Boletín VT

COCHE INTELIGENTE

3.er 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 abordo 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 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:

- **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
WO2010093454 A2	INTHINC INC MCCLELLAN S	Central monitoring server for performing process for analyzing traffic flow, has set of mobile devices providing location report, where location report identifies current location and current speeds of corresponding mobile devices
WO2010093456 A2	FOLLMER T W INTHINC INC MCCLELLAN S	Method for monitoring vehicle driving behavior in street in municipality area, involves receiving indication specifying that the limitation for current street is incorrect, and transmitting it to third party
WO2010098555 A2	KOREA ADV INST SCI & TECHNOLOGY KOREA ADV INST SCI&TECHNOLOGY	Traffic information providing system for e.g. cars, has wayside communication unit for communicating traffic information to wayside communication unit, and communication part providing information corresponding to location of vehicles
WO2010082353 A1	TOYOTA JIDOSHA KK KOREA ADV INST SCI&TECHNOLOGY	Apparatus for controlling vehicle e.g. car, instructs lane change with respect to vehicle or following vehicle when lane has to be changed by traffic information and leading vehicle deceleration information
WO2010086968 A1	TOYOTA JIDOSHA KK	Method for controlling arrangement of vehicles during traffic on road, involves ascertaining periphery monitoring performance of each vehicle, based on acquired information content of vehicle, to determine arrangement of vehicles
WO2010087382 A2	AISIN AW CO LTD TOYOTA JIDOSHA KK	Navigation device for collecting and transmitting probe information to information distribution center, has transmission control unit for transmitting generated probe information to information distribution center through communication unit
WO2010098554 A2	KOREA ADV INST SCI & TECHNOLOGY	System for controlling group driving of vehicles, has wayside communication unit controlling group driving of vehicles by transmitting and receiving information to/from vehicles passing on road
WO2010066911 A1	SIEMENS AG	Arrangement for displaying message to car driver, has control unit generating control signal, and display device displaying message as response to receipt of control signal, where message depends upon reference situation
WO2010068107 A1	NEDERLANDSE ORG TOEGEPAST NATUURWETENSCH	Traffic information unit for use in traffic information system for vehicle, has message interpreter tracking vehicle state information of individual vehicles, and transmitters transmitting information to vehicles at traffic infrastructure

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REDES VEHICULARES

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
WO2010099416 A1	MAGNA ELECTRONICS	Alert system for vehicle having rear vision system, includes visual alert devices, provided at inside mirror and driver and passenger side outside mirrors, activated in response to detection of object rearward of vehicle
WO2010089299 A1	CONTINENTAL TEVES&CO OHG AG	System for communication of vehicles e.g. cars, with infrastructure devices, has CPU rejecting construction of voice connection between vehicle and infrastructure device if message sent by device does not fulfill required criterion
WO2010084379 A1	FREESCALE SEMICONDUCTOR INC	Microprocessor architecture for advanced driver assistance system, in vehicle e.g. car, has part suppressed for all opcodes except partially suppressed opcode of sequence of instructions i.e. multiply-and-accumulate instruction
WO2010076049 A1	HITACHI LTD	Method for determining distribution of neighbor nodes around specific node in communication network e.g. vehicular ad hoc network, involves determining angular distribution of neighbor nodes located in beaconing range
WO2010079143 A1	NEC EURO LTD UNIV MADRID CARLOS III	Internet protocol version 6 (IPv6)-based communication system for vehicular ad hoc network (VANET) provides geographical and topological links designed to have corresponding logical boundaries
WO2010076668 A1	FREESCALE SEMICONDUCTOR INC	Image feature extraction system for advanced driver assistance system (ADAS) e.g. in-vehicle navigation system for e.g. car, compares lines and columns of gradient direction pixel values with reference directional gradient pattern
WO2010073082 A1	TELEFONAKTIEBOLA GET ERICSSON L M DAVIDSON W L VALENTINE E L	Inter-working module for use in vehicle telematics system, has processor sending message to user terminal, where user terminal routes message to application server through wireless communication network

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GESTIÓN DE APARCAMIENTOS Y PEAJES

