

Boletín VT

COCHE INTELIGENTE

1er trimestre 2010

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Vigilancia Tecnológica

La integración de las tecnologías de la Información y Comunicaciones (TIC) en vehículos e infraestructuras viales se ha mostrado muy provechosa a la hora de obtener soluciones avanzadas a los problemas del transporte de hoy en día.

Los Sistemas de Coches Inteligentes buscan facilitar la interacción entre el conductor, el vehículo y la carretera, de manera que los sistemas autónomos de abordaje se complementan con sistemas que cooperan entre los diferentes vehículos o entre los vehículos y las infraestructuras, para mejorar, de este modo, aspectos de gran relevancia, tales como la reducción de accidentes, la eficiencia energética o la reducción de la contaminación.

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 algunos

de los sectores prioritarios contemplados en el desarrollo del “Coche Inteligente”, tales como: los sistemas de gestión optimizada del tráfico, las redes sensoriales o de comunicaciones integradas en los vehículos, los sistemas de gestión de plazas de aparcamiento o de peajes, y los sistemas de notificación de accidentes o averías a servicios de emergencia u otros conductores cercanos.

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:

- Gestión del tráfico
- Redes vehiculares
- Gestión de aparcamientos y peajes
- Notificación de accidentes

- 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.

GESTIÓN DEL TRÁFICO

Nº PUBLICACIÓN SOLICITANTE CONTENIDO TÉCNICO

WO2010029502 A1	DU PLOOY A G W PRETORIUS A J	Radio frequency system for determining e.g. vehicle presence, vehicle length, vehicle traffic, vehicle speed, has radio frequency identification (RFID) tag reader set above RFID tag mounted in or on road surface
WO2010026630 A1	FUJITSU LTD	Traffic flow control system has signal parameter computing unit that changes parameter of each traffic signal according to determined traffic flow control policy
WO2010022179 A1	CAMPBELL CO UNIV IDAHO	Pedestrian call station used in advanced accessible pedestrian call system, communicates traffic control request to controller in response to activation of pedestrian call switch, and receives acknowledgement of request from controller
WO2010008608 A3	SENSYS NETWORKS INC	Apparatus for generating and or using estimates of arterial vehicular movement, uses vehicle signature for each vehicle passing at least two sensor pods to produce vehicle movement estimate based on sensor readings
WO2010006361 A1	NAT ICT AUSTRALIA LTD	Vehicle detecting method for computer vision traffic surveillance system, involves determining whether candidate vehicle is vehicle represented in image by testing sub-image for presence of features of vehicle other than headlights
WO2010004447 A1	KAFRY E KEIDAR G TELEMATICS WIRELESS LTD	Automatic vehicle identification (AVI) unit for highway monitoring and broadcast system, has audio speaker which broadcasts verbal announcements based on information received from interrogator
WO2009158211 A3	MICROSOFT CORP	Travel information i.e. velocity information, communicating system for e.g. vehicle, has contact component enabling emission of travel information if travel information is needed to be transmitted to auxiliary entity
WO2009150528 A3	TMT SERVICES & SUPPLIES PTY LTD TMT SERVICES&SUPPLI ES PTY LTD	Traffic control system for intersections, has multi-object radar sensor capable of developing data from which location, speed and direction of travel of each vehicle within its field and range of detection can be derived

