Boletín VT

REDES DE SENSORES INALÁMBRICAS

2º trimestre 2010

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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 forestales.

De este modo, el boletín, de periodicidad trimestral, recogerá las publicaciones mas 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:

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
WO2010051652 A1	AGROSUCCESS SA	Wireless irrigation automation and control system generates alarm signals in event of anomalous events by monitoring irrigation processes
WO2010049957 A1	TECNOSEA SRL	Monitoring and control device for fish farming and/or preservation installation in e.g. open sea, has local control unit having programmable automation controller (PAC), which is connected to sensors and actuators
WO2010049939 A1	YISSUM RES DEV CO HEBREW UNIV JERUSALEM	System for identifying plant e.g. tomato plant, in uncultivated area, has sensors sensing parameters of plants, and processor displaying identifiers of identified plants on display device
WO2010046939 A1	MICROLABEN SRL	Wireless system for monitoring and controlling greenhouse, has general packet radio service interface that communicates with remote server for displaying detected environmental parameter inside greenhouse and for controlling actuator

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REDES DE SENSORES PARA ENTORNOS URBANOS O PÚBLICOS

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
WO2010059435 A2	SCHLUMBERGER CANADA LTD WESTERNGECO LLC GECO TECHNOLOGY BV GOLPARIAN D	Method for acquiring survey data related to subterranean structure, involves employing time division multiplexing for communication in which time slots assigned for uplink communication is larger than that of downlink communication
WO2010054232 A1	ADVANCED CUSTOM ENGINEERED SYSTEMS & EQU	Municipal permit system controlling method for permitting usage of waste material receptacles e.g. dumpster, involves providing tag with unique identifier, issuing permit for subject of permit and associating unique identifier with permit
WO2010051287 A1	MUELLER INT INC	Infrastructure monitoring system for, e.g., supply and use of, e.g., water has at least one monitoring device monitoring first aspect of infrastructure, and at least one monitoring device monitoring second aspect of infrastructure
WO2010047564 A2	CHANG Y S JANG Y JEONG G JUNG K H KIM A KIM A J THELEDS CO LTD	Street lamp system, has control unit controlling light source driving unit to adjust brightness of light source when wireless communications is performed between internet terminal and access point
WO2010048296 A1	BOWEN W R CLEAN TRANSPORT OLIVER R G WARE D	Multiple driver occupied passenger vehicles transporter system for use in metropolitan traffic management system, actuates terminal lane directional aides and vehicle compartments based on location and status information of vehicles
WO2010045539 A3	SIEMENS CORP	Creating method for transportation infrastructure record, used for monitoring condition of transportation infrastructure involves classifying acceleration perturbation as avoidable or unavoidable based on predetermined conditions
WO2010039700 A2	SENSE NETWORKS INC	Computer-implemented spatial/temporal event anomaly detecting method for sensor analytics, involves identifying event clusters, and storing one of event clusters having risk level above threshold risk level in data repository
WO2010034094 A1	APPLIED RADIO TECHNOLOGIES CORP CARROLL R B EDWARDS J R	Monitoring system used in waste compactor system of waste management system includes site monitoring unit in monitoring wireless compactor signals from compactor communicator and wireless container signals from container tag

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REDES DE SENSORES PARA DETECTAR INCENDIOS FORESTALES

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
WO2010060407 A1	IQ WIRELESS ENTWICKLUNGS GES SYSTEME & TECHNOLOGIEN TELEKOMMU	Device for recognition of e.g. forest fire and differentiation of fire from e.g. artificial light source, has image generating unit formed as monochromatic silicon CCD sensor of camera and exhibiting preset sensitive
WO2010040197 A1	BERGERON A INST NAT OPTIQUE JEROMINEK H	System for illuminating target in a scene, has illumination device adapted to illuminate selected portion of illumination field according to illumination figure, for selectively illuminating target in illumination field
WO2010034060 A1	INTEGRATED SYSTEMS PTY LTD	Alert generation method used in monitoring objects and events involves processing relationships between models when characteristics are related to relationship criteria then alert is generated when relationship meets alert criteria

