INFORMATION TECHNOLOGY AND TRANSPORTATION SYSTEM

Amir Karimbakhsh¹
Kosro Ganizadegan²

¹² M.A student, Department of Management, Islamic Azad University, Rasht, Iran

ABSTRACT

Transportation and movement of goods is one of the most important human needs and special attention is placed on the planning of large countries. Nowadays information technology to solve transportation problems in society are considered experts in the field. Many cases such as environmental pollution and losses caused by the accidents of time an energy issues including such problems as traffic counts. Human development in the field of information and communication technologies and their application in the field of intelligent transportation systems transportation as the 1980 the country has been.

Key words: Transportation- Systems- Intelligent- Information- Technology- Application- Management

INTRODUCTION

TECHNOLOGY CONCEPT: regular use of scientific data other information the findings for academic tasks.(1)

Practical knowledge and tools to help working people.(4)

INFORMATION: each set of digital elements that have the letters or symbols should be clear and specific and can be processed at.(3)

THE CONCEPT OF INFORMATION TECHNOLOGY

A set of hardware and software and thought that software provides work flow and productivity of information.(2)

DEFINITION OF INTELLIGENT TRANSPORTATION SYSTEMS

Intelligent transportation using and applying information technology to improve the safety and efficiency of surface transportation is cheap for different methods of transport such as road railway and sea is extended. Optimal use of available resources to reduce injuries and increase safety and reduce adverse environmental impacts associated with a among the benefits of using intelligent transportation systems are.(9)
APPLICATION OF INTELLIGENT TRANSPORTATION SYSTEMS

These systems have different functions which can include:

- free way management
- transit management
- incident management
- emergency management
- electronic payment
- traveler information
- crash prevention and safety
- road weather management

BENEFITS OF INTELLIGENT TRANSPORTATION SYSTEMS

1- Reduce environmental pollution

Regardless of protecting and improving the environment is not sustainable mobility. Many cities employ intelligent transportation systems to reduce air pollution exacerbated in heavy traffic. So every part of intelligent transportation systems going to be effective in improving air pollution.

2- Increased safety

Intelligent transportation systems can reduce the severity of accidents and also the time required for service to be effective emergency rescue.

Some of these systems provide services are:

1- accident prevention systems
2- monitor weather conditions
3- automated traffic control
4- crossing speed and red light camera systems for road
5- rapid response in emergencies
6- systems to increase the visibility
7- incident detection systems alarm
MENTAL TRAFFIC

Intelligent transportation systems are looking to increase the efficiency of existing transportation systems (4).

Traffic demand management can improve the efficiency of the transportation network and public transportation to reduce the travel habits change.

Many intelligent transportation systems services is effective in reducing the density of such:

- speed control
- ramp control
- the event detection and control
- inform drivers
- before planning a trip
- information for travelers

The use of electronic payment systems

INCREASED USER SATISFACTION

Feel secure and reliable transportation network is very important for users. Services in this area include:

- The moment public transport information
- The use of smart cards
- vehicle tracking
- Tim traffic information
- dynamic route guidance

EXAMPLES OF THE APPLICATION OF INTELLIGENT TRANSPORTATION SYSTEMS

Notification systems and data to users

These systems can be installed in vehicles or systems are separate from. System from moving vehicles can be used for planning a head like the use of computer. So depending on traffic conditions and the use of information as may be fixed on the car dynamic systems is the best systems to use. Here are some of the methods mentioned.
TRAFFIC INFORMATION SYSTEMS ARE MOUNTED BY THE CAR

RADIO

One of the simplest types of traffic information system that is used in all types of cars includes radio. Radio plays two roles:

1-special channel for traffic information radio channels are defined and only provide information about the traffic at the moment.

2—when one or more radio stations to play at the required reports on traffic issues.

DIGITAL AUDIO PLAYER

These systems can transmit text data and speed does.

TRAFFIC MESSAGE CHANNEL

The specific application of data transfer using radio waves. Moment to spread news and information about weather traffic and is used. The system uses radio frequency broadcast.

The massages can included:

- details climatic or traffic problems and the seriousness of its

- event location or area affected.

