Boletín VT

REDES DE SENSORES INALÁMBRICAS

34

2.º trimestre 2018

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:

NIPO: 088-17-027-2

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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 2018073060 A1	PETERS OLE	Planning and implementing agricultural measures
WO 2018092135 A1	MARGALIT NIR	Method and system for crop yield estimation
WO 2018091649 A1	EBERSPACH MICHAEL	Detector for optically detecting at least one object
WO 2018093523 A1	JOHANSEN STEVEN	Method and apparatus for compensation of wind effects on measured weights
WO 2018104865 A1	MARQUES CORREIA RICARDO JOÃO LUÍS	Passive sensor system powered by wireless energy transmission
WO 2018107245 A1	CLARK ANTHONY	Detection of environmental conditions
WO 2018084370 A1	LEE MEONG HUN	System for identifying worker in smart greenhouse by using beacon
WO 2018100877 A1	KUBOTA YOSHIYASU	Display control device, display control method, and program
WO 2018105222 A1	YAJIMA MASAKAZU	Display control device, display control method, and program
WO 2018084371 A1	LEE MEONG HUN	Iot-based agricultural water monitoring system
WO 2018057647 A1	PIERSON SHAD	Methods and compositions for detecting analytes
WO 2018084372 A1	LEE MEONG HUN	Automatic hog feeder
WO 2018098738 A1	XIONG YICHONG	Monitoring method and device base on aerospace multi-source remote sensing data
WO 2018105400 A1	HIRAMATSU TOSHIFUMI	Path generation system
WO 2018074928 A1	KARABACK DEVREZ MEHMET	Probe for determining soil properties
WO 2018081853 A1	ALLEN SIMON	Controlling agricultural production areas
WO 2018112272 A1	HICKS RONALD	Livestock management
WO 2018074917 A2	BUIJS MARTINUS CORNELLS JOHANNES	Animal farm system and method of generating barn map information of said animal farm system
WO 2018100976 A1	OKADA TAKUYA	Chilling unit system, temperature management system, remote controller, and control method
WO 2018105873 A1	MYUNG KWANGMIN	Soil sensor device using weather information for improving accuracy of error detection, control method thereof, and recording medium having computer program recorded thereon
WO 2018067625 A1	LAFIAN JESSE	Tensiometer apparatus and method
WO 2018085095 A1	KOCH DALE	Work layer imaging and analysis for implement monitoring, control and operator feedback
WO 2018049189 A1	SHAKOOR NADIA	Integrated field phenotyping and management platform for crop development and precision agriculture
WO 2018064497 A1	MUNEEPEERAKUL CHITSOMANUS P	Crop indicator determination using multiple rainfall index analysis
WO 2018062885 A1	BARBER ARTHUR PETER III	Controlling ultraviolet intensity over a surface of a light sensitive object
WO 2018068042 A1	MASSEY SCOTT	Plant growing apparatus and method
WO 2018071727 A1	SAEZ ORLANDO	System for monitoring crops and soil conditions

