

Boletín VT

REDES DE SENSORES INALÁMBRICAS

4

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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

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

WO2010134974 A2	KING L H PATENT STORE LLC	Intelligent twist-on electrical wire connector, used for joining electrical wires into an electrical connection in it, comprises an electrically insulated housing, a spiral coil, and an information device comprising a microprocessor
WO2010129168 A2	PIONEER HI-BRED INT INC	Targeting trait phenotyping of plant breeding experiment comprises performing environmental monitoring, updating crop model, determining environmental conditions, and selecting subset of plant breeding experiments
WO2010111740 A1	COMMONWEALTH SCI&IND RES ORG	Wireless sensor node e.g. for soil moisture sensor, includes onboard computer system which calculates a value associated with movement of phenomena between states of multi-state model
WO2010109340 A2	PRAD RES&DEV LTD PETROLIERS SCHLUMBERGER	Method for sequestering carbon dioxide, involves placing and monitoring carbon dioxide using real-time monitoring, analysis, and optimization system
WO2010109388 A1	KONINK PHILIPS ELECTRONICS NV SERVICES PETROLIERS SCHLUMBERGER	Mesh node for communication mesh network structure of greenhouse lighting system, has infrared (IR) transmitter and receiver which are arranged on printed circuit board to respectively transmit and receive data
WO2010111748 A1	UNIV CURTIN TECHNOLOGY SERVICES PETROLIERS SCHLUMBERGER	Processing method for processing, detecting, and notifying presence of infrequent event from large scale data set, involves identifying potential infrequent events by analyzing compressive sensed data projected into residual sub-space

[...ver más](#)

REDES DE SENSORES PARA ENTORNOS URBANOS O PÚBLICOS

Nº PUBLICACIÓN SOLICITANTE CONTENIDO TÉCNICO

WO2010135582 A2	EXPRESS IMAGING SYSTEMS LLC	Illumination system operating method for e.g. street lighting, involves adjusting level of illumination in response to determined illumination adjustment time as indicated by clock of control subsystem
WO2010135587 A1	BARKER C R HYLAND G E KEEFE R P MUELLER INT INC ZAKAS M E	Monitoring system for infrastructure has communication devices which are configured to monitor first aspect of infrastructure and second aspect of infrastructure
WO2010132677 A1	UNIV RUTGERS STATE NEW JERSEY	Method for obtaining parking availability statistics in urban area, involves server computer receiving sensor information comprising location coordinates of each vehicle, and translating sensor information to parking statistics information
WO2010131001 A1	UNIV EXETER	Method for determining presence of leaks/bursts/anomalies in water distribution system, involves feeding discrepancy into Bayesian-based inference system to determine probability of data discrepancy representing actual system anomaly
WO2010125325 A1	DIALIGHT CORP	Multi-zoned lighting apparatus for exterior lighting, e.g. street lights, has predetermined LED group which is in communication with respective external sensor that controls respective LED group when triggered
WO2010123421 A1	TELEFONAKTIEBOLAGET ERICSSON L M	Method for transmitting warning information associated with e.g. flood to mobile phone connected to eNode B of universal terrestrial radio access network, in e.g. building, involves transmitting retrieved information to user equipments

[...ver más](#)

REDES DE SENSORES PARA DETECTAR INCENDIOS

Nº PUBLICACIÓN SOLICITANTE CONTENIDO TÉCNICO

WO2010124347 A1	XTRALIS TECHNOLOGIES LTD	Light source for use in particle detection system for monitoring volume or artificial lighting to illuminate space, has beam splitter that splits light emitted from LEDs into ultraviolet or infrared portions of electromagnetic spectrum
WO2010115186 A1	SIEMENS CORP LOG LU Y	Responder support system for fire safety system, communicates with emergency control module and modeling module so as to generate interactive rescue plan based on building representation and environmental condition
WO2010117672 A2	LEWIS T	Response method for incident such as property or life-threatening conditions e.g. fire involves using electronic guide which establishes guide path that leads person away or toward incident when source of notification is near the incident
WO2010107143 A1	KOREA OCEAN RES&DEV INST	Wireless sensor network base automatic extinguishing system for use in e.g. engine room of ship, has fire observation situation display apparatus determining fire break out according to signalling information

[..ver más](#)

OTRAS REFERENCIAS

Nº PUBLICACIÓN SOLICITANTE CONTENIDO TÉCNICO

WO2010134090 A1	KUMAR P	Method for propagating data packet in wireless ad-hoc communication network, involves activating transceiver of network element in transmission mode and transmitting data packet at transmission start time
WO2010133243 A1	NEC EURO LTD	Method for supporting routing decisions in wireless mesh network, involves establishing virtual wireless mesh links between wireless mesh gateways through wired infrastructure network and determining characteristics of mesh links
WO2010132761 A2	FISHER-ROSEMOUNT SYSTEMS INC	Commissioning method for wireless field device used to monitor and control industrial and chemical processes involves writing join key to wireless field device with handheld field maintenance tool
WO2010126628 A1	CISCO TECHNOLOGY INC	Wireless base station apparatus, has controller determining location, and determining radiation pattern best suited to serve wireless client devices within coverage area based on geographical environment surrounding geographical location
WO2010126469 A1	PANDEY R RAMIN Y SYNAPSENSE CORP	Environmental conditions visualization method used in data center involves using measured environmental data values and computed environmental data values to generate visualization of environmental conditions in facility
WO2010122570 A1	COUNCIL SCI&IND RES INDIA	Tracking and monitoring system for opencast mines has programmable active radio frequency identification (RFID) transceiver devices which comprise analog to digital converter, buzzer, message switch, and light emitting diodes
WO2010113829 A1	MITSUBISHI ELECTRIC CORP MITSUBISHI ELECTRIC RES LAB	Sensor nodes localizing method for wireless sensor network in e.g. wireless sensing and monitoring application, involves averaging filtered locations of target node to determine initial estimate of location of target node
WO2010106496 A1	KONINK PHILIPS ELECTRONICS NV ZHANG J	Method for securing communications between two nodes in e.g. network, involves generating node keying material shares, where number of sub-elements is less than or equal to total number of sub-elements of keying material shares
WO2010107440 A1	INNOVATIVE WIRELESS TECHNOLOGIES INC ZHANG J	Automatically self-configuring, scalable, redundant combined wireless and wired emergency communication system used in underground hazardous environment, has wireless sensor mesh node operationally connected to one fixed mesh node
WO2010100555 A3	BOS A M CHESS DE VRIES S VAN DER WATEREN F	Distributed wireless communication providing method for wireless network i.e. wireless sensor network, involves synchronizing network times of broadcasting nodes by setting network times at nodes
WO2010100655 A3	PRAVEEN K DE VRIES S	Method for allocating logical address to nodes such as router nodes associated with wireless sensor network, involves developing logical address allocation algorithm based on optimum number of router nodes