Boletín VT

COCHE INTELIGENTE

2º trimestre 2025

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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 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:

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
WO2025109502A1	MOVYON S P A	Road infrastructure monitoring system for e.g. pedestrian traffic, has mobile communication device transmitting information content to processing apparatus by mobile connectivity module through mobile communication network
WO2025099577A1	QUIPUX S A S	System for monitoring vehicular traffic, controlling and increasing safety of road users, has detection module that detects new traffic violations not detected by on-site technology, without requiring intervention in installed technology and provided with component for identifying traffic violations
WO2025108977A1	NESPRIT S A R L	Real-time traffic management method for determining intensity of traffic, involves using neural network for detecting vehicles in real time, based on outputs of video cameras and without access to outputs of ground sensors, and managing traffic based on vehicles detections
WO2025083867A1	SUBARU CORP	System for controlling traffic of vehicle e.g. automobile, has driving control unit that controls driving of first moving object without crossing second lane in crossing restriction information, when information on crossing restriction information is included in individual control information
WO2025123439A1	UNIV HUANGHUAI	Traffic intelligent electronic monitoring device for monitoring, recording and managing road traffic, has third fixed column whose top is equipped with electronic monitoring case and housing fixedly connected to surface of electronic monitoring case and housing provided with cleaning component
WO2025103238A1	HANGZHOU HIKVISION DIGITAL TEC	Traffic parameter processing method, involves obtaining traffic real-time data by sensor, updating queuing queue to-be-determined based on current position information, and obtaining complete queuing queue corresponding to current time

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REDES VEHICULARES

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
WO2025101583A1	CONVIDA WIRELESS LLC	Apparatus e.g. wireless transmit/receive unit (WTRU) for enabling sensing enablement services in third generation partnership project (3GPP) systems for object and intruder detection for smart home using sensor, has processor that generates sensing outputs based on sensing results
WO2025122242A1	QUALCOMM INC	Apparatus for adaptive vehicle display based on user equipment communication or positioning information of wireless communication, has processor that transmits display message indicative of driver status to display of vehicle, and outputs display message using display
WO2024259724A1	QUALCOMM INC	System for performing communication-aware routing with application planning, has processing system for transmitting reservation/priority information regarding communication resources of network node of set of network nodes
WO2024262946A1	LG ELECTRONICS INC	Method for terminal to transmit message in wireless communication system, involves determining whether one of event conditions for transmitting vulnerable road user (VRU) message is satisfied based on movement of the terminal, and transmitting VRU message based on satisfaction of event condition
WO2025072066A1	CONTINENTAL AUTOMOTIVE SYSTEMS INC	Method performed by telematics control unit of parked automotive vehicle, involves turning off GNSS engine and C-V2X modem to reduce battery-power consumption relative to leave GNSS engine and C-V2X modem on when vehicle is determined to be located at known long-parking location
WO2025114365A1	AUTOLIV DEV	Mobile device e.g. smartphone for motor vehicle e.g. motorcycle for road user communication, has communication element designed to transmit situation status data to second road user arranged in vicinity of mobile device

..ver más

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GESTIÓN DE APARCAMIENTOS Y PEAJES

