Intelligent Transportation Systems

Intelligent Transportation Systems (ITS) are the application of electronic technologies and communications to improve the operation of roadway and transit systems. Some examples of ITS are provided below.

Traffic Management Centers

State and municipal traffic management centers (TMCs) provide agencies the ability to operate their ITS equipment including closed circuit television cameras, dynamic message signs, and traffic signal systems. During incidents traffic information and video feeds can be shared with public safety agencies to improve incident management capabilities.

Dynamic Message Signs

Posted traveler information messages provide motorists with details about incidents, construction, special events, and evacuations.

Closed Circuit Television Cameras

Transportation system operators use video monitoring to detect and verify incidents, monitor congestion, and check road conditions in inclement weather. Video images from incidents can be shared with public safety dispatchers as well as emergency management centers.

Flood Detection Systems

Flood detection equipment detects and notifies transportation and public safety officials of flooded roadways. In areas prone to flooding, closure equipment prevents cars from driving into flooded roadways.

Work Zone and Special Event Management

Portable dynamic message signs and closed circuit television cameras facilitate the implementation of detours and lane closures for work zones and special events.

Emergency Management

Traffic signal preemption improves emergency vehicle response times and safety. Sharing of traffic camera images provides public safety dispatchers the ability to verify incidents and determine the appropriate types of response units to dispatch.

Traffic Signal Systems

Traffic signal systems provide transportation system operators the ability to monitor and change signal timing plans from a traffic management center and facilitate signal system synchronization.

Transit Management

Automated vehicle location systems integrated with computer aided dispatch systems facilitate transit management. Transit security technologies, trip routing, and reservation systems provide added safety and convenience for transit patrons.

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