ANTENA TECNOLÓGICA

Boletín de novedades

Agosto - Septiembre 2015

Sector Autopartes

Innovaciones tecnológicas

Seguridad, conectividad y sustentabilidad

ANTENA TECNOLÓGICA

Boletín de novedades

Agosto - Septiembre 2015

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PUBLICACIONES CIENTÍFICAS

Posicionamiento lateral preciso a partir de la detección de marcas de datos de mapas y carreteras

Publicada el 28/08/2015

Publication date: Available online 28 August 2015 Source:Expert Systems with Applications Author(s): Dominique Gruyer, Rachid Belaroussi, Marc Revilloud We are witnessing the clash of two industries and the remaking of in-car market order, as the world of digital knowledge recently made a significant move toward the automotive industry. Mobile operating system providers are battling between each other to take over the in-vehicle entertainment and information systems, while car makers either line up behind their technology or try to keep control over the in-car experience. What is at stake is the map content and location-based services, two key enabling technologies of self driving cars and future automotive safety systems. These content-based augmented geographic information systems (GIS) as well as Advanced Driver Assistance Systems (ADAS) require an accurate, robust, and reliable estimation of road scene attributes. Accurate localization of the vehicle is a challenging and critical task that natural GPS or classical filter (EKF) cannot reach.

ver más...

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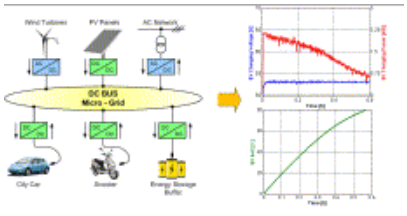
Autopartes - Seguridad, conectividad y

Estudio experimental de una estación de carga de DC para vehículos híbridos y eléctricos enchufables

Publicada el 15/08/2015



Publication date: 15 August 2015. Source: Applied Energy, Volume 152 Author(s): Clemente Capasso , Ottorino Veneri This paper is aimed to analyze design criteria, setting up, control strategies and experimental tests related to a power configuration of DC micro-grid for fast charging of full electric and plug in hybrid vehicles. The proposed DC fast charging architecture is derived by an analysis comparing the main characteristics of well known architectures, mainly based on AC and DC bus, taking also into account the integration of renewable energy sources (RESs) with stationary energy storage systems and fleets of road electric/hybrid vehicles. On the base of the proposed architecture a laboratory prototype of charging station has been realized by means of a 20kW AC/DC bidirectional grid tie converter interconnected with two different power DC/DC converters of similar rated power. In this micro-grid architecture the AC/DC converter realizes a conversion stage at 790V DC, whereas other two converters allow either the electric vehicle battery packs to be charged or an energy storage buffer to save electric energy and support the main grid during the fast charging operations.

ver más...

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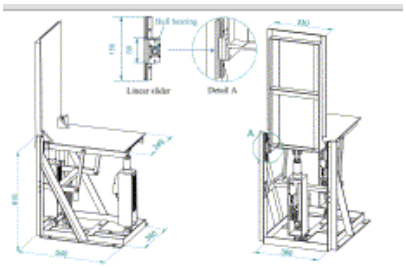
Autopartes - Seguridad, conectividad y

Control adaptativo de asiento activo para la reducción de la vibración de ocupantes

Publicada el 04/08/2015



Publication date: 4 August 2015 Source:Journal of Sound and Vibration, Volume 349 Author(s): Zengkang Gan , Andrew J. Hillis , Jocelyn Darling The harmful effects on human performance and health caused by unwanted vibration from vehicle seats are of increasing concern. This paper presents an active seat system to reduce the vibration level transmitted to the seat pan and the occupants' body under low frequency periodic excitation. Firstly, the detail of the mechanical structure is given and the active seat dynamics without external load are characterized by vibration transmissibility and frequency responses under different excitation forces. Owing the nonlinear and time-varying behaviour of the proposed system, a Filtered-x least-mean-square (FXLMS) adaptive control algorithm with on-line Fast-block LMS (FBLMS) identification process is employed to manage the system operation for high vibration cancellation performance.

