

Boletín VT

COCHE INTELIGENTE 42

2º trimestre 2020

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

NIPO: 116-19-010-1

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.

GESTIÓN DEL TRÁFICO

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
WO 2020075560 A1	SUMITOMO ELECTRIC INDUSTRIES	Traffic time prediction device, traffic time prediction system, traffic time prediction method, acquisition method of traffic information, and traffic time prediction program
WO 2020068923 A1	NOEL MELODIE	Monitoring and reporting traffic information
WO 2020066812 A1	KYOCERA CORP	Traffic communications system, base station, and traffic control method
WO 2020058057 A1	SMEV AG SMART MOBILITY EVOLUTION	Method and device for influencing autonomous alternating light signaling systems
WO 2020124305 A1	BEIJING DIDI INFINITY TECHNOLOGY & DEV CO LTD	Systems and methods for determining traffic conditions
WO 2020119593 A1	SHENZHEN INST ADV TECH	Congestion diffusion-based traffic bottleneck prediction method and system, and electronic device
WO 2020126761 A1	JENOPTIK ROBOT GMBH	Method and controller for setting up traffic monitoring for a monitoring location, and system for carrying out traffic monitoring for a monitoring location
WO 2020071040 A1	SUMITOMO ELECTRIC SYSTEM SOLUTIONS CO LTD	Traffic index computation device, computation method, traffic signal control system, and computer program
WO 2020135141 A1	ALIBABA GROUP HOLDING LTD	Traffic road network description method and device
WO 2020125297 A1	NINGBO GEELY AUTOMOBILE RES & DEVELOPMENT CO LTD	Time for passage of a platoon of vehicles
WO 2020131224 A2	QUALCOMM INC	Intelligent and adaptive traffic control system
WO 2020122830 A1	CIFTCI ABDURRAHIM	Smart traffic lights system
WO 2020123131 A1	ASTECC INC	Road sensor system
WO 2020116767 A1	BITSENSING INC LEE JAE EUN	Traffic management server, and method and computer program for traffic management using same
WO 2020082158 A1	FLEETMIND SEON SOLUTIONS INC	Traffic monitoring and predictive analysis system for use with vehicle stop indicator systems
WO 2020077529 A1	BEIJING DIDI INFINITY TECHNOLOGY & DEV CO LTD	Adaptive traffic control using vehicle trajectory data
WO 2020101474 A1	MIMOS BERHAD	A continuous journey scheduling system
WO 2020102885 A1	FORTTRAN TRAFFIC SYSTEMS LTD	Systems and methods for managing traffic flow using connected vehicle data
WO 2020102399 A1	MAGNA INT INC	System and method for vehicle routing using big data

[..ver más](#)

REDES VEHICULARES

Nº PUBLICACIÓN SOLICITANTE CONTENIDO TÉCNICO

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
WO 2020075560 A1	SUMITOMO ELECTRIC INDUSTRIES	Traffic signal information distribution system and traffic signal information distribution method
WO 2020131469 A1	DISH NETWORK LLC	Multi-path routing of networked automated vehicles
WO 2020081176 A1	OMNITRACS LLC	Blockchain-based hours-of-service system
WO 2020132067 A1	ZOOX INC	Adaptive multi-network vehicle architecture
WO 2020088815 A1	HUAWEI TECH CO LTD	Sidelink device for providing sidelink quality of service information
WO 2020139393 A1	DIDI RES AMERICA LLC	Message buffer for communicating information between vehicle components
WO 2020123285 A1	TDK CORP	Rotatable smart wheel systems and methods
WO 2020093002 A1	KYOCERA CORP	Reservation channel transmission forwarding in vehicle-to-vehicle communications
WO 2020104551 A1	BOSCH GMBH ROBERT	Object recognition using the sensor system of vehicles
WO 2020085120 A1	KYOCERA CORP	Base station, transport communication system, and control method
WO 2020094757 A1	CONTINENTAL AUTOMOTIVE FRANCE	Method for transmitting frames between communication networks of a motor vehicle
WO 2020084908 A1	SUMITOMO ELECTRIC INDUSTRIES	Detection device, gateway device, detection method, and detection program
WO 2020088084 A1	HUAWEI TECH CO LTD	Internet of vehicles communication method, positioning method, and internet of vehicles communication apparatus
WO 2020094724 A1	EBERLE DESIGN INC	Traffic validation system and method
WO 2020087437 A1	GUANGDONG OPPO MOBILE TELECOMMUNICATIONS CORP LTD	User equipment and method of wireless communication of same
WO 2020096509 A1	SCANIA CV AB	Minimizing perceived communication downtime for vehicle group
WO 2020105759 A1	LG ELECTRONICS INC	Communication device, control method thereof, and communication system including same
WO 2020106201 A1	SCANIA CV AB	Method, computer program, control unit for detecting faults in a driver-assistance system and vehicle

