

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

WO2010138057 A1	SENSEBIT AB	Vehicle detector for providing traffic information, has antenna that is provided outside and at distance from housing, and controller that is arranged to turn OFF transmitter, receiver and vehicle sensor
WO2010134824 A1	MODULPRODUKTER AS	Vehicle system for on-board driving assistance device, has speed control/speed input unit that provides speed recommendations to a driver based on determined navigated spatial position
WO2010128998 A1	TELE ATLAS NORTH AMERICA INC	Speed information determining method, involves receiving two traffic monitoring information from two navigation devices, respectively, and determining speed information from traffic monitoring information
WO2010127590 A1	LIU B	Method for radio navigation in e.g. highway through e.g. mobile communication network, involves installing radio transceivers on road for delivering positioning and velocity measurement results to moving pedestrian, vehicle or ship
WO2010129072 A1	MOHEBBI B	Road traffic monitoring system processes collected data in isolation or in conjunction with other transmitted data from same or other mobile units, to estimate traffic status for geographical area associated with mobile units
WO2010115083 A2	CAMPBELL N J CHAN P COURTNEY T HAUKE OTTENHEIMER A TRAFFICCAST INT INC	Vehicular traffic data collecting system for traffic management system, has node communicating information associated with devices associated with traffic to cellular communications module
WO2010107214 A3	THINKWARESYSTEMS CORP	Navigation control device for vehicle traffic management system, has information receiving part for receiving travel information of preceding user, and navigating part for guiding route to user based on travel information of preceding user
WO2010103504 A1	GORE Y	Method for coordinating traffic at intersection of multi-lane entry routes, involves computing duration of permission to cross intersection for routes, based on adjusted velocity and length of group of cruising vehicle platoons
WO2010098559 A3	KOREA ADV INST SCI&TECHNOLOGY	Traffic signal control system for controlling traffic in road, has traffic signal control unit which controls traffic signal based on traffic information from road-periphery communication unit
WO2010103753 A1	AISIN AW CO LTD DENSO CORP NIPPONDENSO CO LTD	Traffic information management device mounted in vehicle, controls communication unit, so that traffic information indicating current position is sent based on instruction given by user operation or automatically given instruction

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REDES VEHICULARES

Nº PUBLICACIÓN SOLICITANTE CONTENIDO TÉCNICO

WO2010140239 A1	TOYOTA JIDOSHA KK	Peripheral monitoring apparatus for motor vehicle, has control unit that controls information processing and operation of monitoring sensor based on priority set for several monitoring sensors
WO2010149467 A1	CONTINENTAL TEVES&CO OHG AG ADC AUTOMOTIVE DISTANCE CONTROL SYSTEM G	Vehicle-antenna unit for participating in vehicle-to-environment communication, has arithmetic unit for evaluating satellite-location signal and allowing antenna unit to participate in vehicle-to-environment communication
WO2010135837 A1	BASIR O A INTELLIGENT MECHATRONIC SYSTEMS INC MINERS W B	Vehicle communication system for communicating vehicle data and network data to user, has control unit that process received network data and converts vehicle data to audible speech, when mobile communication device is in immersive mode
WO2010135304 A2	BOSCH GMBH ROBERT	Wireless transmission method for automotive networks involves transmitting acknowledgement packet from responding node before command packet is sent from commanding node within time slot
WO2010130741 A1	CONTINENTAL AUTOMOTIVE GMBH CONTINENTAL TEVES&CO OHG AG	Control device for processing data in bidirectional ad hoc network radio communication in vehicle-communication network has computing unit for processing data and connections for data input and data output
WO2010125284 A1	PEUGEOT CITROEN AUTOMOBILES SA	Periodic messages transmitting method for controller area network for controlling components of motor vehicle, involves storing messages in slots selected with shifts with respect to initial slot in order to avoid collisions of messages
WO2010120715 A1	FLEXTRONICS AUTOMOTIVE INC	Local interconnect network bus remote control system for controlling e.g. passive entry/activation in e.g. car, has local interconnect network bus controller in communication with network bus for receiving local interconnect network signals
WO2010113219 A1	FUJITSU LTD	Mobile station communication apparatus e.g. for vehicle such as car, has transmission setting unit which sets transmission resource using stored transmission resource correspondence information allocated to respective allocation area
WO2010112173 A3	AUDI AG VOLKSWAGEN AG	Control device for network of motor vehicle, has network message identification module that switches device to sleep mode or from sleep mode during previously defined state or event, in driving state of motor vehicle
WO2010105210 A3	COMSYS COMMUNICATION&SIG NAL PROCESSING ZARETSKY H	Vehicle integrated communication system for providing advanced communications features and services in vehicle platform has controller which controls operation of radio frequency (RF) module and receiver and transmitter baseband modules
WO2010103768 A1	HONDA MOTOR CO LTD	Behavior control system of motor vehicle, has control unit that controls transmission of cooperative control signal to controller area network so that other vehicle behavior control devices can use cooperative control signal
WO2010104525 A1	TELCORDIA TECHNOLOGIES INC TOYOTA INFOTECHNOLOGY CENT USA INC	Data transmitting method for vehicles, involves grouping content fragments together based on communication window to form aggregate fragment block, and forwarding aggregate fragment block to target node
WO2010103220 A1	PEUGEOT CITROEN AUTOMOBILES SA	Slave members alert controlling method for Local Interconnect Network embarked in car, involves allowing master member to confirm alert of slave members only if activity in network is justified
WO2010103217 A1	FRANCE TELECOM	Communication method for vehicles connected in ad-hoc vehicle network, involves sending reservation request at time intervals, where time intervals belong to first set before sending request and belong to second set once request is sent

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GESTIÓN DE APARCAMIENTOS Y PEAJES