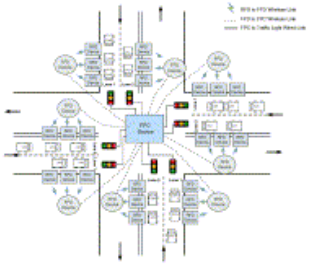
ver más...

Volver al índice

Autopartes - Seguridad, conectividad y

Enfoque novedoso para gestión dinámica de luces de tránsito basada en redes de sensores inalámbricos y múltiples controles lógicos borrosos

Publicada el 01/08/2015

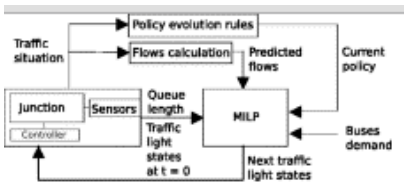


Publication date: 1 August 2015 Source: Expert Systems with Applications, Volume 42, Issue 13 Author(s): Mario Collotta , Lucia Lo Bello , Giovanni Pau This paper proposes a novel approach to dynamically manage the traffic lights cycles and phases in an isolated intersection. The target of the work is a system that, comparing with previous solutions, offers improved performance, is flexible and can be implemented on off-the-shelf components. The challenge here is to find an effective design that achieves the target while avoiding complex and computationally expensive solutions, which would not be appropriate for the problem at hand and would impair the practical applicability of the approach in real scenarios. The proposed solution is a traffic lights dynamic control system that combines an IEEE 802.15.4 Wireless Sensor Network (WSN) for real-time traffic monitoring with multiple fuzzy logic controllers, one for each phase, that work in parallel.

ver más...

Sistema interactivo multiobjetivo para control de tráfico adaptativo

Publicada el 16/07/2015



Publication date: 16 July 2015. Source: European Journal of Operational Research, Volume 244, Issue 2 Author(s): Yann Dujardin , Daniel Vanderpooten , Florence Boillot In this paper, we consider the problem of adaptive traffic control on single junctions with the three following objectives to be minimized: the total waiting time and the number of stops for private vehicles, and a public transport criterion. This problem being modeled as a multi-objective mixed integer linear program, we provide an interactive system based on an adaptive reference point approach.

ver más...

Volver al índice

Autopartes - Seguridad, conectividad y

Definiendo un marco de plataforma de red de convergencia para red inteligente y sistemas de transporte inteligentes

Publicada el 07/07/2015

Publication date: 7 July 2015 Source:Energy Author(s): Adrian E. Coronado Mondragon , Etienne S. Coronado , Christian E. Coronado Mondragon The challenges faced by electricity grids suggest smart grids will have to coordinate its operation with other important initiatives in areas such as transportation. The smart grid relies on the use of network platforms where meter readings and data can be transmitted. On the other hand, concerning transportation systems the need to achieve a reduction of road congestion and traffic accidents among the increasing use of electric vehicles has consolidated the importance of ITS (intelligent transport systems). Given the magnitude of the challenges faced by both the smart grid and ITS, the aim of this work is to identify the elements comprising a convergence platform capable of supporting future services for data traffic associated to smart grid operations as well as ITS-related commercial service applications and road traffic safety messaging.

ver más...

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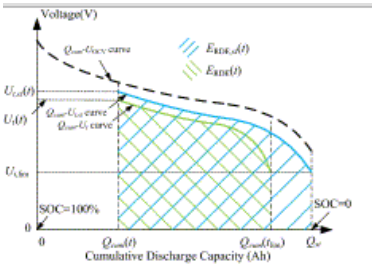
Autopartes - Seguridad, conectividad y

Un método predictivo-adaptivo de alta precisión para predicción de energía restante de descarga en baterías de ion-litio en aplicaciones de vehículos eléctricos

Publicada el 01/07/2015



Publication date: 1 July 2015 Source:Applied Energy, Volume 149 Author(s): Guangming Liu , Minggao Ouyang , Languang Lu , Jianqiu Li , Jianfeng Hua In order to estimate the remaining driving range (RDR) in electric vehicles, the remaining discharge energy (E RDE) of the applied battery system needs to be precisely predicted. Strongly affected by the load profiles, the available E RDE varies largely in real-world applications and requires specific determination. However, the commonly-used direct calculation (DC) method might result in certain energy prediction errors by relating the E RDE directly to the current state of charge (SOC). To enhance the E RDE accuracy, this paper presents a battery energy prediction (EP) method based on the predictive control theory, in which a coupled prediction of future battery state variation, battery model parameter change, and voltage response, is implemented on the E RDE prediction horizon, and the E RDE is subsequently accumulated and real-timely optimized.

ver más...