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GESTIÓN DE APARCAMIENTOS Y PEAJES

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
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WO 2020058741 A1	NISSAN MOTOR RENAULT SAS	Automatic driving control method and automatic driving control system
WO 2020129688 A1	SONY CORP	Vehicle control device, vehicle control method, vehicle, information processing apparatus, information processing method, and program
WO 2020088911 A1	BAYERISCHE MOTOREN WERKE AG	Assisting a parking process of a motor vehicle
WO 2020074153 A1	AUDI AG	Method for managing a car park bay of a parking infrastructure, and electronic car park management system
WO 2020129360 A1	TOKAI RIKA CO LTD	Parking position confirmation system
WO 2020079724 A1	MITSUBISHI HEAVY IND	Central device, management device, central device control method, management device control method, central device control program, and management device control program
WO 2020135141 A1	ALIBABA GROUP HOLDING LTD	Traffic road network description method and device
WO 2020126205 A1	BOSCH GMBH ROBERT	Method and device for determining the state of availability of a parking space
WO 2020079794 A1	MITSUBISHI ELECTRIC CORP	Intra-parking lot driving assistance device and intra-parking lot driving assistance method
WO 2020079832 A1	MITSUBISHI HEAVY IND	Parking management system, parking management method, and program
WO 2020102165 A1	CUBIC CORP	Autonomous vehicle smart parking ticket
WO 2020084742 A1	MITSUBISHI HEAVY IND	Monitoring device, monitoring device control method, and program
WO 2020104638 A1	COMPANEER GMBH	Security gate system, use of such a security gate system and arrangement of restricting elements
WO 2020114982 A1	SIEMENS MOBILITY LTD	Vehicle recognition system and method
WO 2020116906 A1	KIM NAM A	System and method for automatic management of unmanned parking lot
WO 2020123978 A1	GALATEA TECH LLC	Parking meter free nfc park and pay
WO 2020085344 A1	TOKAI RIKA CO LTD	Entry/exit management system
WO 2020123859 A1	MORAN MARK J	Parking methods and systems
WO 2020084746 A1	MITSUBISHI HEAVY IND	Roadside device, central device, roadside device control method, roadside device control program, central device control method, and central device control program
WO 2020095672 A1	HITACHI AUTOMOTIVE SYSTEMS LTD	Vehicular control device, route distribution device, and vehicular guidance system
WO 2020082165 A1	RAYTHEON CANADA LTD	All seeing one camera system for electronic tolling
WO 2020117977 A1	SIDEWALK LABS LLC	Methods, systems, and media for coordinating parking availability
WO 2020114887 A1	BAYERISCHE MOTOREN WERKE AG	Collection of vehicle-specific toll charges for a motor vehicle
WO 2020099132 A1	BOSCH GMBH ROBERT	Creation and updating of maps in the off-street area

