

# Boletín VT

## REDES DE SENSORES INALÁMBRICAS

12

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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](#)

# 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
<a href="#">WO2012165939 A1</a>	MIMOS BERHAD [MY] et al.	MICROPUMP WITH INTEGRATED GAS SENSING SYSTEM AND METHOD THEREOF
<a href="#">WO2012158995 A2</a>	LOCK INC C [US], ZIMMERMAN PATRICK R [US]	VACCINE AND HEALTH-RELATED APPLICATIONS FOR RUMINANT BREATH MONITORING SYSTEM
<a href="#">WO2012142050 A1</a>	EARTHTEC SOLUTIONS LLC [US] et al.	METHODS AND SYSTEMS FOR MONITORING CROP MANAGEMENT AND TRANSPORT
<a href="#">WO2012139053 A2</a>	PURESENSE ENVIRONMENTAL INC [US], FREY MICHELLE M [US]	EFFECTIVE ROOT ZONE USE IN CROP MANAGEMENT
<a href="#">WO2012127424 A1</a>	MORAD ERAN [IL]	THREAT CONTROL SYSTEM FOR FISH PONDS
<a href="#">WO2012123944 A1</a>	MIROBOT LTD [IL], BAREKET TAL [IL]	HUMAN ASSISTED MILKING ROBOT AND METHOD
<a href="#">WO2012138054 A2</a>	KOREA ADVANCED INST SCI & TECH [KR] et al.	HUMIDITY SENSOR, HUMIDITY-SENSING METHOD, AND TRANSISTOR FOR THE HUMIDITY SENSOR

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## REDES DE SENSORES PARA ENTORNOS URBANOS O PÚBLICOS

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
<a href="#">WO2012166878 A2</a>	CISCO TECH INC [US], TAFT JEFFREY D [US]	DISTRIBUTED DATA COLLECTION FOR UTILITY GRIDS
<a href="#">WO2012166872 A2</a>	CISCO TECH INC [US], TAFT JEFFREY D [US]	DISTRIBUTED INTELLIGENCE ARCHITECTURE WITH DYNAMIC REVERSE/FORWARD CLOUDING
<a href="#">WO2012159633 A1</a>	LIGHT AS S [DK], RASMUSSEN STEEN [DK]	SENSOR UNIT FOR INTELLIGENT STREET LAMP AND APPLICATION
<a href="#">WO2012140610 A1</a>	KONINKL PHILIPS ELECTRONICS NV [NL] et al.	HIERARCHICAL ROUTING FOR WIRELESS NETWORKS
<a href="#">WO2012140152 A1</a>	GERBEC ALEKSANDER [SI]	NETWORK COMPRISING NODES ASSOCIATED WITH OUTDOOR LIGHTING DEVICES
<a href="#">WO2012141475 A2</a>	KOREA ENVIRONMENT CORP [KR] et al.	WATER QUALITY TELEMONITORING SYSTEM
<a href="#">WO2012136853 A2</a>	ELLIOTT ADAM [IE]	IMPROVEMENTS IN AND RELATING TO ROADWAY AND STREET LIGHTING APPARATUS AND ARRANGEMENT
<a href="#">WO2012131392 A2</a>	REID DAVID [GB]	METHODS AND APPARATUS FOR IMPROVING THE INTEGRITY OF BUILDING STRUCTURES
<a href="#">WO2012129675 A1</a>	ENERGET INC et al.	A COMPUTER IMPLEMENTED ELECTRICAL ENERGY HUB MANAGEMENT SYSTEM AND METHOD
<a href="#">WO2012136561 A1</a>	E HAWLE ARMATURENWER KE GMBH [AT], MAYR MARTIN [AT]	WATER TREATMENT PLANT
<a href="#">WO2012136209 A1</a>	DANTAET AS [DK], GARNAES SVEND [DK]	A METHOD AND MEANS FOR DETECTING LEAKAGES IN PIPE INSTALLATIONS
<a href="#">WO2012136505 A2</a>	YARA INT ASA [NO] et al.	PROCESS TO TREAT INDUSTRIAL WASTEWATER - (A3) PROCESS TO TREAT INDUSTRIAL WASTEWATER IN AN ANAEROBIC REACTOR AND BY CHEMICAL OXIDATION PROCESS TO TREAT INDUSTRIAL WASTEWATER
<a href="#">WO2012129243 A1</a>	DIGITAL LUMENS INC [US] et al.	METHODS, APPARATUS AND SYSTEMS FOR PROVIDING OCCUPANCY-BASED VARIABLE LIGHTING
<a href="#">WO2012127470 A1</a>	DAYAN RAHAMIN DAN [IL]	METHOD AND SYSTEM FOR STAMPING AND MARKING FLUID IN A PIPE NETWORK FOR SMART MONITORING SYSTEMS
<a href="#">WO2012126017 A2</a>	LIQUID ROBOTICS INC [US], HINE ROGER G [US]	AUTONOMOUS WAVE-POWERED SUBSTANCE DISTRIBUTION VESSELS FOR FERTILIZING PLANKTON, FEEDING FISH, AND SEQUESTERING CARBON FROM THE ATMOSPHERE
<a href="#">WO2012125725 A1</a>	GLOBAL MRV INC [US] et al.	EMISSIONS MEASURING SYSTEM
<a href="#">WO2012120122 A1</a>	UNIV BRUXELLES [BE] et al.	METHOD FOR DETERMINING SUSPENDED MATTER LOADS CONCENTRATIONS IN A LIQUID
<a href="#">WO2012149981 A1</a>	NOKIA SIEMENS NETWORKS OY [FI], ROOKE MICHAEL JOHN [FI]	METHOD, APPARATUS, AND SYSTEM FOR PROVIDING METERING INFORMATION