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Autopartes - Seguridad, conectividad y

PROYECTOS

Almacenamiento de energía con costo reducido y seguridad y confiabilidad mejorada para vehículos eléctricos

Publicada el 25/08/2015

High costs together with concerns for driving range, reliability and safety are still the main hindrance for market adaption of full electrical vehicles (FEVs). ESTRELIA aims to provide building blocks with enhanced reliability and safety at lowered costs for smart energy storage for FEVs.This is accomplished by proposing a modular approach with ultracapacitor power packs with higher density with 50% energy advantage developed by Corning and evaluated by Valeo and Austrian Battery Research Lab. This will be enabled by BMS ICs based on a new concept in the HV-technology from austriamicrosystems enhancing also the modularity of Li-Ion batteries as energy packs. It will for the first time provide a flexible active cell balancing chip set also suited for the high accuracy demanding monitoring of Li-Ion batteries.

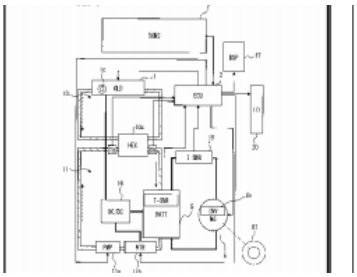
ver más...

Autopartes - Seguridad, conectividad y

PATENTES

Aparato de frenado regenerativo para vehículo eléctrico

Publicada el 26/08/2015



A regenerative braking apparatus has an inverter. The inverter uses the rotational energy of the wheels to let the motor generator generate electric power for the purpose of providing regenerative braking. The regenerative braking apparatus also includes a refrigeration cycle unit and a heating cycle unit. The refrigeration cycle unit compresses a refrigerant with the electric power of the battery in order to heat a heat exchanger. The heating cycle unit is a unit in which a medium heated by the heat exchanger flows to heat the battery. When the battery is in a fully charged state where the battery cannot be charged with regenerative electric power of the motor generator, the regenerative braking apparatus exercises electric power consumption control to force the refrigeration cycle unit and the heating cycle unit to consume the electric power of the battery.

ver más...

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Autopartes - Seguridad, conectividad y

Sistema para la gestión de áreas de estacionamiento reguladas

Publicada el 26/08/2015

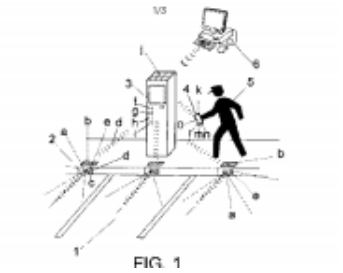


FIG. 1

According to the invention, integrated in each regulated parking space (1) is a space-monitoring device (2) having the corresponding control electronics associated with a radio frequency communications module, and with a sensor (a) for detecting vehicles, such that the different space-monitoring devices (2) communicate via radio frequency (d) with the area-controlling device (3) where all the information regarding the spaces assigned to said area is centralised, said area-controlling device being provided with a telematic network (telephone line, ADSL, Wi-Fi, etc.) from which the corresponding system operations are carried out, as well as the bank transactions and communication with a control centre (6). The users can pay via an application installed on their mobile telephone, via a device similar to those used in electronic toll payment systems, or via a chip, RFID card or circuit integrated into the vehicle and associated with the radio of same.

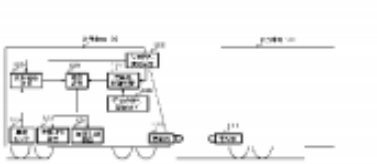
ver más...

