

A Survey of Intelligent Transport Systems of Urban Traffic Management

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Abstract

Traffic has been a major problem for cities and various scientific methods are trying to provide scientific and cost-effective systems by controlling this problem. In this paper evaluation and comparison of the advantages and characteristics of these methods and their results have been done by reviewing the latest scientific achievements of intelligent transportation systems. The new methods of control and traffic Supervision in intelligent transport systems focus more on analyzing the topological conditions of traffic information, selecting the appropriate route and predicting traffic. Accuracy, responsiveness and the use of intelligent methods are difference from intelligent transportation systems methods for urban traffic management. Studies have shown that current methods have been able to reduce problems by identifying and collecting traffic information and achieving good results, but integrating existing methods in order to achieve a comprehensive real-time traffic control system is a major need in this area.

Key words: Intelligent System, Transportation, Management, Urban Traffic, Traffic Forecasting

1. Introduction

Transportation is one of the social needs of humans and has led humans to use the latest technologies because of the importance and disadvantaged role they play in societies. The most dramatic development of this era is the using of information technology and communication in transport and ultimately the realization of intelligent traffic management systems.

The nature of this industry has been transformed with intelligent systems. [1] the importance of smart systems are to predict urban traffic flow with the goals of reducing fuel consumption, reducing waiting times in traffic routes, increasing the level of comfort and satisfaction of the public, reducing the amount of air pollution and other important factors. This shows that prediction and control of urban traffic flow has many uses. Urban traffic control has been investigated and implemented in a variety of ways in countries and cities that many of them have used artificial intelligence algorithms.