[...ver más](#)

## REDES DE SENSORES PARA DETECTAR INCENDIOS

Nº PUBLICACIÓN SOLICITANTE CONTENIDO TÉCNICO

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
<a href="#">WO2012131280 A1</a>	FRANCE TELECOM [FR] et al.	DATA COMMUNICATION IN A SENSOR ARRAY
<a href="#">WO2012131191 A1</a>	FINSECUR [FR] et al.	ALARM TRIGGERING DEVICE FOR A SECURITY SYSTEM
<a href="#">WO2012131190 A2</a>	FINSECUR [FR] et al.	ALARM TRIGGERING DEVICE FOR A SECURITY SYSTEM
<a href="#">WO2012131189 A1</a>	FINSECUR [FR] et al.	ALARM TRIGGERING DEVICE FOR A SECURITY SYSTEM AND METHOD FOR INSTALLING AN ALARM TRIGGERING DEVICE
<a href="#">WO2012130670 A1</a>	SIEMENS AG [DE], KOLB DIETER [DE]	AUTOMATICALLY LOCATING FIRE ALARMS
<a href="#">WO2012141606 A2</a>	LUNCANU GABRIEL VASILE [RO]	PREVENTION, MONITORING, PROTECTION AND CONTROL SYSTEM FOR GOODS AND/OR PEOPLE THROUGH RADIO COMMUNICATIONS NETWORKS
<a href="#">WO2012138044 A2</a>	NAT UNIV CHONBUK IND COOP FOUN [KR] et al.	SYSTEM FOR MONITORING FOREST FIRES WHICH SUPPLIES POWER THROUGH HYBRID POWER GENERATION, AND METHOD FOR MONITORING FOREST FIRES

[..ver más](#)

