ITS Lab at Portland State University

INTELLIGENT TRANSPORTATION SYSTEMS IN THE PORTLAND METROPOLITAN REGION

Researchers use data from transportation technology to help agencies refine policies and improve programs.

BENEFITS

Mobility: Lab work helps transportation planners make better–informed operational and investment decisions.

Safety: ITS lab works with local agencies to promote community traffic safety.

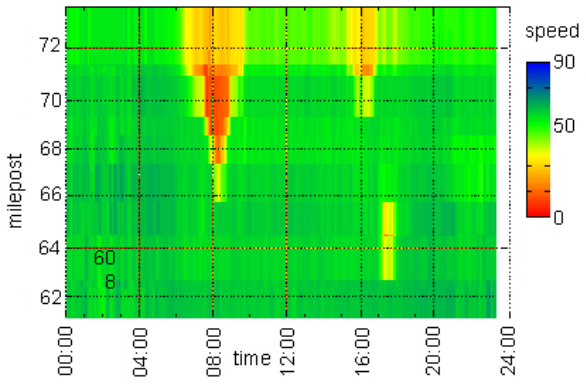
Cost effectiveness: Federal funding matches local investments in ITS research.

Just as bus schedules undergo periodic revisions, intelligent transportation systems often require active management. Ramp meters and traffic signals, for example, need to be monitored and evaluated to determine if they are functioning properly and having the desired effect on traffic. Transportation agencies, however, are generally stretched thin and resources for measuring effectiveness are limited.

The ITS lab is located in PSU's new state-of-the-art engineering building.

The creation of an ITS laboratory at Portland State University has emerged as part of the response to this challenge. Transportation agencies have data but no time to analyze them while the University has a laboratory with researchers in search of real-world situations to study. The arrangement benefits from the willingness of transportation agencies in the region to collect and share data with each other and with the university. ODOT's highway traffic sensors, TriMet's GPS-equipped buses and even the airport's parking garages feed this information-sharing system. In sum, this enables the ITS lab to support the creation and refinement of system management strategies throughout the region.

In addition, the ITS lab is an important part of the region's efforts to develop a stronger relationship between real-time operations and strategic planning. The lab maintains the Portland Oregon Regional Transportation Archive Listing (PORTAL), which stores vast amounts of data from ITS devices such as ODOT's in-road traffic sensors. By giving transportation planners a substantially more precise understanding of transportation activity. This operational data enables better decision making for future capital investments.



The ITS Lab's diagnostic tools include graphics like the one above, which shows traffic speeds on US26 eastbound. Congestion at the Sunset Tunnel in the morning appears as a red V-shape.

For more information, visit
www.metro-region.org

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