Boletín VT

REDES DE SENSORES INALÁMBRICAS

5

1.er trimestre 2011

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 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:

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1

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
WO2011028096 A1	MIMOS BERHAD	Communication architecture for e.g. automotive application, has communication system comprising wireless signal transceiver, and wireless signal coordinator wirelessly communicating with wireless signal transceiver
WO2011022015 A1	PIONEER HI-BRED INT INC	Apparatus for automated processing of sets of soybean seeds to breed soybean plants in building, has packaging system to provide ordered separation of one set of quantified seeds from another set of seeds by packaging seed request order
WO2011018402 A1	SYNGENTA LTD	Method for detecting presence of node in stem of e.g. bamboo, and sensor apparatus of plant stem cutting machine, involves analyzing resultant output in order to determine presence of node at locations
WO2011011811 A1	COMMONWEALTH SCI&IND RES ORG	Rechargeable wireless sensor network for capturing high frequency micro-climate signals, has nodes operated to periodically switch on and employ compressive sensing techniques to collect data samples representing sensed phenomenon

...ver más

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2

REDES DE SENSORES PARA ENTORNOS URBANOS O PÚBLICOS

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
WO2011028092 A1	UNIV MALAYA UM	Integrated traffic monitoring and enforcement system for use in traffic engineering has roadside central processing unit which has an industrial microprocessor with signal conditioning and data acquisition board, charged amplifier
WO2011012146 A1	PRYSMIAN SPA	System for monitoring parameters of cable system of electric power transmission system, has monitoring nodes that are connected in cascade, such that last monitoring node of cascade sends output data to central unit
WO2011002272 A1	UNIV SAINS MALAYSIA	Method for obtaining quantitative data for determining particulate air quality concentration level of signal path, involves determining relationship between atmospheric reflectance and particulate matter concentration level
WO2010143948 A1	NEDERLANDSE ORG TOEGEPAST NATUURWETENSCH	Corrosion or degradation assessment method for pipeline use in transportation of any medium, involves receiving sensor module identifiers and local temperature and humidity values measured at pipeline and inputting into assessment unit

...ver más

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3

REDES DE SENSORES PARA DETECTAR INCENDIOS

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
WO2011032117 A1	DELACOM DETECTION SYSTEMS LLC	Method for detecting wildfire using visible range video camera, involves applying trained support vector machine to covariance matrix to determine if land connected slow moving gray colored smooth region is smoke from wildfire
WO2011019525 A2	ACCENTURE GLOBAL SERVICES GMBH	Method for relative positioning of access points in real time locating system, involves providing graphical representation of determined positioning of access points in work area when coverage and accuracy of area satisfy threshold
WO2011017814 A1	TYCO SAFETY PROD CANADA LTD	Method for transmitting and processing security system event signals for remote monitoring of e.g. commercial building, involves using one of multiple communication ports for transmitting event signal data to automation server
WO2011004326 A1	SYSCOR CONTROLS&AUTOMATION INC	Wireless communication apparatus for connecting linear heat detector (LHD) to fire control panel has communication unit, which relays status and control signals between fire control system and remote unit
WO2011000060 A1	DATODI R F	Radio activated danger warning system e.g. radio activated bush fire warning system, has receiver that receives coded signals of corresponding geographical zone for generating alarm to warn approach of danger, in respective zone

..ver más

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4

OTRAS REFERENCIAS

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
WO2011031815 A2	PLENTL B A	Buoy array, has platforms, where array provides continuous wireless signal to aircraft traveling along commercial transoceanic flight path such that buoys provide continuous communication system
WO2011025358 A1	MIMOS BERHAD	Method for handling mote and sensor devices in wireless sensor network, involves requesting sensor device to check-in within network and receiving conformation from sensor device to check in within network
WO2011022666 A2	GECO TECHNOLOGY SCHLUMBERGER CANADA LTD WESTERNGECO RYBERG R TRAETTEN O	Seismic sensor e.g. pressure sensor, decoupling apparatus for marine seismic data acquisition system, has gel provided between housing and sensor, where gel has different material property relative to gel filled in streamer
WO2011022577 A1	OLYMPUS CORP PURDUE RES FOUND	Method for controlling access to shared communications medium, involves adapting communication schedule of node in response to prediction regarding node in which event occurs within sensing field
WO2011017871 A1	SHENYANG AUTOMATION INST CAS	Method for two-stage packet aggregation in wireless sensor network of hybrid topology structure, involves performing second-stage aggregation by router node, and generating second-stage aggregation packet by router node
WO2011022398 A1	AWS CONVERGENCE TECHNOLOGIES INC	Method for detecting e.g. intracloud lightning activity, involves compressing waveform data by selecting points on waveform and determining inflection of selected points based on predefined algorithm
WO2011007301 A1	KONINK PHILIPS ELECTRONICS NV	Secure transmission method for securely broadcasting sensitive data e.g. over-the-air software update in wireless sensor networks involves checking whether all nodes have transmitted respective first acknowledgment message by trust center
WO2010149796 A1	MASAT BV	Moving sensor node e.g. gas sensor, location information determining method for e.g. motorbike to communicate with fixed two-dimensional multi-hop communication network for drilling rig, involves transforming information into coordinates
WO2011001211 A1	NOKIA CORP NOKIA INC	Method for routing data packets to mobile sink through wireless sensor network in e.g. military applications, involves transmitting current message based on determined timestamp information in different instances
WO2010143989 A2	CRNOJEVIC V SENK V STEFANOVIC C VUKOBRATOVIC D	Method of encoding information packets into rate less packets used for data gathering in network e.g. wireless sensor network, involves encoding rate less packets and storing in final random position in network by performing random works
WO2010148026 A1	QUALCOMM INC	Communication apparatus e.g. cellular phone, has circuit that determines when to transmit data based on measurement apparatus and determination is made based on parameter configurable by apparatus
WO2010147622 A2	GHOSH R HAN S P PANDEY R SYNAPSENSE CORP	Adaptation method for ambient noise in wireless sensor networks involves retaining noise threshold value and enabling data communication by wireless network device if ambient radio frequency (RF) noise level is below threshold value

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5