New Model of Vehicle-Mounted Fiber Optic Distribution Network Automation

This paper proposes an innovative neural network-based fiber optic sensing system for vehicle classification, aiming to enhance road maintenance management precision and enable large ...

Newly developed chips and connectors enable data to be transmitted via automotive-grade optical fibers according to the IEEE 802.3cz standard. High data transmission rates and reliability are ...

To do so, propose a method to track a vehicle along the road by localizing vehicle positions in DFOS data and checking for any lane change behaviour by monitoring vehicle vibration intensities and ...

In the above-presented context, this article introduces a new VLC application: the use of VLC technology for in-vehicle communications purposes with the help of optical fiber distributed light.

The proposed solution demonstrates that existing optical fiber networks can be effectively repurposed for low-power, real-time traffic monitoring using dedicated embedded hardware.

o Now, a Network in Motion enables a rich data network surrounding you with your devices and an "active environment"; o To enable this level of connectivity, wireless and fiber optic transport should ...

This technology harnesses the inherent properties of standard fibre-optic cables, typically buried alongside the roadway, transforming them into highly sensitive distributed sensors capable of ...

Hinge Technology develops an EEA communication architecture based on optical modules. This model, customizable according to OEM requirements, utilizes multiple optical modules and area gateways ...

On November 7, 2024, Werner Coomans of Nokia Bell Labs presented a technological solution to support future vehicle network requirements using optical broadband technologies.

We present a new approach for intra-vehicle network utilizing gratings and WDM transmission over a 5m MMF link. Neural network is employed for post equalization to achieve 50.26 Gbps using five ...

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