WO 2018097366 A1	PARK JUNG HO	Fish catching device and catching unit included therein
WO 2018084754 A1	AL ABDULLAH MOHAMMAD	Subsurface irrigation device
WO 2018085452 A1	JENNINGS WILLIAM E	Systems and Methods for Soil Modeling and Automatic Irrigation Control
WO 2018056102 A1	OGAWA TETSU	Information processing device, information processing method, program, and sensing device
WO 2018100555 A1	LEFEBVRE ALAIN	Farrowing system with piglet birth detection and method for operating the same
WO 2018049289 A1	RICHT RYAN	Systems for adjusting agronomic inputs using remote sensing, and related apparatus and methods
WO 2018048782 A1	CANTRELL ROBERT L	Apparatus and method for monitoring a field
WO 2018057316 A1	PEETERS ERIC	Specialized trap for ground truthing an insect recognition system
WO 2018068036 A1	ROSZTOCZY JOSEPH F	Deriving farming operations from gps location data
WO 2018081849 A1	JENSEN ASHLEY	System and device for monitoring and controlling agricultural produce
WO 2018098190 A1	CHEN YE	Determining intra-field yield variation data based on soil characteristics data and satellite images
WO 2018050137 A1	EBERIUS MATTHIAS	Device for killing and weakening plants and other organisms
WO 2018045458 A1	NGUYEN MY T	Irrigation system and method
WO 2018050138 A1	EBERIUS MATTHIAS	Device for the electrocution of structures in the environment and use of said device
WO 2018062989 A2	VAN VLIET WILHELMUS PETRUS	Illumination system for greenhouses with remote monitoring
WO 2018048387 A1	BAYNES JEREMY	Systems and methods for mapping emerged plants
WO 2018058153 A2	ADAMS STEPHEN P	Method and apparatus for horticultural lighting with enhanced dimming and optimized efficiency
WO 2018051399 A1	UEJIMA TOSHIAKI	State prediction device and state prediction method
WO 2018073060 A1	PETERS OLE	Planning and implementing agricultural measures
WO 2018092135 A1	MARGALIT NIR	Method and system for crop yield estimation
WO 2018091649 A1	EBERSPACH MICHAEL	Detector for optically detecting at least one object
WO 2018093523 A1	JOHANSEN STEVEN	Method and apparatus for compensation of wind effects on measured weights
WO 2018104865 A1	MARQUES CORREIA RICARDO JOÃO LUÍS	Passive sensor system powered by wireless energy transmission

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REDES DE SENSORES PARA ENTORNOS URBANOS O PÚBLICOS

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
WO 2018106140 A1	KARNACHEV ALEXEY ALEXANDROVICH	Method for determining of a fluid supply network state
WO 2018103639 A1	ZENG NING	Network-based environment monitoring system, method, and computer readable storage medium
WO 2018093792 A1	CHOU TSUNG-KUAN A	Smart sensing network
WO 2018073075 A1	LEKSE DOMINIKA	Lighting control
WO 2018082929 A1	DE VRIES JUDITH	A lighting-system and a lighting-system control method
WO 2018091673 A1	KELLY DECLAN	Battery-powered sensor device and operating method
WO 2018054976 A1	WENDT MATTHIAS	A building automation system with servicing beacon
WO 2018070572 A1	LEE HAE-MOON	Real-time monitoring movable type sewer pipeline flowmeter
WO 2018054968 A1	RAJAGOPALAN RUBEN	Flooding localization and signalling via intelligent lighting
WO 2018060010 A1	NEILD IAN	Collection of sensor data from sensor devices
WO 2018085904 A1	DE OLIVEIRA JÚNIOR ANTONIO CARLOS	System for detecting leaks in the water supply network
WO 2018097567 A1	SHIN GYU-WEON	Lighting control device and lighting apparatus including same
WO 2018100655 A1	OGATA YUJI	Data collection system, abnormality detection system, and gateway device
WO 2018061015 A2	FLEISHMAN DAVID	A system, platform and method for constant online water quality & safety monitoring of an entire fluid system using multi-sensor units with online cross checking data analysis on remote servers with ai software and algorithms
WO 2018067316 A2	POTYRAILO RADISLAV	Systems and methods for environment sensing
WO 2018057357 A1	POTYRAILO RADISLAV ALEXANDROVICH	Systems and methods for environment sensing
WO 2018052599 A1	JAIN AMIT	Method and apparatus for enablement of location data sources during emergency positioning session
WO 2018048287 A1	CHOI BYEONG-DOO	Image processing method and device for projecting image of virtual reality content
WO 2018060802 A1	STUBY RICHARD G JR	Light sensor assembly having wireless data transfer
WO 2018053433 A1	SEMANOUKIAN EDOUARD	Apparatus, system and method for a portable personal air quality monitor
WO 2018052446 A1	MARTINEZ CANEDO ARQUIMEDES	Critical infrastructure forensics
WO 2018081670 A1	MODI SOHRAB	Video data and gis mapping for traffic monitoring, event detection and change prediction