- the extent of the area affected and the related motor

Prolonging the duration of the problem

- recommendations on altering or replacing.

INTERNET

Internet is a popular solution can be use full in providing information on traffic.(7)

User access to information like this is a good website that has information in it will select. Origin and destination and then enter your desired database and the database will have at his disposal all the information about the track.
MOBILE SYSTEMS

Mobile devices to access the traffic information and other required driver provides.\(10\)

DATA PROVIDED BY VARIABLE MESSAGE BOARDS

These signs are that are placed on the outside of the car and on the road. Traffic information and other information required by the driver of the panel is used mainly. Digital paintings by hand and used mechanical and electrical. Its feature events such as accident of traffic signs-repair and maintenance operation road conditions are unsuitable climate.

APPLICATION OF INTELLIGENT TRANSPORTATION SYSTEMS AND PARKING MANAGEMENT

One of the thing that caused the traffic especially near cities and business centers and is filled parking travel is. If an information system to be installed will be effective parking\((8)\).

Now days information systems are important for garages especially important issue for city officials. An efficient parking system causing pollution within the city reduced.\(10\)

PARKING MANAGEMENT SYSTEM HAS THE FOLLOWING APPLICATIONS:

Provide information to motorists about proper places and empty car park.
- enables centralized control and monitoring of vehicles.
- automatically change rates
- possible stats

Radio and mobile systems or website can provide information to drivers\(10\)

SUPPLIES FINDERS

This system is used to determine the location and other services. Systems for navigation and route guide and tourist information travels and announces the emergency and breakdown used.

For all these services vehicles require accurate and dynamic information about the location of a moving car.

If the position in correct the system capable of being over shadowed . this is especially important in an emergency because it may be a matter of life and among.

APPLICATION OF INTELLIGENT TRANSPORTATION SYSTEM SAFETY

Safety is one the most important aspects to consider in the production and transportation systems and services which is currently expanding\(7\).
Safety systems are divided into two categories:

Effective

Inactive

Effective:
Plays an active role in guidance by providing necessary information to take control of part of car.

Inactive:
This system greatly reduces unavoidable accident injuries. Such as airbags and safety belts.

PROVIDED BELOW ARE SOME SAFETY PROCEDURES:

Intelligent transport system road work like intelligent signs radars to determine quickly by the infrared system with variable message signs used. (6)

E - DECLARER STATE OF EMERGENCY

One of the important advances that have been achieved in the implementation of secure electronic notice for cars is a joint initiative of the euro paean.

This approach to ensure the availability and proper functioning of the emergency notification systems within each vehicle anywhere in Europe is designed.

In this way the information is sent to the system prompt emergency services for automotive electronics and adding data such as information about the owner of the vehicle and track share and activate the alarm and vehicle status information etc will be strengthened. (8)

ADVANCED DRIVER ASSISTANT SYSTEMS

1-drivers ability to steer the vehicle which increases systems like and lock and friction control, etc.

2-systems that interact with the environment and other vehicle such as cars improve emergency brake systems.

DRIVER PERFORMANCE MONITORING SYSTEM

The driving behavior of the driver when the system goes to warn of deteriorating such:

Consciousness such as drowsiness and drivers.

PRESSURE CONTROL SYSTEM

Sensory receptors in that camera and automatic pressure control driver, for example there may be a need to focus the busy radio will automatically be turned off.
STRENGTH THE VISIBILITY

To solve the problems arising from a protect perspective view of a driver support systems is running. The driver with greater vigilance to detect objects ahead on the path to better and faster results show reaction. (8)

TO ELIMINATE THE USE OF MOBILE HAND HELD SYSTEMS

A new method in which drivers can specific instructions to advice with a touch screen and alphabet with a touch screen with your desired number and call or see your rote on screen. (5)

WARNING SYSTEMS AND DISASTER PREVENTION

precautions on pages close to the show. (8)

CONCLUSION

Transportation is very important in the world of information technology. It really has changed the world of technology and transportation problems related to it will be possible. This system would be cost saving energy and consummation reduction.

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