عنوان مقاله:

Design of Smart Roads and Review of Applications and Overview of Sensor Systems in Smart Roads

محل انتشار:

دومین کنفرانس برق، مکانیک ،هوافضا، کامپیوتر و علوم مهندسی (سال: 1402)

تعداد صفحات اصل مقاله: 14

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خلاصه مقاله:

Intelligent metropolises are developing into the infrastructure of the future as a result of the increased development of massive information, novel technology, and data analytics. Infrastructure that uses cutting-edge technologies improves the quality of life. Given that roads often make up the bulk of a city's infrastructure and have degraded to the point where they no longer serve as an asset but rather a hindrance, we have developed a vision for intelligent highways(USDOT, ۲۰۱۴). This concept looks at smart road technology, which would change roadways by developing an automated system that changes lanes to accommodate any kind of traffic, whether it be from cars, bicycles, or pedestrians. We have set up and tested a network of surveillance cameras alongside the roads to register vehicles entering the access routes. Road surface sensors have been used for many years to assess vehicle speeds and produce warnings for approaching traffic congestion. Other routes are shown on the panels along the road. Along the highways, there is a massive electrical network of traffic signals. The interest in wired networks alongside the road has decreased as a result of the sharp increase in mobile phone use. Also, we look at the resurgence of wired networks and how they integrate with wireless networks.

کلمات کلیدی:
Smart Roads, Smart Cities, Road Sensors, Artificial Intelligence

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https://civilica.com/doc/1680463