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
WO2010099696 A1	GENVICT TECHNOLOGIES CO LTD	Solar power supply circuit for electronic automatic charging vehicle unit, has solar charging branch circuit provided with one-way current guide element that is connected in series between voltage regulator circuit and storage device
WO2010101974 A2	GARCIA A H KALWANI R M	Parking revenue collection method for electronically collecting parking fees, involves calculating parking revenue which is based on parking rate for parking location and tracked parking time
WO2010102073 A2	RAYTHEON CO MANOOGIAN D V NIZKO H J RUSSELL M E TOOLIN M J	Occupancy detection system for monitoring vehicles or objects has sensors to detect entry of object to entry portion, exit of object from exit portion, approach of object to entry portion or retreat of object from exit portion
WO2010098170 A1	AISIN SEIKI KK WALZER J H	Vehicle parking assistance apparatus for use in intelligent transport system, has guidance unit that guides vehicle from guidance starting position to target parking position, when steering apparatus is in non-holding state
WO2010098334 A1	WEST NIPPON EXPRESSWAY FACILITIES CO LTD	Vehicle traffic control apparatus has vehicle detection sensor sensing approach of vehicle provided in front of open/close bar when vehicle is detected using vehicle detection sensor
WO2010098132 A1	MITSUBISHI HEAVY IND CO LTD MITSUBISHI JUKOGYO KK WALZER J H	Fee-charging system such as electronic toll collection (ETC) system, has vehicle-mounted device that is connected with external device in order to perform wireless communication with central system
WO2010098216 A1	AISIN SEIKI KK	Parking assistance apparatus for assisting backward-motion parking of motor vehicle, has parking route determination section determining whether direct parking of vehicle at parking target position is possible without cutting-back
WO2010086108 A1	VOLKSWAGEN AG WALZER J H	Method for presenting surrounding area to driver of motor vehicle, during front-in or back-in parking of vehicle in parking space, involves assigning cells to last allocation condition, and updating confidence values of cells
WO2010081563 A1	TOMTOM INT BV	Portable navigation device used in vehicle e.g. car, for facilitating payment for parking service, has communication unit that communicates information regarding parking time of vehicle to server
WO2010081546 A1	TOMTOM INT BV	Server apparatus used with navigation apparatus for enriching representation of parking location has processing resource to derive statistical information concerning occupation of parking location from analyzed temporal information
WO2010071942 A1	VEHICLE MONITORING SYSTEMS PTY LTD	Method for uniquely identifying vehicle e.g. car committing parking violation, involves recording unique identifier of vehicle in zone of interest and association between identifier and data relating to violation committed by vehicle
WO2010071972 A1	MACKAY CANADA LTD J J	Wireless parking meter network operating method, involves placing wireless parking meter in wakeup mode at expiration of sleep period by using synchronized internal timer and receiving beacon message at parking meter
WO2010069002 A1	PARK ASSIST PTY LTD	Vehicle detecting method for parking management system by outputting an indication of the presence of the vehicle if the infrared detection confirms the presence of the vehicle

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NOTIFICACIÓN DE ACCIDENTES

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
WO2010091528 A1	GROUX S PROVATIS SA STRUCHEN J	Event e.g. accident, identifying and marking method for e.g. passenger car, involves modifying value of preset event qualification threshold by defining new threshold value and by sending threshold value changing confirmation to platform
WO2010093646 A1	APPLE INC HANS M	Method for providing emergency call within network i.e. third generation partnership project internet protocol multimedia core network sub-system compliant cellular network, involves transmitting composite stream via session
WO2010074013 A1	SANYO ELECTRIC CO LTD TOTTORI SANYO DENKI KK SANYO CONSUMER ELECTRONICS CO LTD	Vehicle-mounted electronic device with theft detection function e.g. navigation apparatus for use during heavy rain, determines incident occurrence rate in plant set as designated location, to set alternative location having low rate
WO2010080376 A3	MOTOROLA INC	Communication group forming method for distributing content related to emergency situation/incident to e.g. worker, involves applying set of rules to parameters to select resources to form communication group for distributing content

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Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
WO2010100109 A1	BOSCH GMBH ROBERT	Assistance system for passenger car, has image detecting apparatus for optically detecting image section of surrounding area of motor vehicle and changing detection direction in relation to motor vehicle
WO2010093122 A2	GEUM SUNG IND CO LTD	Shock absorbing equipment for use in roadway, has fixed type pillar laid on center line or side of road at constant interval and equipped with rotatable rotation support pipe, and reflection stripe provided with elastic rubber material
WO2010092650 A1	MITSUBISHI ELECTRIC CORP	Map information processing apparatus for navigation apparatus, has navigation processing section calculating present position of vehicle and number of continuous tunnels existing ahead of vehicle entered tunnel
WO2010092620 A1	PIONEER CORP	Information recording device for use in vehicle, has recording unit that records drinking information of driver in recording medium with cryptographic key based on detection result of alcohol sensors
WO2010084569 A1	TOYOTA JIDOSHA KK	Convoy traveling control system installed in vehicle e.g. car, has control unit that determines target value of distance between vehicles arranged along convoy based on relative error propagation rate of rear vehicle
WO2010081963 A1	AJAX HOLDING ASCOM MULTITOLL SOLUTIONS	Identification system for e.g. car in tollbooth, has transmission and reception module with antenna positioned under surface layer of circulation zone and collecting identification data from vehicle moving on circulation zone
WO2010073333 A1	TOYOTA JIDOSHA KK	Driving assistance apparatus for motor vehicle, has setting unit that sets execution condition for executing drive assistance control, based on traffic light information of traffic light on path of vehicle
WO2010074796 A1	TOYOTA MOTOR SALES USA INC	Global positioning system gate system for use in car for triggering transmission of e.g. message to call center, has monitor generating message based upon gate that transmits another message to gate communication system
WO2010067770 A1	HITACHI AUTOMOTIVE SYSTEMS LTD	Three-dimensional object emergence detection apparatus mounted in vehicle, extracts orthogonal direction characteristic component from looking-down image

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