



Intelligent Transportation Systems (ITS) Fact Sheet

ITS improves transportation safety and mobility and enhances productivity through the use of advanced communications technologies.



Arterial Management



Electronic Payment Systems



Incident Management Systems



Commercial Vehicle Operations



Emergency Management Systems



Freeway Management Systems



Information Management



Intermodal Freight



Transit Management Systems



Road Weather Management



Traveler Information



Roadway Operations & Maintenance



Collision Avoidance Systems



Collision Notification Systems



Driver Assistance Systems

Intelligent transportation systems (ITS) encompass a broad range of wireless and wired communications-based information and electronics technologies. When integrated into the transportation system's infrastructure, and in vehicles themselves, these technologies relieve congestion, improve safety and enhance productivity. ITS is made up of 16 types of technology based systems. These systems are divided into intelligent infrastructure systems and intelligent vehicle systems.

ITS comprise technologies that can be used for hundreds of different applications. Planners envision ITS as a means to tackle both recurring and non-recurring problems on roads. ITS programs can be found in all 50 states, the District of Columbia and Puerto Rico. It has been used in urban and rural communities, on interstate highways and small city streets, in transit centers and rail stations, at ports, and in trucks and cars. ITS can be used for diverse needs, ranging from controlling the flow of traffic, detecting emergencies on highways, and warning drivers of impending danger, to improving freight security, routing on-demand travel services and efficiently checking registration documents for commercial vehicles. ITS technologies range in size and scope from a single ramp meter, dynamic message sign or transponder to an entire traffic management center or networks of computers and software.

Related Websites

US Dept. of Transportation - <http://www.its.dot.gov>

Federal Highway Admin. - <http://ops.fhwa.dot.gov>

ITS Society of Virginia - <http://www.itsva.org/>



Virginia Intelligent Transportation Systems (ITS) Programs

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511 Virginia - 511 Virginia is a free phone and web service that provides up-to-the-minute information on traffic conditions, incidents and driving times, and schedule, route and fare information for public transportation services. It's available 24 hours a day, 7 days a week. www.511virginia.org



SmartTag/E-ZPass - Smart Tag and E-ZPass are automatic, electronic toll collection systems that have joined forces to quickly and efficiently move traffic through toll facilities in Virginia and along much of the East Coast. A motorist with a Smart Tag/E-ZPass transponder mounted on the inside of the windshield or on the license plate, can travel through Smart Tag/E-ZPass toll lanes and the toll is automatically deducted from a pre-paid account. www.smart-tag.com



Smart Traffic Centers - Smart Traffic Centers work with VDOT offices, state police, and the Transportation Emergency Operations Center to keep VDOT and the public informed of traffic incidents as they happen. The centers use radio, the internet, and variable message signs to provide real-time information to Virginia's motorists and to detour traffic. A Smart Traffic Center for the Salem VDOT District is currently under construction. www.virginiadot.org/infoservice/smart-default.asp



The Smart Road - The Smart Road in southwest Virginia is a unique, state-of-the-art, full-scale research facility for pavement research and evaluation of Intelligent Transportation Systems (ITS) concepts, technologies, and products. It is currently a 2.2 mile two-lane road and includes a 2,000 foot bridge, which is one of the highest in Virginia standing at 170 feet. When the entire 5.7 mile project is completed, the Smart Road will be a four-lane, limited access highway between Blacksburg and Interstate 81. www.vtti.vt.edu



Smart Travel Lab - The Smart Travel Lab is a state-of-the-art facility that supports research and education in the rapidly emerging area of intelligent transportation systems (ITS). Using the latest information technologies and analysis and modeling techniques, researchers in the lab are developing prototype systems and applications that promise to improve the effectiveness of ITS. www.cts.virginia.edu



Telework!Va - The Telework!Va Program provides incentives for Virginia businesses to establish or expand telework programs for employees. Teleworking is a work arrangement where managers/supervisors direct or permit employees to perform their usual job duties away from their central workplace. The program goal is to provide more opportunity for participation in teleworking. www.teleworkva.org