



ALISON YIN/STAFF

**ALEXANDRE BAYEN**, UC Berkeley assistant professor of civil and environmental engineering, announces a partnership between the U.S. Department of Transportation and Caltrans to launch new technology they say will provide instant travel information to help reduce traffic congestion in the Bay Area.

# TRAFFIC STUDY GOES HIGH-TECH

■ Sophisticated reporting network would use cell phones and GPS to relay information to drivers about commute routes

By Erik N. Nelson  
STAFF WRITER

In what is billed as the largest such experiment in the world, a consortium of academics, tech firms and government agencies will use upward of 1,000 drivers from the Bay Area to the Sierras to create a traffic monitoring system virtually overnight.

And all the drivers have to do is bring along new mobile phones as they cruise around

for several months expected to begin in September or October.

The phones use global-positioning features to transmit each vehicle's location and speed, and then receive organized data telling drivers of upcoming bottlenecks and alternate routes and even alternatives to driving where available.

The \$12.4 million test, expected to happen this summer, was announced Wednesday at the Bay Bridge Toll Plaza with the help of Paul Brubaker, administrator of the U.S. Department of Transportation's Research and Innovative Technology Administration.

The administration's new

SafeTrip-21 initiative will kick in \$2.9 million to the test as its first grant in the nation.

The test also will check the effectiveness of a collision-avoidance system that uses Wi-Fi technology to help cars sense the proximity of other vehicles.

The test will be a larger version of a successful Feb. 8 experiment involving 100 rental cars driven by University of California students on I-880 between Hayward and Fremont.

Brubaker said the resulting system, set up with commercially available technology, would provide motorists with a much more sophisticated traffic reporting network than

even the 5-1-1 system run in the Bay Area.

And while the phone and Web-based 5-1-1 system — considered one of the nation's best — relies on costly road sensors and readers to track electronic FasTrak toll tags, this next generation being tested requires only that motorists carry cell phones with global positioning technology.

Brubaker said the system would provide not only alternate driving routes, but transit routes as well.

"It will know if the buses are running late and what the bus schedule is that day," he said. "That's something 5-1-1 doesn't do."

And Caltrans' Sean Noz-

zari, deputy director of traffic operations, said it will monitor traffic that currently has no sensors or FasTrak readers, such as routes to other cities.

"Another addition is that it will expand onto local roads," Nozzari said.

The partners conducting the test include UC Berkeley's two transportation technology groups, Partners for Advanced Transit and Highways and the California Center for Innovative Transportation, mobile phone maker Nokia, mapmaker NAVTEQ and car-maker Nissan as well as the Metropolitan Transportation Commission and Santa Clara Valley Transportation Authority.