Nº PUBLICACIÓN SOLICITANTE CONTENIDO TÉCNICO

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
WO2010131206 A2	BOUZAGLO B	Mobile parking management device has processor which is operative to send parking management device identification data to remote server, and report parking status to remote server
WO2010128189 A1	AUTOPISTAS CONCESIONARIA ESPAN SA	Modular assembly for controlling entry to toll road, has provision for installation of top-right post to form assembly with overhead unit installed on support post, and barriers
WO2010123708 A1	LSI IND INC	Intelligent lighting system for parking garage, has set of ultrasonic acoustic sensors arranged to obtain occupancy data of parking stalls, and controller arranged to use data from sensors to control optical output of lighting elements
WO2010119509 A1	PIONEER CORP	Parking management apparatus for electrically driven vehicle, has management unit that manages empty condition of loan parking lot based on possible information which shows conditions about lending parking lot
WO2010110050 A1	HONDA MOTOR CO LTD	Navigation server in navigation system, has assistance data transmission unit for transmitting discount notification data even though navigation apparatus is made to omit information arithmetic processing
WO2010105348 A1	KOHLI J MALARKY A MARK IV IND CORP	Transponder communication system for use in electronic toll collection system for programming transponder located in moving vehicle traveling in roadway, has control device directing antennas to transmit programming signal in enhanced mode
WO2010105349 A1	KOHLI J LEE M MALARKY A MARK IV IND CORP	Adaptive communication system for communicating with transponder located in moving vehicle in gated toll plaza, has roadside controller to adjust one variable communication parameter based on predetermined communication parameters
WO2010098128 A1	MITSUBISHI HEAVY IND CO LTD MITSUBISHI JUKOGYO KK	Toll billing system for motor vehicle e.g. car, has fee-charging area setting unit that sets predetermined area as fee-charging area after determining that road of predetermined area is congested

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NOTIFICACIÓN DE ACCIDENTES

Nº PUBLICACIÓN SOLICITANTE CONTENIDO TÉCNICO

WO2010130612 A1	CONTINENTAL AUTOMOTIVE GMBH CONTINENTAL TEVES&CO OHG AG	Vehicle to vehicle communication, especially for emergency vehicles, uses the remote key with transceivers at the key and vehicle modules
WO2010130739 A1	CONTINENTAL AUTOMOTIVE GMBH CONTINENTAL TEVES&CO OHG AG	Method for utilizing computing unit of emergency call unit in vehicle, involves switching computing unit to emergency call mode, and transmitting emergency call via cellular communication module
WO2010125241 A1	TIIMATAITO OY	Mobile apparatus e.g. black box for controlling traffic, has transmitter which sends video signal and information relating to occurrence of traffic control signal through communication network to store video signal and information
WO2010114619 A1	CERTUSVIEW TECHNOLOGIES LLC	Documenting apparatus for vehicle-related event has processing unit which controls communication interface and/or memory to electronically transmit and/or electrically store information relating to marked-up digital image
WO2010112806 A1	LEWIS G L	Vehicle emergency warning apparatus for alerting traffic of disabled vehicle, has collapsible support unit including extended position in which illumination unit is mounted high for vehicle to be clearly illuminated by illumination unit
WO2010111442 A1	B&C ELECTRONIC ENG INC	Computer storage medium for providing e.g. emergency event notification, to navigational applications, has set of instructions for transmitting event identification, and severity level determined based on client severity level
WO2010110079 A1	SANYO ELECTRIC CO LTD TOTTORI SANYO DENKI KK SANYO CONSUMER ELECTRONICS CO	Electronic device e.g. navigation apparatus mounted in car, has control unit to calculate predicted time of arrival at designated destination when incident occurrence rate in destination is more than predetermined value
WO2010107773 A1	FORD GLOBAL TECHNOLOGIES LLC	Vehicle communication system, has processor providing in case of emergency information associated with detected wireless devices to remote emergency operator based detection of wireless devices
WO2010101943 A1	AIRBIQUITY INC	Communication method for transmitting vehicle location information to e.g. police personnel, in wireless telecommunication network of in-vehicle system, involves transmitting digital data by utilizing in-band signaling modem technique

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OTRAS REFERENCIAS

Nº PUBLICACIÓN SOLICITANTE CONTENIDO TÉCNICO

WO2010131077 A1	FREESCALE SEMICONDUCTOR INC	Child seat for land vehicle e.g. car, has network connector through which data communication is established between child car seat network node and in-vehicle data communication network
WO2010128912 A1	ERIKSSON A WESTERBLAD H	Impact alert system for reducing personal injury at vehicle impact, has control unit that determines impact situation depending on surrounding signals, and also determines optimal muscle activation for occupant for impact situation
WO2010123567 A1	PARKPOD GMBH	Electric energy exchange system for managing grid-vehicle i.e. car, electric energy exchange devices, has processor determining price for electric energy exchange based on set of predefined and transaction parameters
WO2010116601 A1	MITSUBISHI ELECTRIC CORP	Narrow-band wireless communication apparatus e.g. dedicated short range communication apparatus for e.g. two-wheeled motor vehicle, controls human machine interface output based on judged availability and environment information
WO2010119508 A1	PIONEER CORP	Electric power supply apparatus for charging device used for electrically driven vehicle, has transmission unit that transmits information on parking area acquired by acquisition unit to user of electric vehicle
WO2010115573 A1	LI-TEC BATTERY GMBH	Method for operating vehicle, involves determining charge condition of electric energy unit, and determining current position of vehicle
WO2010106760 A1	HONDA MOTOR CO LTD	Apparatus for diagnosing driving operation of vehicle e.g. car in vehicle store, creates chart indicating fuel consumption state per driving operation based on driving data and outputting chart based on comparison result of each run cycle