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REDES VEHICULARES

Nº PUBLICACIÓN SOLICITANTE CONTENIDO TÉCNICO

WO2010030341 A1	UNITED PARCEL SERVICE AMERICA	Computer system for managing fleet of delivery vehicles determines whether telematics data indicates potential inefficient operation by driver, potential safety hazard created by driver, or potential theft hazard created by driver
WO2010031599 A1	BOSCH GMBH ROBERT	Communication system e.g. controller area network-bus system, operating method for motor vehicle, involves measuring signal rate of signaling message and determining bit error rate of common channel depending on signal rate of message
WO2010028260 A1	UNITED PARCEL SERVICE AMERICA	Computer system e.g. network entity computer system, for use with telematics device in delivery vehicle, has computer processor defining geofence that surrounds geographic area and gathering information associated with geofenced area
WO2010020260 A1	NEC EURO LTD	Method of enabling communication in mobile ad hoc networks e.g. vehicular ad hoc networks, involves signaling single query response between mobile nodes of initiator device and target device for communication establishment
WO2010021426 A1	ELECTRONICS & TELECOM RES INST	Vehicle gateway for vehicle network interface apparatus, has media independent handover (MIH) handler that supports handover between heterogeneous networks according to connection state of access device
WO2010020821 A2	GILCHRIST J W MEECHAN A R MEECHAN R T	Fuel monitoring device for a vehicle has control module operable to receive data from each fuel tank sensor and is operable to output fuel level related data to a mobile communications system transmitter for transmission to an end user
WO2010019576 A3	RES IN MOTION LTD FURBECK D S JANHUNEN S E SIMMONS S	Data communication method using communication system integrated within vehicle e.g. automobile, involves transmitting data from mobile electronic device to public safety answering point (PSAP) using initial modulation scheme
WO2010013096 A1	FREESCALE SEMICONDUCTOR INC SIMMONS S	Communication module apparatus for master module apparatus of communication system for vehicle, has transmission circuits that generate alternating voltage signal whose polarity changes during transition time
WO2010019568 A1	TELCORDIA TECHNOLOGIES INC	Networked mobile device e.g. mobile phone, application services providing system for car, has mobile device client communicated with mobile device proxy, where applications are executed on mobile device and vehicle on-board equipment
WO2010004765 A1	AUTONETWORKS TECHNOLOGIES HARNESS SOGO GIJUTSU KENKYUSHO KK SUMITOMO LTD UNIV NAGOYA NAT CORP	Relay apparatus for use in communication system mounted in vehicle, reads numerical information included in received data frame from other relay apparatuses so as to update numerical information in self-relay apparatus
WO2010000672 A1	CONTINENTAL AUTOMOTIVE GMBH SUMITOMO WIRING SYSTEMS LTD	Electrical circuit for use in motor vehicle, has emergency network connected with sub-controller of consumer controller, and circuit controller including connection connected with emergency network
WO2010000510 A1	BOSCH GMBH ROBERT UNIV NAGOYA	Control network for motor vehicle, has node comprising time reference systems indicating global time and time coordination system coordinating global times at which actions are to be performed by other nodes
WO2009149730 A1	NEC EURO LTD	Information disseminating method for e.g. motor vehicle in e.g. vehicular ad hoc network, involves aggregating message by adding information retrieved from received messages, where generated aggregation message is broadcasted to vehicles

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GESTIÓN DE APARCAMIENTOS Y PEAJES

Nº PUBLICACIÓN SOLICITANTE CONTENIDO TÉCNICO

WO2010033024 A1	NEDAP NED APPARATENFAB NV	Parking arrangement for vehicle sets measuring value which differs from the quiescent value by more than a predetermined threshold value to indicate that a vehicle is situated in the parking place
WO2010029667 A1	MITSUBISHI ELECTRIC CORP	Navigation apparatus for vehicle e.g. car, sets selected parking lot as destination or intermediate point, and then performs corresponding route search when specific parking lot is selected from parking lots displayed by display unit
WO2010027318 A1	MODUL SYSTEM SWEDEN AB	Payment method for use during parking vehicle, involves retrieving and displaying registration number with which card is recently associated in database, where person parking vehicle inputs answer to question into parking machine
WO2010026698 A1	PIONEER CORP PIONEER ELECTRONIC CORP SHARP KK	Vehicle equipment e.g. car navigation apparatus of route guidance system, ends route guidance of vehicle to parking position, on transmission of destination information or reception of arrival information
WO2010023571 A1	LEVINE U SHABTAI E SHINAR A WAZE MOBILE LTD	System for estimating parking time of car in parking slot, has application server that receives time series of parking spot location points from communication and/or navigation devices to calculate duration of searches of spots
WO2010007668 A1	PIONEER CORP	Information alerting apparatus for navigation apparatus mounted in e.g. two-wheeled vehicle, notifies whether or not branching point to another free road is present on near side of starting position of toll section of highway
WO2010003400 A1	NAVIGON AG	Navigation apparatus e.g. stationary navigation apparatus, operating method for vehicle to detect parking place, involves outputting maneuvering instructions for guiding user along modified route to parking possibility
WO2010001589 A1	PANASONIC CORP	Guiding apparatus installed in landing strip of airport, has linear guiding section that propagates laser light along strip on which aircraft moves
WO2009154599 A1	FIORUCCI J ROWE R	Parking locator for detecting presence or absence of e.g. motorcycle, has logic device communicating presence of vehicle within parking space to external device when sensors detect presence of object within parking space
WO2009154787 A4	FIORUCCI J ROWE R	Parking locator system for detecting presence of vehicle within parking area, has logic device in electrical contact with set of sensors, where logic device communicates presence of vehicle and tag information to external device
WO2009146948 A1	EFKON GERMANY GMBH	Method for collecting toll of motor vehicle by satellite or mobile telephone positioning, involves determining toll amount data in vehicle device according to location-related data and stored charge-related data

