

# Boletín VT

## REDES DE SENSORES INALÁMBRICAS

# 24

4.º trimestre 2015

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: 073-15-019-2

## 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

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
<a href="#">WO 2015144763</a>	NORDIC GAMEKEEPER AB	Control unit for game or fish feeder
<a href="#">WO 2015145351</a>	SUN R	Electricity generation method adapted to crops
<a href="#">WO 2015142190</a>	MACKENZIE RES GROUP LTD	A calibration device, a spraying system and a method of calibration
<a href="#">WO 2015185843</a>	BIORET AGRI LOGETTE CONFORT	Comfort mattress for rearing enclosure
<a href="#">WO 2015140981</a>	CHUGAI TECHNOS CORP	Carbon dioxide above-ground-leakage monitoring system
<a href="#">WO 2015154798</a>	NXP BV	A controller for a horticultural lighting system
<a href="#">WO 2015137622</a>	KOREA INST SCI & TECH	Automated plant state analyzing apparatus and plant analyzing method using same
<a href="#">WO 2015148902</a>	AGCO CORP	Method for estimating feed quality of alfalfa as it is cut
<a href="#">WO 2015132208</a>	AVIA GIS	Method for the profiling of pests and for the determination and prediction of associated risks and means for adapted pest control
<a href="#">WO 2015153779</a>	TEKWEAR LLC	Systems, methods, and apparatuses for agricultural data collection, analysis, and management via a mobile device
<a href="#">WO 2015164497</a>	BROUTIN FARAH JENNIFER	Method and apparatus for plant growth
<a href="#">WO 2015185063</a>	WISECON AS	Pest control device with communication means
<a href="#">WO 2015177382</a>	SIMTELIGENCE SPRL	Method and system for controlling and communicating the statuses of insect bait stations
<a href="#">WO 2015177715</a>	FISKARS OYJ ABP	Soil moisture sensor
<a href="#">WO 2015156031</a>	ROHM CO LTD	Communication terminal and wireless sensor network system
<a href="#">WO 2015157851</a>	MASITEK INSTR INC	Systems, methods, devices and computer readable medium for real and near-real time sensor data capture and analysis
<a href="#">WO 2015173837</a>	VAKI FISKELDISKERFI HF	Concentration control of living organisms in fluid
<a href="#">WO 2015185899</a>	UNIV NOTTINGHAM TRENT	Beehive monitoring
<a href="#">WO 2015177741</a>	CONSEJO NAC INVEST CIENT TEC	Method for monitoring, measuring and assessing grazing and rumination activities of ruminants and device for performing
<a href="#">WO 2015166292</a>	FENDRIK PÉTER	Device and fence for controlling the queen bee's egg-laying process
<a href="#">WO 2015166493</a>	YISSUM RES DEV CO	Method and system for characterizing plant behavior
<a href="#">WO 2015164791</a>	CNH IND AMERICA LLC	System and method for sensor-based crop management
<a href="#">WO 2015181155</a>	UNIV DANMARKS TEKNISKE	Optical sensor for measuring humidity, strain and temperature
<a href="#">WO 2015167914</a>	UNIV CLEMSON	Optical system for measuring particle characteristics
<a href="#">WO 2015173682</a>	ECO NET LTD	Digital sports fishing

[...ver más](#)

## REDES DE SENSORES PARA ENTORNOS URBANOS O PÚBLICOS

Nº PUBLICACIÓN SOLICITANTE CONTENIDO TÉCNICO

<a href="#">WO 2015132717</a>	KONINKL PHILIPS NV	Intelligent lighting system with predictive maintenance scheduling and method of operation thereof
<a href="#">WO 2015136400</a>	KONINKL PHILIPS NV	City data marketplace
<a href="#">WO 2015150855</a>	BASALAMAH ANAS M	A method and system for crowd sensing to be used for automatic semantic identification
<a href="#">WO 2015158616</a>	HERE GLOBAL BV	Method and apparatus for creating an origin-destination matrix from probe trajectory data
<a href="#">WO 2015144553</a>	KONINKL PHILIPS NV	Locating a portable device based on coded light
<a href="#">WO 2015150854</a>	BASALAMAH ANAS	Method and process for autonomous human data muling using electronic communication devices
<a href="#">WO 2015159101</a>	AIRBASE SYSTEMS LTD	A method and system for analysing environmental data
<a href="#">WO 2015158998</a>	BULL SAS	Air quality metrology system
<a href="#">WO 2015180768</a>	ERICSSON TELEFON AB L M	A method and a processing device for distributed network monitoring
<a href="#">WO 2015184440</a>	PLACEMETER INC	System and method for activity monitoring using video data
<a href="#">WO 2015157844</a>	COTE KRISTY	Sprinkler apparatus and system for irrigation
<a href="#">WO 2015184467</a>	REYLABS INC	Systems and methods involving mobile linear asset efficiency exploration, monitoring and/or display aspects
<a href="#">WO 2015183925</a>	ENERSPHERE COMM LLC	Small cell communications pole, system, and method
<a href="#">WO 2015132717</a>	KONINKL PHILIPS NV	Intelligent lighting system with predictive maintenance scheduling and method of operation thereof