## OTRAS REFERENCIAS

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
<a href="#">WO2012165938 A1</a>	MIMOS BERHAD [MY] et al.	NEIGHBOUR DISCOVERY-BASED ROUTING METHOD FOR WIRELESS NETWORKS
<a href="#">WO2012165747 A1</a>	UNIV KOREA RES & BUS FOUND [KR] et al.	RELAY-BASED COMMUNICATION SYSTEM AND METHOD FOR SELECTING COMMUNICATION PATH
<a href="#">WO2012163094 A1</a>	SHANGHAI RES CT WIRELESS COMM [CN] et al.	LOAD EQUALIZATION METHOD BASED ON CONVERGENCE OF SENSOR NETWORK AND CELLULAR NETWORK
<a href="#">WO2012162508 A2</a>	RAYTHEON CO [US], NAQVI WAHEEM [US]	METHOD AND APPARATUS FOR OBJECT/MATERIAL DETECTION
<a href="#">WO2012161884 A2</a>	GOOGLE INC [US], KLEIJN WILLEM BASTIAAN [NZ]	DISTRIBUTED BLIND SOURCE SEPARATION
<a href="#">WO2012152070 A1</a>	ZTE CORP [CN], MA JINGWANG [CN]	METHOD FOR COMMUNICATION BETWEEN GATEWAYS IN WSN, INITIATOR GATEWAY, AND TARGET GATEWAY
<a href="#">WO2012148257 A1</a>	MIMOS BERHAD [MY] et al.	METHOD FOR USE IN MULTI HOP WIRELESS SENSOR NETWORK
<a href="#">WO2012146801 A1</a>	UNIV SEVILLA [ES] et al.	INTELLIGENT LOCATION-FINDING METHOD USING WIRELESS SENSOR NETWORKS
<a href="#">WO2012148115 A2</a>	UNIV KOREA RES & BUS FOUND [KR] et al.	APPARATUS AND METHOD FOR CONTROLLING A BACKBONE NETWORK FOR A SENSOR NETWORK
<a href="#">WO2012147291 A1</a>	PANASONIC CORP [JP] et al.	COMMUNICATION NODE AND NETWORK NODE
<a href="#">WO2012137171 A1</a>	WI NEXT S R L [IT], DE CARNE NICOLA [IT]	METHOD FOR MANAGING A WIRELESS SENSOR NETWORK, AND CORRESPONDING SENSOR NODE, SENSOR NETWORK, AND COMPUTER PROGRAM PRODUCT
<a href="#">WO2012139735 A1</a>	FLUIDMESH NETWORKS S R L [IT] et al.	MANAGEMENT OF RADIO FREQUENCIES IN A WIRELESS OR HYBRID MESH NETWORK
<a href="#">WO2012129612 A1</a>	OGBURN DAMIAN [AU]	METHOD AND SYSTEM FOR SURVEYING OR MONITORING UNDERWATER FEATURES
<a href="#">WO2012128719 A1</a>	UNIV NANYANG TECH [SG] et al.	SENSOR DEVICE
<a href="#">WO2012125726 A1</a>	INTELLIGENT TECH INT INC [US], BREED DAVID S [US]	CARGO THEFT PREVENTION SYSTEM AND METHOD
<a href="#">WO2012131512 A1</a>	IBM [US] et al.	DISCOVERY OF A SET OF NODES IN A NETWORK
<a href="#">WO2012126211 A1</a>	ZTE CORP [CN], MA JINGWANG [CN]	METHOD AND SYSTEM FOR WIRELESS SENSOR NETWORK ACCESSING TO TELECOM NETWORK
<a href="#">WO2012126208 A1</a>	ZTE CORP [CN], MA JINGWANG [CN]	METHOD AND SYSTEM FOR WIRELESS SENSOR NETWORK CONNECTING TO TELECOMMUNICATION NETWORK
<a href="#">WO2012143931 A2</a>	TATA CONSULTANCY SERVICES LTD [IN] et al.	A METHOD AND SYSTEM FOR PRESERVING PRIVACY DURING DATA AGGREGATION IN A WIRELESS SENSOR NETWORK
<a href="#">WO2012148409 A1</a>	CUBIC CORP [US] et al.	ACCELERATED REJOINING IN LOW POWER WIRELESS NETWORKING FOR LOGISTICS AND TRANSPORTATION APPLICATIONS
<a href="#">WO2012148395 A1</a>	HEWLETT PACKARD DEVELOPMENT CO [US] et al.	SENSOR NODE OPERATIONAL MODES

<a href="#"><u>WO2012146279 A1</u></a>	TELECOM ITALIA SPA [IT] et al.	AREA MONITORING SYSTEM AND METHOD
<a href="#"><u>WO2012139288 A1</u></a>	RENESAS MOBILE CORP [JP] et al.	SENSOR NETWORK INFORMATION COLLECTION VIA MOBILE GATEWAY
<a href="#"><u>WO2012129796 A1</u></a>	SIEMENS AG [DE] et al.	A METHOD FOR CONFIGURING A WIRELESS DEVICE AND A WIRELESS DEVICE AND SYSTEM
<a href="#"><u>WO2012124850 A1</u></a>	SIRIUSOFT CORP [KR] et al.	MOBILE TERMINAL FOR PROVIDING INDOOR ENVIRONMENT INFORMATION, AND COMPUTER FOR CONTROLLING INDOOR ENVIRONMENT
<a href="#"><u>WO2012122694 A1</u></a>	NOKIA CORP [FI] et al.	METHOD AND APPARATUS FOR RESOURCE SAVING IN HETEROGENEOUS NETWORKS