Volver al índice

Autopartes - Seguridad, conectividad y

Sistema de control para conexión entre vehículos

Publicada el 19/08/2015



Provided is a vehicle connection control system in which, when connecting the connectors (111, 121) of a leading vehicle (101) and a following vehicle (102), position information for two or more feature points on a connection surface of the leading vehicle (101) and arrangement information for the connector (111) are recorded ahead of time in a feature point information recording device (128) of the following vehicle (102). A position information measurement device (122) that is mounted to the following vehicle (102) identifies each of feature points, measures position information therefor, and identifies the position of the connector (121) with respect to the connector (111) on the basis of the position information and the arrangement information for the connector (111) with respect to the feature points. The following vehicle (102) comprises a safety device (129) that derives a travel route and a speed until the connectors (111, 121) connect, controls a turning control device (124) and a speed control device (123), and safely and smoothly attaches the connectors to one another. In addition, road surface equipment is unnecessary because connection control is completed on the vehicle side.

ver más...

Volver al índice

Autopartes - Seguridad, conectividad y

Sistema y método para optimizar el consumo energético en un vehículo híbrido eléctrico

Publicada el 19/08/2015

A system and method for optimizing the consumption of fuel in a hybrid electric vehicle is disclosed. A Hybrid Efficiency Index (HEI) is used to quantify a relative efficiency advantage achievable with the expenditure of electrical energy at a given power level. Also disclosed is a minimum efficiency threshold useful for determining which HEI values will result in the optimum use of electrical energy throughout the operation of the vehicle. Methods for adjusting the minimum efficiency threshold with respect to regenerative braking events, storage capacity in the energy storage system, along with other aspects are disclosed as well.

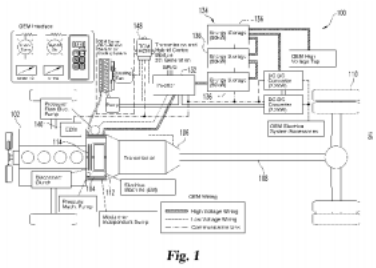


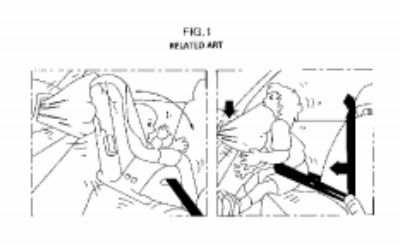
Fig. 1

ver más...

Aparato para controlar sistemas inteligentes de airbag utilizando estructura de doble cámara

Publicada el 13/07/2015

An apparatus for controlling a smart airbag system using a dual chamber structure may include a gas generator to eject hot gas at the time of a car crash, a gas chamber which receives the hot gas ejected from the gas generator and transfers the hot gas into an airbag, and a fluid chamber which cools the hot gas by spraying stored fluid, before it is introduced into the airbag.



ver más...

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Autopartes - Seguridad, conectividad y

Sistema y método para controlar la velocidad de un vehículo

Publicada el 08/07/2015

A method for controlling the speed of vehicle is provided. The method comprises providing a memory device configured to store a plurality of predefined set-speeds therein. The method further comprises selecting a desired set-speed from the plurality of predefined set-speeds stored in the memory device. The method may further comprise determining whether the selected set-speed is appropriate based on one or more conditions. The method may still further comprise causing the vehicle to operate in accordance with the selected set-speed when it is determined that the set-speed is appropriate.

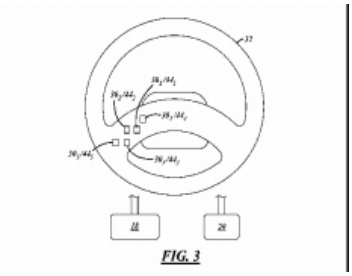
FIG. 3

ver más...

Sistema de seguridad de automóviles que recibe y muestra imágenes infrarrojas para detectar peligros en ambientes oscuros y método de fotografía de imágenes infrarrojas

Publicada el 01/07/2015

Displaying an infrared image taken by the vehicle to detect a safety hazard in a dark environment, the infrared imaging system and method are disclosed.
Installed outside the vehicle for this purpose is installed in the light sensor, for sensing the external brightness vehicle, and then emits infrared radiation, infrared radiation emitted to the object; If the hit reflection it up by the infrared camera unit composed of a plurality of the infrared camera to generate an infrared image, the infrared image signal processing to the signal processing generated by a infrared camera, signal processed infrared image display unit is displayed through the signal processing unit , via the ambient light sensor; When the detected brightness is lower than a preset reference exterior illumination and provides a vehicle security system including a control unit for controlling the infrared camera to generate an infrared image.

ver más...