[...ver más](#)

## REDES DE SENSORES PARA DETECTAR INCENDIOS

Nº PUBLICACIÓN SOLICITANTE CONTENIDO TÉCNICO

<a href="#">WO 2015145684</a>	HITACHI IND EQUIPMENT SYS	Communication device and test device
<a href="#">WO 2015138740</a>	AUGUST HOME INC	BlE/wifi bridge that detects signal strength of bluetooth le device at a dwelling
<a href="#">WO 2015179347</a>	CARRIER CORP	Wide-area chamberless point smoke detector
<a href="#">WO 2015148563</a>	OSRAM SYLVANIA INC	Techniques for indoor navigation with hazard avoidance via light-based communication
<a href="#">WO 2015184255</a>	OTIS ELEVATOR CO	First responder interface for emergency control
<a href="#">WO 2015181144</a>	AGT INTERNAT GMBH	System and method for registering sensors used in monitoring-systems
<a href="#">WO 2015181575</a>	SZÖCS ISTVÁN	Installed fire fighting apparatus for flammable objects
<a href="#">WO 2015162529</a>	TYCO FIRE & SECURITY GMBH	Device and apparatus for self-testing smoke detector baffle system
<a href="#">WO 2015184253</a>	OTIS ELEVATOR CO	Crowdsourcing and active learning to support evacuation of a building
<a href="#">WO 2015184217</a>	OTIS ELEVATOR CO	Occupant evacuation control system
<a href="#">WO 2015179120</a>	OOMA INC	Security monitoring and control
<a href="#">WO 2015161387</a>	TYCO SAFETY PROD CANADA LTD	Identifying persons of interest using mobile device information
<a href="#">WO 2015168243</a>	BROAN NU TONE LLC	Sensor-enabled range hood system and method
<a href="#">WO 2015175081</a>	BOKHARY SALMA YAHYA I	Emergency detection and alert device and system utilizing a mobile communication device

[..ver más](#)

