

The Vehicle Infrastructure Integration Showcase Comes to Michigan

The Vehicle Infrastructure Integration Showcase was in Michigan for the Convergence Conference in Detroit October 17-18 and Grand Rapids at Fifth Third Ball Park on October 19. The Intelligent Transportation Society of Michigan promotes the use of computer and communication technology to make travel safer and more efficient in Michigan.

In Detroit and Grand Rapids we showed some tangible examples of the application of that technology. The Showcase demonstrates how computer and communication technology enable motor vehicles and the roads they travel to talk to each other. The exchange of information can help reduce traffic crashes and highway fatalities.

The innovative Mobility Showcase provides a series of Vehicle Infrastructure Integration (VII) demonstrations during the road show celebrating the 50th anniversary of the opening of the first Interstate highway in the United States. These demonstrations highlight the capabilities of technologies that support traffic safety and traveler information, including wireless communications and intelligent processing installed in vehicles and roadside equipment.

The technologies demonstrated were:

- Traffic Signal Violation Warning
- Public Safety Vehicle Priority Activation
- In Vehicle Signing

Traffic Signal Violation Warning. An “intelligent intersection” distributes instantaneous traffic signal information to nearby vehicles. The vehicle uses this data and vehicle position and speed to determine the risk of an unsafe passage through the intersection, and produces advisories when needed, cueing the driver to corrective actions and reducing the risk of intersection collisions.

Public Safety Vehicle Priority Signal Activation. A Public Safety vehicle issues a request to the intersection for signal priority. The traffic signal state is changed if appropriate, allowing the vehicle fast, safe passage through the intersection.

In Vehicle Signing. Dynamic road condition data is received from roadside equipment. Audible driver advisories are presented to the driver as the vehicle approaches an active work zone, avoiding a potentially dangerous situation.

As the home of the automotive industry, Michigan has some natural advantages in providing a test bed for these technologies. Computers have been in automobiles for many years, and now we can demonstrate how to use those computers to enhance traffic

safety. Michigan State government has made a commitment to make Michigan the leader in deploying intelligent transportation systems and vehicle infrastructure integration. In fact, Michigan has been selected as the site for the proof of the concept.

The VII Showcase allowed us to demonstrate some of these technologies for transportation professionals, the media, and the public.