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
WO2025095220A1	QUANTUMEYE INC	Parking management method for recognizing target vehicle without recognizing license plate number, involves comparing extracted second license plate pattern features with first license plate pattern features registered in database
WO2025104385A1	STELLANTIS AUTO SAS	Method for managing operation of navigation system of e.g. car, involves determining whether vehicle enters or leaves parking zone subject to presentation of parking disk, and causing embedding in scene of visual content
WO2025078061A1	AUDI AG	Parking space monitoring device for motor vehicle, activates transfer mode of parking monitoring device upon fulfillment of predetermined transfer criterion, and transmits transfer signal into vehicle environment at predetermined time intervals in activated transfer mode
WO2025070484A1	SONY SEMICONDUCTOR SOLUTIONS CORP	Information processing system, has processing circuitry for recognizing position of license plate of vehicle in frames, and vehicle exits parking space in case that size of license plate at second time t1 is smaller than size of license plate at first time
WO2024262242A1	DENSO CORP	Vehicle control device for controlling vehicle e.g. car, has storage control unit which stores relative position information showing relative position to one of detected parking vehicle and parking frame with respect to vehicle in storage device
WO2024261866A1	HITACHI ASTEMO LTD	Control device of vehicle in e.g. private parking lot, has evacuation area setting unit that is provided to set candidate evacuation area determined to be usable by usability determination unit as evacuation area
WO2024253880A2	METROPOLIS TECH INC	Method for vehicle identification and enforcement, involves receiving several matching scores that comprises matching score for each entry feature vector in the set of entry feature vectors, and matching exit event to hanging entry events based on several matching scores
WO2025083346A1	STELLANTIS AUTO SAS	Method for controlling path of vehicle e.g. motor vehicle, involves determining second road route between starting geographical position and arrival geographical position passing through geographical position of parking lot, first portion of second road route and second portion of second road route
WO2025081990A1	SHANGHAI RUANJIE INTELLIGENT EQUIPMENT CO LTD	Internet of things based intelligent car parking space guiding management system, has remote control center whose output end is connected with input end of mobile terminal, where mobile terminal interacts with vehicle owner to guide vehicle owner to park in parking area recommended by control center
WO2025092853A1	CHINA MOBILE IOT COMPANY LTD	Parking space guidance method for parking lot, involves selecting optimal parking space matching current vehicle from free parking spaces, and performing parking guidance operation for current vehicle according to optimal parking space
WO2025112854A1	HUIZHOU DESAY SV AUTOMOTIVE CO LTD	Parking space identifying method, involves determining parking space corresponding to position reliability of target vehicle for satisfying preset condition as target parking space, and determining whether position reliability of target vehicle is greater than or equal to preset threshold
WO2025108362A1	GREAT WALL MOTOR CO LTD	Parking method for vehicle, involves receiving first image feature information sent by vehicle controller, and generating first parking route based on first image characteristic information and second image information
WO2025075790A1	MOTOROLA SOLUTIONS INC	Method for executing additional analytics such as heat detection, at access control point i.e. exit barrier of parking lot, involves running additional analytics on target using additional analytics resources, and allowing target to traverse control point once additional analytics are completed
WO2025098021A1	BYD CO LTD	Method for controlling parking for vehicle by using electronic device, involves determining target parking mode according to size data of parking space, generating parking path data based on parking mode, and controlling vehicle to park according to path data
WO2025123397A1	ANHUI NIO AUTONOMOUS DRIVING TECH CO LTD	Method for positioning vehicle in multi-layer car parking, involves obtaining current position information of vehicle, and locating vehicle in real time based on current horizontal position information and height position information

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WO2025091690A1	LIU JIAN	Sub-area control method for shared mobile transportation tool in shared vehicle area management field, involves dividing entire area into two sub-areas, controlling mobile transport tool to only operate in sub-area, and sending out alarm and control when mobile transportation tool exceeds sub-area
WO2025073323A1	CONTINENTAL AUTONOMOUS MOBILITY GERMANY GMBH	Method for determining parking space for parking process of vehicle, involves detecting vehicle environment of vehicle using sensor unit, where potentially usable parking space is detected in detected vehicle environment

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NOTIFICACIÓN DE ACCIDENTES

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
WO2025110874A1	UNIV DELFT TECH	Road crash emergency response method for providing emergency medical services to crash victims on e.g. highway, involves establishing spatial conditions, where spatial conditions comprise road attributes at location of road crash
WO2025121672A1	SAMSUNG ELECTRONICS CO LTD	Electronic device applied to intelligent service, has processor which displays indicator on display for providing status information of user, and provides portion of status information of user, in response to access by external electronic device to status information of user within vehicle
WO2025111282A1	HARMAN BECKER AUTOMOTIVE SYSTEMS GMBH	Method for generating report after detecting e.g. incident for vehicle, involves generating report of incident based on vehicle data and supplemental data, and transmitting report to insurance company
WO2025127175A1	KOREA ELECTRONICS TECHNOLOGY	Method for processing accident relevance information for vehicle e.g. car, involves generating accident relevance information for target vehicle according to driving description information based on cluster, feature elements, and generated embedding vector of driving description information
WO2025093637A1	KOSCHANY GUIDO	System for reporting emergency during accident detection and damage detection of cargo hold of freight transporter by electronic call system, has environmental condition detection unit provided with environmental condition sensor for detecting environmental condition value
WO2025081743A1	SICHUAN DIGITAL TRANSP TECH CO LTD	Method for pre-warning road secondary accidents, involves sending alarm information to predetermined position if background receives alarm instruction sent to predetermined position around target vehicle

