Boletín VT

REDES DE SENSORES INALÁMBRICAS

27

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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:

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

NIPO: 073-15-019-2

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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 2016128332	SHEARWELL DATA LTD	Applicator for animal identification tags
WO 2016128577	HORSCH LEEB APPLICATION SYSTEMS GMBH	Device for discharging liquids, and method for controlling the movement of at least two extension arms of an agricultural field sprayer
WO 2016130182	DELTA FIVE LLC	Insect traps and monitoring systems
WO 2016105222	EASY FUNDS SP Z O O	Method and system for vertical cultivation of plants in plant pots, a device for vertical cultivation of plants in plant pots and a special plant pot
WO 2016137317	TREE OF KNOWLEDGE PATENTS B V	An infrared sensor unit, a method and a computer program product
WO 2016113330	HELIOSPECTRA AB	Method and system for growth status determination of a plant
WO 2016130721	AEROVIRONMENT INC	Survey migration system for vertical take-off and landing (vtol) unmanned aerial vehicles (uavs)
WO 2016116888	UNIV RAMOT	Agricultural robot
WO 2016094986	VALE COOPERATIVA AGROINDUSTRIAL C	Automated and self-sustaining system and method for producing aquaculture derivatives
WO 2016122989	ARGENTO ONOFRIO	Indoor hydroponics systems
WO 2016138075	INFINITE HARVEST INC	Method and system for hydroculture
WO 2016103079	CASTRO LISBOA PABLO	System and device for monitoring the reproductive activity of animals
WO 2016110832	AGRA SYSTEMS LTD	Systems and methods for agricultural monitoring
WO 2016096526	CONTINENTAL AUTOMOTIVE GMBH	Method for determining a weed percentage and agricultural control device
WO 2016118503	ELWHA LLC	Systems and methods for pruning plants
WO 2016122300	SANCHEZ AROCHA OCTAVIO	Method and device for estimating individual stress in cattle
WO 2016125164	VERIFOOD LTD	Spectrometry system applications
WO 2016119751	POSITEC POWER TOOLS SUZHOU CO	Intelligent horticulture system and external device in communication therewith
WO 2016090414	UNIV SYDNEY	Automatic target recognition and dispensing system
WO 2016112138	SKYDROP HOLDINGS LLC	Irrigation flow sensor
WO 2016133802	EVOQUA WATER TECH LLC	Rotating spray device for water distribution on media bed of a biofilter
WO 2016109495	UNIV NEW YORK	Systems and methods for oxygen sensing
WO 2016118970	TEN MEDIA LLC DBA TEN AG TECH CO	Method and system for monitoring food packaging operations and collection and dissemination of data related thereto
WO 2016123201	UNIV PENNSYLVANIA	Systems, devices, and methods for robotic remote sensing for precision agriculture

WO 2016134128	FOREVER OCEANS CORP	Automated aquaculture harvesting system
WO 2016112136	SKYDROP HOLDINGS LLC	Systems, methods, and devices for wireless irrigation control

...ver más

REDES DE SENSORES PARA ENTORNOS URBANOS O PÚBLICOS

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
WO 2016124917	WI INNOVATE LTD	Wireless control and sensing apparatus and method for an emergency luminaire
WO 2016129715	JUBIX	Air quality prediction and management system for early detection of environmental disasters
WO 2016111852	CISCO TECH INC	Dynamically adjusting network operations using physical sensor inputs
WO 2016122002	CT INTEGRATED SMART SENSORS FOUNDATION	Method and system for managing battery operation sensor
WO 2016111540	SAMSUNG ELECTRONICS CO LTD	Method and apparatus for processing sensor information
WO 2016137609	INTEL CORP	Sensor hub method and apparatus for an electrical outlet
WO 2016105093	SAMSUNG ELECTRONICS CO LTD	Method and apparatus for operating a security system
WO 2016113447	UNIV SEVILLA	Distributed wireless system and method for the classification and localisation of failures in an underground electrical distribution network
WO 2016126643	ARTICMASTER INC	Energy saving hid lamp
WO 2016091637	CONTEXTWISE BVBA	A battery operated device, a cloud application and the related methods for transmitting/receiving data messages over a low throughput network
WO 2016134015	CHRINTEC LLC	Gas sampling and management system
WO 2016130804	UNIV MASSACHUSETTS	Wireless roadway sub-surface sensing system
WO 2016112006	PASSPORT SYSTEMS INC	Intelligent server in a system of networked sensors
WO 2016100240	ZTE CORP	Techniques for operating a distributed communication network