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NOTIFICACIÓN DE ACCIDENTES

Nº PUBLICACIÓN SOLICITANTE CONTENIDO TÉCNICO

WO2010028660 A1	ATTA M S A	Locating device installed in transportation unit e.g. boat, has balloon connected through wire with flags, that is made to fly over transportation unit
WO2010025562 A1	AEGIS MOBILITY INC	Method for initiating emergency voice calls over telephony network, involves associating updated context change notification messages corresponding to mobile device with updated state data by reflecting enhanced service bypass state
WO2010019603 A1	RES IN MOTION LTD FURBECK D S JANHUNEN S E SIMMONS S	Wireless data communication system for use in e.g. truck, has voice codec automatically retransmitting packets to station using low-rate modulation scheme unless indication is provided that series of packets has been received by station
WO2010007412 A1	VODAFONE GROUP PLC SIMMONS S	Emergency communications device for operation in vehicle, has identifier for recognizing emergency communications device as having emergency notification facility and to change system access priority
WO2010004443 A1	AUTOTALKS LTD	Broadcast transmission performing method for e.g. car, in vehicular environment, involves using dynamic local map and request to send/clear to send handshake to broadcast data to other vehicles in vehicular environment
WO2010003440 A1	ELEKTROBIT AUTOMOTIVE SOFTWARE GMBH	Method for transferring message to at least one target destination via vehicle-to-vehicle communication, involves determining relationship between geographical information of second vehicle, received by first vehicle, and target destination
WO2010004078 A1	LH COMMUNICATIONS OY	Method for providing collision alert from cyclist to pedestrian, involves performing collision alert triggering operation when distance between cyclist and pedestrian is within short-range limit
WO2010004340 A1	VODAFONE GROUP PLC	Pressure wave detecting method for emergency communication device used in vehicle involves monitoring electro-acoustic transducer for event occurrence, and outputting detection signal upon occurrence of event
WO2009158227 A3	GM GLOBAL TECHNOLOGY OPERATIONS INC	Method for suppressing redundant packet message transmission in vehicle, involves re-broadcasting message packets in response to re-broadcast estimation threshold value satisfying count value of triggering indicator
WO2010005649 A3	GM GLOBAL TECHNOLOGY OPERATIONS INC	Traffic system for providing real-time traffic information from one vehicle to other vehicles, has controller calculating traffic condition index for identifying traffic around vehicle and broadcasting index to other vehicles
WO2009151395 A1	TELEFONAKTIEBOLA GET ERICSSON L M	Short message service message delivering method for e.g. cellular radiotelephone within car, involves sending data to destination device over service access point identifier 0 having service access point related to data link layer

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OTRAS REFERENCIAS

Nº PUBLICACIÓN SOLICITANTE CONTENIDO TÉCNICO

WO2010023432 A2	NOMAD SPECTRUM LTD	Provision of data communication to vehicle involves modifying first identifier to identify intermediate device, and forwarding modified first data packet from intermediate device to other devices
WO2010025559 A1	CAST GROUP CO INC DENSHAM G EICHEL J	Physical object coordinating method for e.g. physical environment, involves generating response for physical environment if updates meet condition, and providing response to clients in physical environment
WO2010022785 A1	TELEFONAKTIEBOLA GET ERICSSON L M	System for determining position of object e.g. emergency caller terminal, has detector that detects position of object in predefined volume based on detection of transmitted polarization
WO2010023620 A1	DA ROCHA E H F	Method for rewarding user with e.g. tollgate pass, involves accruing expenditure by user on land travel and allocating reward equivalent to amount expended on land travel, to the user
WO2010019929 A1	ATX GROUP INC	Delivering method of criteria based message to vehicle occupant e.g. driver involves immediately providing advertisement message transmitted and determined by remote data center based on criteria, through speaker within vehicle
WO2010019045 A1	MODULPRODUKTER AS	Warning and braking system for vehicle has unit that registers parameters which influence road surface grip, together with a warning and executing device that executes an action when a lower threshold value for road surface grip is reached
WO2010019580 A2	RES IN MOTION LTD FURBECK D S JANHUNEN S E SIMMONS S	Method for wireless data communication between mobile electronic devices in e.g. automobile, involves combining checksum with initial data packet to form transmission packet that fails to include associated unique number
WO2010019849 A3	HASHIM-WARIS M	Visitor and vehicle managing system for access-controlled environment e.g. campus, has answering station configured to present answering station operator with set options, and network prioritizing available answering stations based on data
WO2010019615 A3	RES IN MOTION LTD FURBECK D S JANHUNEN S E SIMMONS S	Communications system for use in e.g. automobile, has radio frequency transceiver for transmitting series of packets until receiving indication that series of packets is received at wireless communication network
WO2010017130 A3	HARRANG J OPANGA NETWORKS LLC	Media distribution system for media playback device connected through local area network (LAN), has relay device that determines whether to reformat received media content compatible with media playback device
WO2010007667 A1	PIONEER CORP	Traffic congestion predictor of route searching apparatus for navigation apparatus, has predicting unit that lowers output when road change information is acquired by change information acquiring unit
WO2009155933 A1	NEUBAUER HOLDING APS BENT	Electronic parking disc mounted on vehicle e.g. car, has electronic display that is switched after determining minimum value for motion of vehicle