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REDES DE SENSORES PARA DETECTAR INCENDIOS

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
WO 2018089629 A1	BIRNKRANT MICHAEL J	High sensitivity fiber optic based detection
WO 2018095707 A1	SCHELPER SEBASTIAN	Mask unit, system, and method for using a system
WO 2018089660 A1	BIRNKRANT MICHAEL J	High sensitivity fiber optic based detection
WO 2018089471 A1	BIRNKRANT MICHAEL J	High sensitivity fiber optic based detection
WO 2018089654 A1	BIRNKRANT MICHAEL J	High sensitivity fiber optic based detection
WO 2018089474 A1	BIRNKRANT MICHAEL J	High sensitivity fiber optic based detection
WO 2018097930 A1	GRABOWSKI ADAM R	Building management system with priority array preview interface
WO 2018089477 A1	BIRNKRANT MICHAEL J	High sensitivity fiber optic based detection
WO 2018110813 A1	CHOI SUNG-HWAN	Boiler having gas detection and earthquake detection function and control method therefor
WO 2018071214 A1	LI BENLIANG	Determination of the physical location of field device
WO 2018089473 A1	BIRNKRANT MICHAEL	High sensitivity fiber optic based detection
WO 2018089480 A1	PIECH MARCIN	High sensitivity fiber optic based detection
WO 2018089636 A1	BIRNKRANT MICHAEL J	High sensitivity fiber optic based detection
WO 2018091742 A1	AUGUSTIN BERTRAND	Method for managing electrical supply of a device and system for implementing said method
WO 2018069477 A1	PENNEY STEPHEN	Robotic detector test system
WO 2018075681 A1	YANG ZHIWEI	Electrochemical sensor containing an internal reference cell
WO 2018054990 A1	Ó'TUAMA SEÁN	A stand-alone overheat detection alarm device
WO 2018064822 A1	ZHOU BIN	Permeable optical fiber for gas sensing
WO 2018083902 A1	SATO MASASHI	Electricity meter and electricity meter fire outbreak location identification method
WO 2018071460 A1	BALDINO MARK STEVEN	Advanced misting delivery system, methods, and materials
WO 2018083901 A1	SATO MASASHI	Electricity meter and electricity meter fire outbreak location identification method
WO 2018076201 A1	ZHAO DONG	Systems and methods for prioritizing wireless communication
WO 2018077870 A1	VALOUCH SEBASTIAN	Nfrared optical detector with integrated filter
WO 2018079400 A1	EBATA HIROMICHI	Fire monitoring system
WO 2018089998 A1	ROSCA FLORIN	Pump cloud-based management and control technique customized hydronic components
WO 2018097270 A1	MURATA NAOYOSHI	Gas alarm, control device, and program
WO 2018062626 A1	MIN SEONG HYEON	Resource management system for measurement data acquisition between heterogeneous domains of internet of things
WO 2018063135 A1	SULYM ANDRII VOLODYMYROVYCH	System for preventing the onset of emergency situations in utility systems of premises
WO 2018070816 A2	HAN SANG CHEON	Disaster site monitoring system and method
WO 2018075560 A1	GARG PARAG KUMAR	Broadcast mode for non-paired devices and critical messages
WO 2018059883 A1	ANLIKER RETO	Hvac actuator with heating apparatus
WO 2018056598 A1	LEE JI-WON	Energy storage system and fire management method for energy storage system
WO 2018056646 A1	LEE YOUNG BOK	Automatically activated intelligent fire extinguisher

WO 2018068130 A1	STINSON SEAN	Portable personal monitor device and associated methods
WO 2018081143 A1	ELLIOTT STEPHEN	Closed loop control of electrostatic voltage and current based on humidity
WO 2018088912 A2	STENERUD JON ØIVIND	Safety detector and system for multi dwelling units and the like
WO 2018080743 A1	ALBERTH JR WILLIAM P	Thermostat with direction display and direction handoff features
WO 2018089668 A2	BIRNKRANT MICHAEL	High sensitivity fiber optic based detection
WO 2018048278 A1	PARK JUNG SIK	Method and system for controlling uicc and euicc
WO 2018056173 A1	OGAWA YUKI	Detector, isolator, warning system and control method
WO 2018088854 A1	AN BEONG-KU	Iot monitoring system using visible light communication
WO 2018075280 A1	KARG KAREN	Human-machine interface for gas valve
WO 2018089606 A1	IACOBONE SEAN	Systems and methods for providing monitoring and response measures in connection with remote sites
WO 2018057233 A1	VAPURCUYAN ALAN	Configurable remote battery monitor
WO 2018045456 A1	SZASZ RICHARD DEVIN	Face mask for filtering air and air monitoring system