...ver más

REDES DE SENSORES PARA DETECTAR INCENDIOS

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
WO 2016135448	BAE SYSTEMS PLC	Emergency guidance system and method
WO 2016137075	SEOUL NAT UNIV R&DB FOUND	Safety device mounted on fire extinguisher and safety service providing method using same
WO 2016142045	AIRBUS DS GMBH	Tracking in an indoor environment
WO 2016135642	SMITH GEOFFREY	Fire prevention
WO 2016099897	MICROSOFT TECHNOLOGY LICENSING LLC	3d mapping of internet of things devices
WO 2016100295	TYCO FIRE & SECURITY GMBH	Self-sustaining energy harvesting system
WO 2016109144	GOOGLE INC	Situationally aware alarm
WO 2016137896	ZHANG ZHE	Monitoring device
WO 2016109024	GOOGLE INC	Systems and methods of providing status information in a smart home security detection system
WO 2016113547	MBDA UK LTD	Building monitoring system
WO 2016130577	TYCO FIRE & SECURITY GMBH	Method and system for controlling low energy links in wireless sensor networks
WO 2016109319	GOOGLE INC	Intelligent object-based alarm system
WO 2016097341	MINIMAX GMBH & CO KG	Alarm valve station of a fire extinguishing system, in particular a sprinkler or spray water extinguishing system, and fire extinguishing system
WO 2016098914	CICLIFE LTD	Voice alarm device of ship, and method therefor
WO 2016101065	LINKS HOME AUTOMATION INC Q	Method and system for determination of false alarm
WO 2016109062	GOOGLE INC	Premises management system with prevention measures
WO 2016111916	AFERO INC	System and method for implementing internet of things (iot) remote control applications
WO 2016116988	PANASONIC IP MAN CO LTD	Communications device, load control system, and load control device
WO 2016135357	DE LA SERNA PARADA ALBERTO	System providing multiple services using sensors with central control unit for vessels
WO 2016132734	NEC CORP	System for monitoring event related data
WO 2016136434	HOCHIKI CO	System
WO 2016123491	QUALCOMM INC	Route determination using neighbor awareness network devices

..ver más

OTRAS REFERENCIAS

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
WO 2016145238	ELEMENTAL MACHINES INC	Method and apparatus for environmental sensing
WO 2016103065	HUSQVARNA AB	Robotic vehicle with adjustable operating area
WO 2016139293	PYNK SYSTEMS S L	Interactive office desk and system
WO 2016103164	HUSQVARNA AB	Garden street view
WO 2016120445	RAUTARUUKKI OYJ	Condition monitoring of building element or building structure
WO 2016135688	SMART STRUCTURES SOLUTIONS S R L	Structural integrity monitoring device and method based on wireless sensor network
WO 2016141345	EVA SMART SHOWER LLC	Systems and methods for controlling water flow
WO 2016135436	SAFEWELL SOLUTIONS LTD	Breathing air system
WO 2016103189	HUSQVARNA AB	Weather collection and aggregation via robotic vehicle
WO 2016133675	QUALCOMM INC	Automating customer service in an internet of everything environment
WO 2016103068	HUSQVARNA AB	Robotic vehicle grass structure detection
WO 2016138107	SIEMENS IND INC	Variable air volume modeling for an hvac system
WO 2016097900	HUSQVARNA AB	Robotic vehicle learning site boundary
WO 2016102337	KONINKL PHILIPS NV	Measurements and calibration utilizing colorimetric sensors
WO 2016119010	EMBERTEC PTY LTD	Sensor hub with power manager
WO 2016098040	HUSQVARNA AB	Robotic vehicle with automatic camera calibration capability
WO 2016118796	INTERFACE INC	Floor covering system with sensors
WO 2016102028	HONEYWELL INT INC	Humidity sensing system
WO 2016107976	TEKNOLOGIAN TUTKIMUSKESKUS VTT OY	Passive wireless sensing with identification
WO 2016094946	INFORMATION IS POWER PTY LTD	System and method for identifying and calibrating a sensor
WO 2016097891	HUSQVARNA AB	Robotic vehicle for detecting gps shadow zones
WO 2016103071	HUSQVARNA AB	Lawn monitoring and maintenance via a robotic vehicle
WO 2016109889	NYCE SENSORS INC	Hinge with complementary wireless sensor
WO 2016113884	FUJITSU LTD	Control apparatus, control method, and control program
WO 2016122489	HEWLETT PACKARD ENTPR DEV LP	Detecting anomalous sensor data
WO 2016117021	HITACHI LTD	Machine diagnosis device and machine diagnosis method
WO 2016126306	SIKORSKY AIRCRAFT CORP	Self-powered multi-functional structural health monitoring sensor
WO 2016095694	UNIV JIANGNAN	Improved source localization algorithm in which sensor error is present
WO 2016115528	WESTERNGECO LLC	Quality control for use with seismic surveys
WO 2016136989	FUJIKURA LTD	Sensor node and method for controlling sensor node
WO 2016137848	PROPHECY SENSORS LLC	Internet of things based determination of machine reliability and automated maintainenace, repair and operation (mro) logs
WO 2016115438	IND SCIENT CORP	Modular gas monitoring system
WO 2016121719	OMRON TATEISI ELECTRONICS CO	Sink node, sensor network system, information collecting method and information collecting program
WO 2016122561	HEWLETT PACKARD ENTPR DEV LP	Synthesizing a graph
WO 2016124223	ERICSSON TELEFON AB L M	Brokering service apparatus and method therein for assisting roaming in multiple mesh networks.
WO 2016137536	SIKORSKY AIRCRAFT CORP	Compressive wireless sensing for rotor loads and motion

