1	TRANI JAMES	Method and apparatus for tiered analytics in a multi-sensor environment
WO 2017197320 A2	BRANCH CLINTON A	Wireless environmental sensor
WO 2017210441 A1	JONES NICHOLAUS A	Cart activity sensor data with point of sale data to determine tasks
WO 2017159006 A1	YAMATO TETSUJI	Data-flow control device and data-flow control method
WO 2017172504 A1	MOLDOVEANU NICOLAE	Marine seismic acquisition system
WO 2017184702 A1	CROUTHAMEL L ROBERT	Worker safety system
WO 2017201345 A1	MCGRANAHAN NICHOLAS J	Systems and methods for equipment performance modeling
WO 2017193223 A1	HASSANI ALIREZA	Optical fiber sensor
WO 2017157987 A1	XUE RUIFENG	Air purifier and air purification method
WO 2017205859 A1	MALANOSKI ANTHONY P	Analyzing reflectance based color changes in sensing applications
WO 2017197275 A1	GRAF ROLAND	Sensory networking device and method of use
WO 2017204866 A1	NOURBAKHSH ILLAH	Dense data acquisition, storage and retrieval
WO 2017201544 A1		A distribution network for monitoring, controlling and optimizing flow of liquid beverage products delivered to customers via containers
WO 2017177150 A1	VÄLIMAA TUUKKA SAMUEL	Method and system for testing fluid filled pipes, tubes and other such vessels using sound and vibration
WO 2017196821 A1	CELLA CHARLES HOWARD	Methods and systems for the industrial internet of things
WO 2017195089 A1	SARANGI SANAT	Method and system for achieving auto-adaptive clustering in a sensor network
WO 2017152619 A1	SUN WEI	Terminal antitheft alarm method and device
WO 2017156718 A1	XU CONG	Operating mode switching method, wireless sensor and system
WO 2017155565 A1	TURNBULL ROBERT C	System and method for vibration compliance monitoring
WO 2017180860 A1	SCHMIDT HOWARD K	Magnetic induction based localization for wireless sensor networks in underground oil reservoirs
WO 2017187208 A1	KUZBARI SAFWAN	Tracking system

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¿Qué proyectos de I+D?

Tecnología 1
Tecnología 4
Tecnología 2
Tecnología 3

LANZAMIENTO

¿Cuál es el estado del arte?

Los ITPs** de la OEPM nos han ahorrado horas de revisión bibliográfica para definir el punto de partida de nuestros proyectos de I+D.

GRIFOLS 75 ANNIVERSARY

EJECUCIÓN

Los ITPs** de la OEPM detectaron solicitudes de patente relevantes cuando estábamos a mitad del proyecto y gracias a ello pudimos reconducir nuestra investigación.

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¿Y si la competencia se nos adelanta?

CONCLUSIÓN

¿Son patentables nuestros resultados?

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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