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OTRAS REFERENCIAS

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
WO 2018097807 A1	CETINKAYA OKTAY	System and method of electric field energy harvesting from lighting elements for internet of things
WO 2018100383 A1	BAUGH ROBERT	Method and apparatus for improving energy efficiency of sensing technology
WO 2018091929 A1	GREEN MATTHEW	Insect light trap
WO 2018070875 A1	HOGERVORST FRANCISCUS ANTONIUS NICOLAAS	Pore pressure monitoring device and method for monitoring pore water pressure
WO 2018095509 A1	JIN WENYU	A sound processing node of an arrangement of sound processing nodes
WO 2018091113 A1	NADENAU MARCUS	Monitoring installation for monitoring a monitoring region, and monitoring station for the monitoring installation
WO 2018061326 A1	KASHIWABARA HIROSHIGE	Automatic inspection system, object to be inspected reading device for automatic inspection system, and automatic inspection system control method
WO 2018067223 A1	CRAFT KENNETH LAWRENCE	Calibration of geophone and hydrophone pairs
WO 2018078617 A1	GOERTZ MANUEL	Method of operating a sensor network and system therefor
WO 2018098748 A1	REN ZHI	Communication method in distributed network, node, and system
WO 2018071695 A1	HU JIA	Fall protection equipment event generation and monitoring
WO 2018101504 A1	JI YOUNG MIN	Method and system for generating metadata for service mashup
WO 2018102061 A1	CELICOURT PAUL	Integration of transducer data collection
WO 2018100925 A1	MISUMI SHUICHI	Matching device, terminal, sensor network system, matching method, and matching program
WO 2018100720 A1	ITO NAOKI	Data collection apparatus and data collection program
WO 2018105239 A1	KADOTA RYOJI	Sensing system and sensor device
WO 2018106278 A1	HOUCHENS BRENT CHARLES	Automated method for environmental hazard reduction
WO 2018049552 A1	YANG RONG	Method and apparatus for controlling network sensors
WO 2018056716 A1	LEE JU HWAN	Marine search and rescue system utilizing v-pass-based personal location transponder, and search control method thereof
WO 2018080856 A1	ANDERSON SHAWN W	Integration of online and offline control valve data
WO 2018084778 A1	JOHANSSON NICKLAS	Positioning procedure for relaxed mobility iot devices
WO 2018085949 A1	HOWE WILSON	Vibration-analysis system and method therefor
WO 2018098737 A1	REN ZHI	Method for selecting cluster head in distributed network, node, and system
WO 2018098747 A1	REN ZHI	Communication method in distributed network, node, and system
WO 2018105458 A1	ITO YUICHI	Wireless sensor system, wireless sensor terminal, and data collection method
WO 2018105871 A1	MYUNG KWANG MIN	Device for managing weather information using fine dust sensor, method thereof, and recording medium having computer program recorded thereon
WO 2018106277 A1	WINSTON JOSEPH BLAKE	Intelligent, real-time response to changes in oilfield equilibrium
WO 2018079126 A1	TERUMOTO KOJI	Earthquake sensing module and earthquake sensing system
WO 2018098301 A1	KINNEY ABRAHAM JOSEPH	Detection of authorized user presence and handling of unauthenticated monitoring system commands
WO 2018098749 A1	REN ZHI	Message broadcasting method in distributed network and node
WO 2018105784 A1	JIN BYUNG JIN	Home energy management system using a plurality of sensors
WO 2018104892 A2	CHARTRAND PATRIK	Method and system for measuring, analyzing and transmitting sensor data
WO 2018104960 A1	CHAWALA SAHIL	Fluid gauging device
WO 2018083710 A2	GOPALAN ANUSH	An improved management and internetworking of devices to collect and exchange data without requiring interaction
WO 2018098745 A1	REN ZHI	Communication method in distributed network, node, and system
WO 2018098721 A1	XIONG YICHONG	Environment data monitoring method and system
WO 2018067389 A1	SHARBER DUSTIN	Method and system for remote processing and analysis of industrial asset inspection data