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OTRAS REFERENCIAS

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
WO2010059180 A2	HARVARD COLLEGE	Distributed-feedback quantum cascade laser for use in array of semiconductor laser of infrared spectroscopy, has distributed-feedback grating arranged on active region to provide spatial variation of free-carrier absorption loss
WO2010055209 A1	SENSINODE OY	Apparatus for virtualizing resources in embedded computer network, publishes resource descriptions in network, and handles resource data requests from network relating to resources
WO2010052530 A1	ECOSERV REMOTE OBSERVATION CENT CO LTD	Radar-radiometer system for earth surface and atmospheric sensing has processing module which performs joint processing of output signals of normalization and calibration modules that calibrate and normalize output signals of receivers
WO2010053347 A2	MIMOS BERHAD	Method for increasing network capacity for wireless mesh network, involves establishing multipaths from mesh node to target node, for transferring packet data based on synchronization signals to destination node
WO2010053348 A2	MIMOS BERHAD	Method for providing cooperative relay of data within wireless mesh network that delivers e.g. rural or suburban community networking service, involves updating table and schedule by generating update report for table and schedule
WO2010056834 A1	DEERE & CO ANDERSON N LIU J Z TEVS N R	Seed sensors for detecting passage of seed through seed tube in agricultural planter, have transparent film arranged on radiation emitter or radiation detecting elements so that elements receive radiation traveling across tube
WO2010045954 A1	PIRELLI & C SPA TELECOM ITAL SPA	Operation setting method for routing node of asynchronous wireless communication network, such as wireless personal area network involves setting duration of awake interval and duration of sleep interval of routing node to selected values
WO2010045971 A1	PIRELLI & C SPA TELECOM ITAL SPA	Method for deployment of e.g. relay nodes in e.g. wireless sensor network, involves updating estimation of field parameters indicative of quality of communications between network nodes based on recorded communication activities
WO2010043992 A1	KONINK PHILIPS ELECTRONICS NV	Wireless transceiver reference frequency adjusting method for wireless sensor network, involves comparing received shared frequency with frequency provided by frequency source of transceiver for adjusting frequency provided by source
WO2010047792 A2	PAKSENSE INC	Electronic assembly i.e. environmental sensing assembly, for e.g. truck, has power source providing power to one of logic circuit and communicator, where circuit communicates with other assemblies to sense changes in environmental condition
WO2010056921 A2	PROJECT FROG INC	Multifunctional panel useful for building comprises exterior surface, interior surface, insulative body between interior and exterior surfaces
WO2010037425 A1	TELEFONAKTIEBOLAGET ERICSSON L M	Monitor apparatus for cellular communications network, has processor that processes data, indicative of prevailing environmental condition, in relation to respective geographic region in which sensor is situated
WO2010039166 A1	GHOSH R PANDEY R SYNAPSENSE CORP	Method in hybrid network for managing packet routing in wireless sensor networks, involves promoting internally-powered node to router role if internally-powered node is needed for routing, otherwise demoting internally-powered node
WO2010035150 A1	MELLI AUTOMAZIONE SRL	Monitoring device for fire extinguisher, has meter operatively connected to alarm element that is adapted to signal when quantity metered by meter is in determined relationship with reference quantity
WO2010035933 A2	ELECTRONICS & TELECOM RES INST	Packet transmitting apparatus for node in wireless sensor network utilized in national defense boundary observation service, has collecting unit for collecting information related to queue load of neighboring node from packets
WO2010039528 A1	EWING D B GUAGENTI M A SYNAPSE WIRELESS INC	Node information displaying system for wireless sensor network, has memory storing nodes of network, where one node runs function or script image identified by function identifier in response to remote procedure call

WO2010032161 A1	KONINK PHILIPS ELECTRONICS NV PHILIPS INTELLECTUAL PROPERTY	Method for secure communication between nodes in e.g. mobile wireless sensor and actuator networks, involves computing shared key between nodes based on common keying root share segments, node identifier and segment identifier