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NEWS

System tracks campus shuttles

by Tyler Stewart
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A new GPS technology being developed by the minds at CAVS, the Center for Advanced Vehicular Systems, is being tested on MSU's shuttle buses. A server has been set up for students to locate the position of the shuttles and their estimated arrival time for stops online.

On the "BullyBus" Web site, users can see the shuttle buses moving in real time. Users can also select a stop, which will give the estimated time of arrival for buses stopping there.

The project is a collaboration between professors Georgios Lazarou and Joseph Picone, graduate student Will Jenkins and CAVS research associates Zack Rowland and Ron Lewis.

"[The system is] all wireless," Harris said. "Eventually, you will be able to see it on your cell phone, but right now it's all on a trial basis."

The GPS systems will be on all buses soon, including the night route shuttles, Harris said.

Lewis said the system works much like an airplane's "little black box." A GPS unit is installed on each shuttle bus. Each unit is connected to a small computer containing the software developed by CAVS, which relays GPS data to a server. The server relays the data to an online application or "applet," which everyone can observe.

Since the project commenced last June, six units have been developed, three of which are already installed on shuttles.

Mike Harris, transportation coordinator for MSU, explained how CAVS and the transportation department began working together.

"The people over at CAVS told us they were working on a new technology and were looking for some guinea pigs, and they asked us if we would be interested in using our shuttle system," Harris said. "We said, 'Sure, anyway we can support the university.'"

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"CAVS has used us to see if [the system] works, and they've been working out the kinks, getting all the software to work properly," he added.

Since CAVS approached the transportation department last semester, they have been working closely together.

"We've been taking our buses over to put the system on them," Harris said. "Currently, it's on three shuttles, and it's going to be put on a fourth next week."

"Right now it's basically a test, and hopefully if it works well, the university will buy in and put them on the rest of the buses," Lewis said.

Lewis's hope may become reality since new parking and road plans are being set for next fall.

"The system is still new, but eventually GPS will be on all of the buses," Harris said. "It's a very convenient thing for our people who have to wait for a bus."

Harris said the shuttles will need to be used more often with new parking policies taking effect.

"I think they're certainly going to be used once we get our loop road developed," he said. "The GPS is really going to help."

Though CAVS has started their research with the system on campus, their federal research is expected to surpass Mississippi State.

"I think the university and CAVS are on the cutting edge of technology," said Paul Welch, Support Services director. "It probably won't be too long until there will be a black box on most automobiles. I don't see this too far into the future".

"Technology doesn't back up; it always marches forward, and I think [GPS] will be a standard," Welch said. "We'll have to wait and see, but it's been successful so far."

Currently, the GPS applet is available online at http://bullybus.msstate.edu/, and a cell phone feature is in the works.

"The system for cell phones doesn't work yet, but we're in the process of working on that," Lewis said. "It's another type of language we'll have to write, plus the computer software isn't feasible for cell phones because the download size is so large."

Lewis said the cell phone software will be text based, showing an estimate of stop times. Depending on how technology advances, the computer software could be feasible for cell phones in the future, he added.

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