WO 2018085567 A1	LI CHENGBO	Use nuos technology to acquire optimized 2d data
WO 2018096472 A1	ALTAY CAN	Wireless backhaul management of sensor networks via programmable ran controller
WO 2018105872 A1	MYUNG KWANG MIN	Device for detecting abnormalities of weather sensor using composite determining, method thereof, and recording medium having computer program recorded thereon
WO 2018054463 A1	KERÄNEN ARI	Methods and apparatus for communication
WO 2018068692 A1	LV XINJIE	System, method and computer program product for fault detection and location in power grid
WO 2018089048 A1	PADGETT JOHN	Wireless guest engagement system
WO 2018096344 A2	NANCEKIEVILL ALEXANDER	Systems and methods for remotely monitoring the cryogenic processing of samples
WO 2018045544 A1	FAN JUNJUN	Environmental parameter measurement system
WO 2018085226 A1	WATTWOOD JAMES A	Antenna monitoring system including cloud based server communication via cellular telephone transceiver and related methods
WO 2018098752 A1	REN ZHI	Message broadcast method for distributed network and node
WO 2018101103 A1	TANIGUCHI KOICHI	On-demand service provision system and on-demand service provision method
WO 2018098759 A1	REN ZHI	Method for selecting cluster head in distributed network, node, and system
WO 2018102623 A1	NUPNAU LARS	Ballast water management system
WO 2018066687 A1	ISHIBASHI KOICHIRO	Wireless sensor device and wireless sensor system
WO 2018077770 A2	KILIAN GERD	Optimized hopping patterns for different sensor nodes and variable data lengths, based on the telegram splitting transmission method
WO 2018078218 A1	TANUTAMA MIKHAEL	Method, apparatus and computer program product for providing sensor data collection and sensor configuration
WO 2018063476 A1	WHITE CHRISTOPHER	Multi-location tool sensing system
WO 2018068055 A1	GREENE CHARLES E	Automated system for lighting control
WO 2018076121 A1	LIU YU	System and method for indirectly monitoring one or more environmental conditions
WO 2018066139 A1	KURIHARA KOJI	Communication device, communication system, and communication control method
WO 2018067275 A1	SILVA GABRIEL	Maintenance condition sensing device
WO 2018090018 A1	KERZNER DANIEL TODD	Doorbell call center
WO 2018049357 A1	CHAKKLAKAL FRANCO A	Automated re-melt control systems
WO 2018052433 A1	ROSCA JUSTINIAN	Generation of failure models for embedded analytics and diagnostic/prognostic reasoning
WO 2018053564 A1	BUHAGIAR STEVEN LESLIE JOSEPH	Breathing apparatus indicator device
WO 2018084884 A1	SWANSON RICHARD SCOTT	Networked system for processing sensor data and external data for an ad server
WO 2018056976 A1	DAI BIN	Methods and systems for obtaining high-resolution spectral data of formation fluids from optical computing device measurements
WO 2018072030 A1	SELLATHAMBY CHRIS	Systems and methods for early warning of seismic events
WO 2018048351 A1	MATHUR ADITYA	Defense system and method against cyber-physical attacks
WO 2018065671 A1	YLI-KOVERO RISTO TAPIO	Sauna monitoring system and method
WO 2018052449 A1	DONDERICI BURKAY	Method of detecting substance saturation in a formation
WO 2018097807 A1	CETINKAYA OKTAY	System and method of electric field energy harvesting from lighting elements for internet of things
WO 2018100383 A1	BAUGH ROBERT	Method and apparatus for improving energy efficiency of sensing technology

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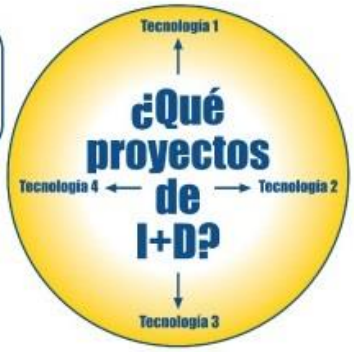

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Los ITPs** de la OEPM nos han ahorrado horas de revisión bibliográfica para definir el punto de partida de nuestros proyectos de I+D.

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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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