

2002 MTC Projects

Two new projects were awarded by the MTC for 2002, and both deal with data.

One project, led by Shauna Hallmark, associate professor in civil engineering at Iowa State University, will evaluate whether current sampling techniques are statistically representative of roadway attributes. Truck volumes and loading are key factors in predicting

pavement damage and, subsequently, pavement performance. One of the most common methods to predict traffic patterns and vehicle miles traveled is the use of traffic counts. Frequently, due to resource constraints, only samples of road segments are monitored continuously during the year to produce annual traffic characteristics. More intensive data collection usually occurs only at the corridor level as needed. While sampling may provide adequate information for some uses, it may not provide statistically significant

results for others.

For the second project, Omar Smadi, pavement management specialist at the Center for Transportation Research and Education, is working with the Iowa Department of Transportation (Iowa DOT) to develop, implement, and operate an integrated bridge asset management system. The system will enable the Iowa DOT to make objective, cost effective, and timely decisions regarding bridge maintenance, rehabilitation, and replacement programs. The project will include

- the collection and integration of bridge structural performance data using strain gauges and basic data acquisition devices
 - the development of a computerized system to capture bridge visual inspection data
 - the use of PONTIS bridge management software to integrate the data for the purpose of developing an integrated bridge asset management program
- To read about all MTC projects, see www.ctre.iastate.edu/mtc/.

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