WO 2016098124	CHANDRAN C S SATHISH	Intelligent (smart) cabinets, drawers and refrigerator arrays allow remote monitoring and reporting of commodities inside from the internet (mobile and web applications)
WO 2016108051	XEROS LTD	Monitoring system
WO 2016109357	GOOGLE INC	Blocked sensor detection and notification
WO 2016115002	3M INNOVATIVE PROPERTIES CO	Systems and methods for selecting grid actions to improve grid outcomes
WO 2016098372	ROHM CO LTD	Electrode for limiting current type gas sensors, method for producing same, limiting current type gas sensor, method for manufacturing limiting current type gas sensor, and sensor network system
WO 2016101364	HUAWEI TECH CO LTD	Data packet transmission method and apparatus in wireless local area network
WO 2016137112	INDUSTRY-ACADEMIC COOP FOUND GYEONGSANG NAT UNIV	Time delay-improved, low-complexity in-network computing device and method
WO 2016095692	UNIV JIANGNAN	Method for improving ant colony optimization sensor-network cluster head
WO 2016123239	DRAGONFLY TECHNOLOGY INC	Systems and methods for providing wireless sensor networks with an asymmetric network architecture
WO 2016112631	YUTOU TECHNOLOGY HANGZHOU CO LTD	Light control system and method
WO 2016115071	UNIV CENTRAL FLORIDA RES FOUND	Passive wireless sensor including piezoelectric mems resonator
WO 2016098023	HUSQVARNA AB	Multi-sensor, autonomous robotic vehicle
WO 2016103271	GUARDIAN OPTICAL TECHNOLOGIES LTD	System and method for detecting surface vibrations
WO 2016094274	OMS INVESTMENTS INC	Electronic bait station monitoring system
WO 2016103047	4IIII INNOVATIONS INC	A wireless sensor pod uses trigger events for pairing and testing
WO 2016109563	WAL MART STORES INC	System and method for monitoring gas emission of perishable products
WO 2016097897	HUSQVARNA AB	Robotic patrol vehicle
WO 2016110753	ECO NET LTD	Sensing of water quality
WO 2016122279	SAMSUNG ELECTRONICS CO LTD	Method and device for managing system information block, physical broadcast channel in wireless communication network
WO 2016099839	INTEL CORP	Cooperative security in wireless sensor networks
WO 2016123249	DRAGONFLY TECHNOLOGY INC	Systems and methods for providing communications within wireless sensor networks based on a periodic beacon signal
WO 2016105717	INTEL CORP	Technologies for determining a threat assessment based on fear responses
WO 2016115388	SOLON MFG COMPANY	Gas measurement apparatus
WO 2016123686	COGNITIVE SYSTEMS CORP	Locating the source of a wireless signal
WO 2016100140	ZAN COMPUTE INC	Smart facility management platform
WO 2016145238	ELEMENTAL MACHINES INC	Method and apparatus for environmental sensing
WO 2016103065	HUSQVARNA AB	Robotic vehicle with adjustable operating area

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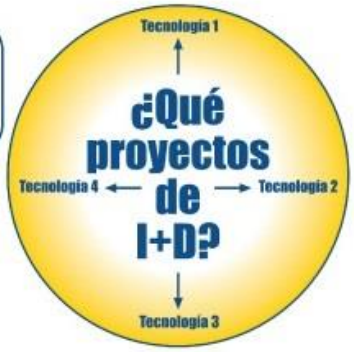

LANZAMIENTO

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

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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.

CSIC

CONCLUSIÓN

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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