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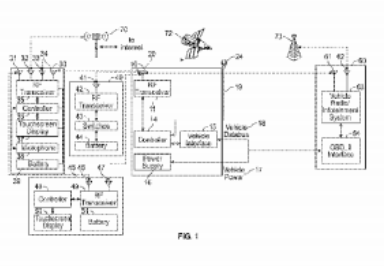
Autopartes - Seguridad, conectividad y

Sistema de vehículos conectados con interfaz de entretenimiento e información para dispositivos móviles

Publicada el 01/07/2015

An OBD module comprising a controller; a data bus interface configured to draw power from and electronically communicate with a vehicle OBD-II data port; and a digital interface connector is disclosed. A radio/infotainment interface configured to communicate with the OBD module is disclosed.



ver más...

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Autopartes - Seguridad, conectividad y

NOTICIAS

Connecticut ofrece descuentos en vehículos de avanzada tecnología

Publicada el 29/08/2015

Some leaders in Connecticut are so confident in the state's new electrified vehicle rebate, they believe the state can sell them more effectively than California. "We're a small state, but we have some big ideas, and maybe we can show California how to do this," said Jim Fleming, president of the Connecticut Automotive Retailers Association.

ver más...

Ford presenta patente de prototipo autónomo

Publicada el 28/08/2015

Un groupe d'employés de Ford a déposé un brevet sur un concept de voiture autonome avec des sièges reconfigurables.

ver más...

Autopartes - Seguridad, conectividad y

Smart Cabrio 2016: foto y características

Publicada el 27/08/2015

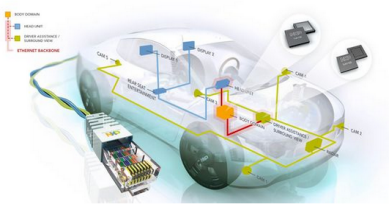
Dopo il nostro primo contatto sulle strade di San Francisco la citycar cabriolet è pronta a debuttare al Salone di Francoforte 2015. Smart ha infatti annunciato che la due posti open top sarà presentata ufficialmente durante la kermesse tedesca in programma la terza settimana di settembre. La nuova Smart Cabrio però è molto più che una semplice vettura: la citycar racchiude infatti tre diverse tipologie di auto grazie alla nuova capote tritop retraibile elettricamente.

ver más...

NXP anuncia un portafolio Ethernet automotriz completo; tecnología de gran banda ancha para conducción autónoma y vehículos conectados de forma segura.

Publicada el 12/08/2015

The portfolio builds on BroadR-Reach—an automotive standard defined by the OPEN Alliance industry group, with the aim to make consumer-level Ethernet capable of meeting the automotive industry's stringent requirements.



ver más...

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Autopartes - Seguridad, conectividad y

GM abre campo de pruebas de tecnologías de seguridad

Publicada el 27/07/2015

General Motors has opened a new 52-acre Active Safety Test Area at its Milford Proving Ground near Detroit. The American automaker promises to offer 22 different active safety technologies across its 2016 model year U.S. lineups, and will be using the new Active Safety Test Area to develop those technologies. Expect features ranging from driver [...] The post Safety Technology Testing Ground Opened By GM appeared first on HybridCars.com.

ver más...

El software de control de NAHLE combina GPS y datos topográficos del camino para gestionar consumo energético híbrido.

Publicada el 20/07/2015

As part of the continuing development of MAHLE's range-extended electric vehicle (REEV) initiative (described and demonstrated at the Aachen Colloquium in 2012), the company's Powertrain division has developed control software which can manage the consumption of battery energy for plug-in hybrids through a combination of GPS (global positioning systems) and topographical road data.

ver más...

Volver al índice

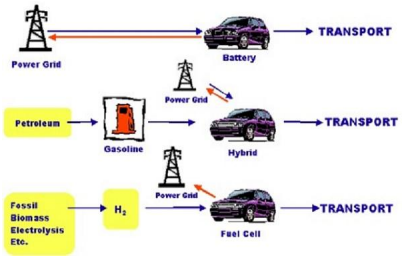
Autopartes - Seguridad, conectividad y

Vehículos electrificados proveerán energía a la red.