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OTRAS REFERENCIAS

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
WO2025118680A1	JIANGSU NEW VISION AUTOMOTIVE ELECTRONICS CO LTD	Display control method for head-up display (HUD) device used in vehicle, involves acquiring road condition information ahead of vehicle, and controlling moving speed of movable fragmented image elements according to road condition information ahead
WO2025115813A1	SUMITOMO ELECTRIC INDUSTRIES	Behavior prediction device e.g. stationary or portable computer or workstation for behavior prediction system, has aggregation unit that aggregates entry indicators of each pedestrian to obtain composite indicator indicating possibility that one of pedestrian enters first area
WO2025115556A1	HITACHI LTD	Traffic management system for use in vehicle management system for managing traffic of electric vehicle, has power consumption calculation unit that is provided for calculating power consumption of driving route based on estimated load
WO2025069192A1	SUBARU CORP	Driving assistance device such as cruise control device mounted in vehicle, has control unit for predicting possibility that second vehicle changes lanes from congested lane to second lane based on predicted time obtained by prediction
WO2025071129A1	MOVEAWHEEL INC	Road surface type estimation device using vehicle-mounted sensor, has artificial neural network that uses filtered digital signal as input signal and classifies input signal based on learned road surface classification model to estimate type of road surface
WO2025077651A1	GUANGZHOU AUTOMOBILE GROUP CO	Narrow road traffic control method for use in vehicle, involves prompting user to start tracking reverse according to vehicle trajectory information during driving process of narrow road vehicle when narrow road section cannot be passed
WO2025082796A1	BOSCH GMBH ROBERT	Method for warning of latent collision risk of e.g. motor vehicle in traffic jam to driver, involves providing approach warning to driver of host vehicle in response to detection of latent collision risk between host vehicle and following other vehicle
WO2025100179A1	STANLEY ELECTRIC CO LTD	Attention calling system installed around driver seat inside vehicle e.g. four-wheeled vehicle, has controller that performs second notification displaying in second range including gaze direction and being wider than first range when driver does not visually recognize specific object
WO2025109523A1	TECH INNOVATION INSTITUTE	Method for facilitating accident analysis to enhance public safety and develop road regulations, involves aligning encoded sensor readings, and generating output associated with traffic accident using encoded sensor readings by multi-modal model
WO2025078862A1	XIAO I PLUS INC	Control system for e.g. speed measurement gun for special vehicle, has vehicle-mounted terminal for determining target vehicle-mounted device for executing vehicle-end task from vehicle-mounted devices provided on vehicle and triggering target vehicle-mounted device to execute vehicle-end task
WO2025103960A1	BAREWAYS GMBH	Method for generating round trip in network of transport lines e.g. road based on geospatial data i.e. latitude and longitude, involves connecting determined route segments to obtain round trip from starting point through intermediate points to endpoint
WO2025114027A1	ZF CV SYSTEMS GLOBAL GMBH	Method for controlling a driver assistance system in bus or tram, involves providing an electronically controllable drive motor and an electronically controllable service brake system with pressure medium-actuated wheel brake cylinders
WO2025123894A1	VOYAH AUTOMOBILE TECH COMPANY LTD	Green wave traffic control method for vehicle, involves determining state of target vehicle speed, detecting whether there is target lane, and controlling self-vehicle to change lane to target lane and to accelerate if target lane is present
WO2025113392A1	CHINA MOBILE IOT COMPANY LTD	Method for determining traffic risk value by using electronic device, involves obtaining preset real-time information of traffic accident multi-occurrence area, and determining target real-to-real-time risk score based on first and second real time risks

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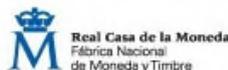
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