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NOTIFICACIÓN DE ACCIDENTES

Nº PUBLICACIÓN SOLICITANTE CONTENIDO TÉCNICO

WO 2020072900 A1	CONTINENTAL AUTOMOTIVE SYSTEMS INC	System and method for erratic driver alert
WO 2020064363 A1	ZAHNRADFABRIK FRIEDRICHSHAFEN	Backend apparatus for triggering an automatic emergency call for at least one vehicle, vehicle control unit for vehicle-to-environment communication, system for triggering an automatic emergency call, method for triggering an automatic emergency call, and computer program product for a backend apparatus
WO 2020058453 A1	RHEINMETALL ELECTRONICS GMBH	Arrangement comprising a contactless smart card, a garment for emergency personnel comprising an accommodating device for accommodating the smart card and comprising an electronic system, and method for operating such an arrangement
WO 2020057790 A2	JAGUAR LAND ROVER LTD	A control system for a vehicle
WO 2020135141 A1	ALIBABA GROUP HOLDING LTD	Traffic road network description method and device
WO 2020093625 A1	BEIJING BORGWARD AUTOMOBILE CO LTD	Method, apparatus, storage medium, electronic device and program for sending information
WO 2020110446 A1	SUMITOMO ELECTRIC INDUSTRIES	Vehicle malfunction prediction system, monitoring device, vehicle malfunction prediction method, and vehicle malfunction prediction program
WO 2020101071 A1	HUMANPLUS CO LTD	Traffic monitoring system using lidar capable of providing notification of road obstacle and tracking vehicle

[...ver más](#)

OTRAS REFERENCIAS

Nº PUBLICACIÓN	SOLICITANTE	CONTENIDO TÉCNICO
WO 2020051657 A1	MACHADO DO PRADO UBIRATAN	Traffic lights combined with a display for exhibiting visual information and advertising for institutional purposes exclusively of public/private interest
WO 2020129656 A1	SONY SEMICONDUCTOR SOLUTIONS CORP	Information processing device, information processing method, and program
WO 2020136840 A1	PIONEER CORP	Accident index calculation device, information providing device, content selection device, insurance premium setting device, accident index calculation method, and program
WO 2020099322 A1	HUF HUELSBECK & FUERST GMBH	Access control device for emergency actuation and associated method
WO 2020135141 A1	ALIBABA GROUP HOLDING LTD	Traffic road network description method and device
WO 2020108803 A1	AUDI AG	Method for operating a virtual-reality output device, synchronisation unit, motor vehicle
WO 2020086015 A1	INNOMEL MUHENDISLIK SANAYI VE TICARET LTD SIRKETI	A system that perceives, reports fatigue and distraction of the driver and processes big data and a method of its implementation
WO 2020091286 A1	AMOTECH CO LTD	Method and system for precise position estimation for vehicle over uwb
WO 2020089039 A1	BOSCH GMBH ROBERT	Method for the vehicle-based verification of at least one detected dangerous place
WO 2020094713 A1	ZAHNRADFABRIK FRIEDRICHSHAFEN	System and method for detecting counterfeit parts in a vehicle
WO 2020113186 A1	PACCAR INC	Error-resilient over-the-air software updates for vehicles
WO 2020114779 A1	BAYERISCHE MOTOREN WERKE AG	System and method for actuating a vehicle system
WO 2020094264 A1	BAYERISCHE MOTOREN WERKE AG	Method and apparatus for determining information related to a lane change of a target vehicle, method and apparatus for determining a vehicle comfort metric for a prediction of a driving maneuver of a target vehicle and computer program
WO 2020095904 A1	DENSO CORP	Operation management apparatus and operation management system
WO 2020101154 A1	KIM YOUNGHUN	Event detection system for analyzing and storing real-time other-user vehicle speed and distance
WO 2020111615 A1	KOREA INST IND TECH	Device for checking whether passenger has alighted from vehicle, and system and method for checking whether passenger has alighted from vehicle using same
WO 2020108839 A1	BOSCH GMBH ROBERT	Situation-dependent calculation of a desired vehicle speed
WO 2020107020 A1	VOLVO CAR CORP	Lidar-based multi-person pose estimation

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LANZAMIENTO



Los ITPs** de la OEPM nos han ahorrado horas de revisión bibliográfica para definir el punto de partida de nuestros proyectos de I+D.



EJECUCIÓN



Los ITPs** de la OEPM detectaron solicitudes de patente relevantes cuando estábamos a mitad del proyecto y gracias a ello pudimos reconducir nuestra investigación.



CONCLUSIÓN

¿Son patentables nuestros resultados?



Gracias a los ITPs** de la OEPM hemos podido decidir la mejor forma de protección de nuestros resultados de I+D y redactar adecuadamente nuestras solicitudes de patente.



* La OEPM cuenta con más de 150 examinadores de patentes especializados en los diversos sectores tecnológicos y en la búsqueda de información científico-técnica.

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