Publicada el 15/07/2015

It’s a concept that’s been slowly building momentum for about 20 years: not only can electrified vehicles draw power from the grid, but they can also be used to supply power in return.

ver más...



Diseño conceptual de Volvo podría revolucionar la geguridad de asientos de bebé

Publicada el 06/07/2015

The company is showing off the Excellence Child Seat concept that builds off the XC90 Excellence Lounge Console concept that debuted earlier this year. This new baby-friendly concept gives parents the ability to swivel the seat counter-clockwise when seating the child and then locking the seat in a rearward facing position. In addition, the concept adds storage for items such as diapers and blankets at the front of the seat under the dash.

ver más...

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Autopartes - Seguridad, conectividad y

NORMATIVAS TÉCNICAS

ISO 21214:2006 – Sistemas de transporte inteligente - Acceso a las comunicaciones para sistemas móviles terrestres infrarrojos

Publicada el 23/07/2015

SO 21214:2006 determines the air interface using infra-red systems at 820 nm to 1 010 nm.
It provides protocols and parameters for medium-range, medium- to high-speed wireless communications in the ITS sector using infra-red systems.

ver más...

ISO 24534-4:2010 - Vehículos automáticos e identificación de equipamiento -- Identificación por Registro Electrónico (ERI) para vehículos -- Parte 4: Comunicaciones seguras usando técnicas asimétricas

Publicada el 14/07/2015

ISO 24534-4:2010 provides requirements for electronic registration identification (ERI) that are based on an identifier assigned to a vehicle (e.g. for recognition by national authorities) suitable to be used for: electronic identification of local and foreign vehicles by national authorities; vehicle manufacturing, in-life maintenance and end-of-life identification (vehicle life cycle management); adaptation of vehicle data (e.g. for international resales); safety-related purposes; crime reduction; commercial services.

ver más...

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Autopartes - Seguridad, conectividad y

ISO 6312:2010 - Vehículos de carretera -- Revestimientos para frenos - Procedimiento de pruebas de corte en almohadillas en discos de freno y zapatas en tambores de freno

Publicada el 14/07/2015

ISO 6312:2010 specifies a method for measuring the strength of the bond connection between the lining material and the carrier in disc brake pad and drum brake shoe assemblies (shear strength). ISO 6312:2010 is applicable to assemblies that are integrally moulded, bonded or that use mechanical retention systems (MRS) of both types used for brakes on road vehicles. ISO 6312:2010 does not apply to riveted assemblies.

ver más...

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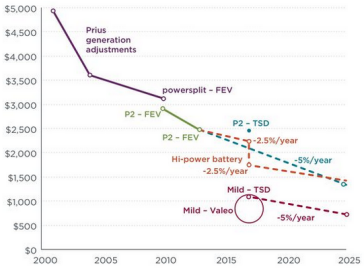
Autopartes - Seguridad, conectividad y

MERCADO

ICCT: reducciones de costos en sistemas híbridos podrían acercarlos al consumo masivo en 2025

Publicada el 27/07/2015

According to a new technology briefing paper on hybrid system technologies by John German at the International Council on Clean Transportation (ICCT), the costs of full-function hybrid systems are likely to drop to half the cost of their 2010 counterparts before 2025.



ver más...

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Autopartes - Seguridad, conectividad y

EVENTOS

Conferencia Anual Polis 2015 sobre "Innovación en transporte para ciudades y regiones sustentables"

Publicada el 08/07/2015

19-20 November 2015. Brussels, Belgium. This year's Annual Polis Conference on "Transport innovation for sustainable cities and regions" will take place on 19 and 20 November 2015 in Brussels. Side events and Polis' Annual General Assembly (AGA) are scheduled for 18 November.

ver más...

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Para más información:
Programa Nacional de Vigilancia Tecnológica e Inteligencia Competitiva · VINTEC
Dirección Nacional de Estudios (DNE) · Subsecretaría de Estudios y Prospectiva
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