## OTRAS REFERENCIAS

Nº PUBLICACIÓN SOLICITANTE CONTENIDO TÉCNICO

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
<a href="#">WO 2015137821</a>	OCTIO AS	Acoustic source system for permanent reservoir monitoring
<a href="#">WO 2015169357</a>	STATOIL PETROLEUM AS	Seismic sensor recording system
<a href="#">WO 2015154127</a>	PEST IP PTY LTD	Improved termite monitoring and control apparatus and methods of using same
<a href="#">WO 2015134937</a>	RYHORCHUK KENT W	Application environment for lighting sensor networks
<a href="#">WO 2015137758</a>	UNIV ESHA IND COLLABORATION	Sensor node and method for transmitting data of sensor node, sink node and method for transmitting data of sink node
<a href="#">WO 2015147871</a>	SICPA SECURITY INKS & SYSTEMS USA INC	Global management for oil gas assets
<a href="#">WO 2015171414</a>	CISCO TECH INC	Distributed voting mechanism for attack detection
<a href="#">WO 2015137896</a>	KOCSISTEM BILGI VE ILETISIM HIZMETLERI ANONIM SIRKETI	Data transmission method over sensor networks using controlled load consumption
<a href="#">WO 2015139125</a>	NEURIO TECHNOLOGY INC	System and method for monitoring, analyzing and acting upon electricity patterns
<a href="#">WO 2015150463</a>	DUBLIN INST OF TECHNOLOGY	Corrosion detection system and method in concrete structures
<a href="#">WO 2015158912</a>	CENTRE NAT RECH SCIENT	A differential temperature measuring device comprising surface transverse wave resonators
<a href="#">WO 2015150853</a>	FELEMBAN EMAD ABDULRAZZAK	System, apparatus and method for robust transmission of visual data through visual sensor network
<a href="#">WO 2015168199</a>	CISCO TECH INC	Distributed predictive routing using delay predictability measurements
<a href="#">WO 2015169347</a>	GRIESHABER VEGA KG	Method for encrypted data transfer in process automation technology
<a href="#">WO 2015175312</a>	CISCO TECH INC	Hierarchical hybrid batch-incremental learning
<a href="#">WO 2015161216</a>	INOVA LTD	Cable load transfer apparatus and methods for seismic data acquisition
<a href="#">WO 2015175646</a>	ION GEOPHYSICAL CORP	Ocean bottom system
<a href="#">WO 2015183553</a>	INTELLISIS CORP	Systems and methods for implementing a platform for processing streams of information
<a href="#">WO 2015146705</a>	NTN TOYO BEARING CO LTD	State monitoring system
<a href="#">WO 2015164359</a>	CISCO TECH INC	Efficient acquisition of sensor data in an automated manner
<a href="#">WO 2015179499</a>	CONVIDA WIRELESS LLC	Scalable data discovery in an internet of things (iot) system
<a href="#">WO 2015168197</a>	CISCO TECH INC	Centralized predictive routing using delay predictability measurements
<a href="#">WO 2015170144</a>	NOKIA TECHNOLOGIES OY	Techniques allowing activation and deactivation of nodes in a network
<a href="#">WO 2015187768</a>	SECURITY ORACLE INC	Defense and denial method
<a href="#">WO 2015167329</a>	TNO	System and method for monitoring a state of a fluid in an indoor space as well as a climate control system
<a href="#">WO 2015179899</a>	PESENSE PTY LTD	Pest detection
<a href="#">WO 2015167873</a>	VIVINT INC	Controlling parameters in a building
<a href="#">WO 2015168260</a>	PASDAR AMIR MEHDI	Smart sensor network for power grid health monitoring
<a href="#">WO 2015183677</a>	SIKORSKY AIRCRAFT CORP	Group scheduled sensor data acquisition in a wireless sensor system
<a href="#">WO 2015171920</a>	QATAR FOUNDATION FOR EDUCATION SCIENCE AND COMMUNITY DEV	Multi-parametric environmental diagnostics and monitoring sensor node
<a href="#">WO 2015184297</a>	PETTRAX INC	In-home pet feeding and monitoring system

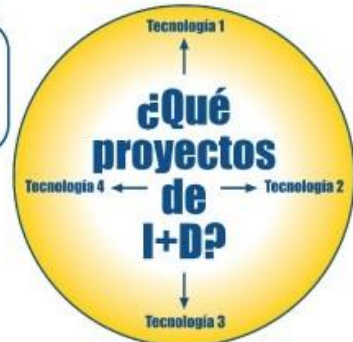
<a href="#">WO 2015168127</a>	DELTA T CORP	Environmental condition control based on sensed conditions and related methods
<a href="#">WO 2015170170</a>	CGG SERVICES SA	Source controller system for marine seismic source and method
<a href="#">WO 2015175311</a>	CISCO TECH INC	Probing technique for predictive routing in computer networks
<a href="#">WO 2015134929</a>	RYHORCHUK KENT W	Security and data privacy for lighting sensor networks
<a href="#">WO 2015173830</a>	EMERALD INFORMATION SYSTEMS LTD	Mobile monitoring system
<a href="#">WO 2015178937</a>	FUJITSU LTD	Mtc event detection and signaling
<a href="#">WO 2015174067</a>	NEC CORP	Information processing device, anomaly detection method and recording medium
<a href="#">WO 2015175617</a>	SCHNEIDER ELECTRIC BUILDINGS	Power over ethernet enabled sensor and sensor network
<a href="#">WO 2015171882</a>	VIVINT INC	Controlling a building system based on real time events
<a href="#">WO 2015174795</a>	SAMSUNG ELECTRONICS CO LTD	Method and apparatus for controlling temperature
<a href="#">WO 2015173712</a>	OGGWAY LTD	System and method for pet behavioral identification
<a href="#">WO 2015137821</a>	OCTIO AS	Acoustic source system for permanent reservoir monitoring
<a href="#">WO 2015169357</a>	STATOIL PETROLEUM AS	Seismic sensor recording system



# ¡¡Por sólo 500€ añada 150 especialistas\* a su Equipo de I+D!!



Los ITPs\*\* de la OEPM nos proporcionan información imprescindible para decidir la priorización óptima de proyectos de I+D en los que invertir.



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



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



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.



\* La OEPM cuenta con más de 150 examinadores de patentes especializados en los diversos sectores tecnológicos y en la búsqueda de información científico-técnica.

\*\* Los Informes Tecnológicos de Patentes o ITPs son estudios a la medida que incluyen una búsqueda de patentes y de literatura científica con un análisis en profundidad de los documentos más relevantes. Su coste es de 440 euros más IVA.