

### Breaking points

Here are ideas for enjoying spring break in Tulsa.

Satellite D-1

### OU advances

The Sooners power past Niagara in the first round of the NCAA Tournament.

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### Heads or tailgates

There's no end in sight for Rhett Akins and the Honky Tonk Tailgate Party.

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### Wireless wizards

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OU researchers help NASA develop a seamless mobile Internet connection.

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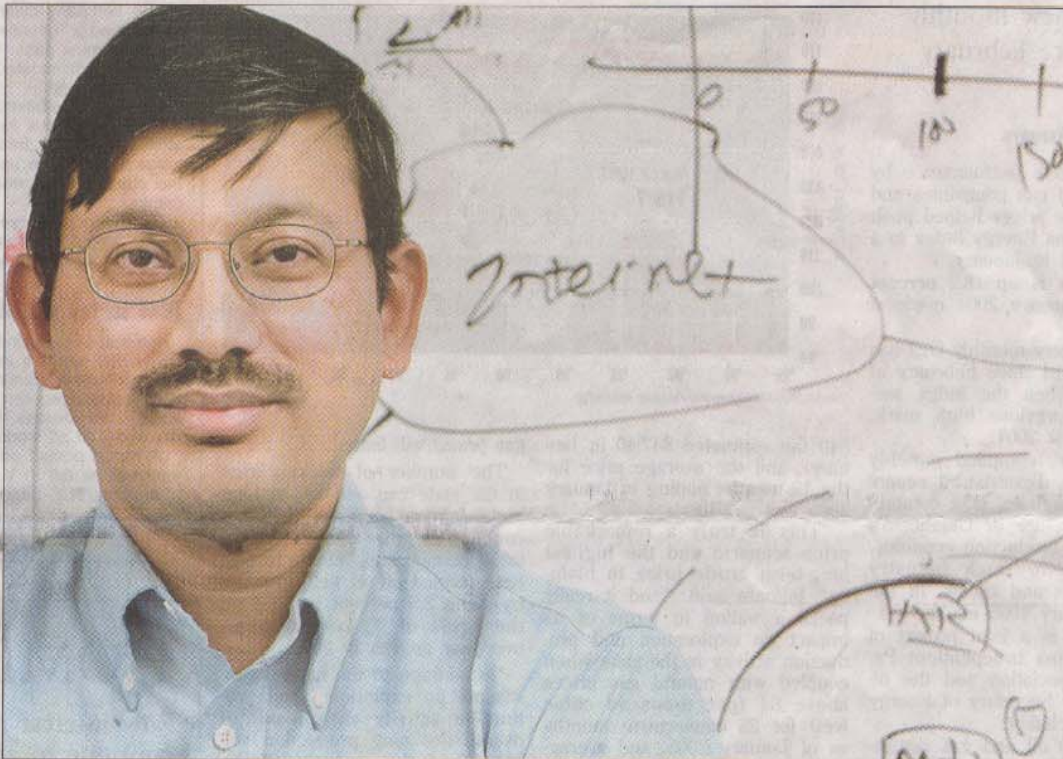
# TULSA WORLD

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## Wireless wizards



KELLY KERR/Tulsa World

Mohammed Atiquzzaman, a University of Oklahoma computer science professor, is heading a NASA-funded project that could result in being able to connect to wireless Internet from any location.

## OU team aids NASA on seamless signals

By ANGEL RIGGS  
World Staff Writer

NORMAN — A University of Oklahoma professor and three students are working on a NASA-funded research project that would provide a seamless connection for wireless Internet — whether in space or in your car.

While NASA will use the research to improve connections with satellites, it also wants the work to apply to the general public, said Mohammed Atiquzzaman, the OU computer science professor leading the project.

Called seamless hand-off for data networks, the research should pro-

vide a new technology to keep satellites in contact with stations on Earth — without disconnecting and then reconnecting as they orbit, Atiquzzaman said.

The same technology, he said, could also allow laptop users to use wireless Internet almost anywhere — even while in a car.

Wireless Internet can now be accessed directly through a laptop only in a specific area, much like a cordless phone can only be used within a certain range of a home or office. The OU group is researching how wireless Internet could be made to work outside of that range.

It's like comparing a cell phone

to a cordless phone. Mobile phones can be used while driving because cell towers seamlessly hand off the signal — the person talking doesn't even realize it.

Atiquzzaman and the students are trying to develop a technology that would allow wireless Internet to do the same thing — transfer signals between towers without disconnecting.

The wireless connection would be transmitted using the same access points that already provide Internet browsing on cell phones, he said.

For now, the students have set

SEE OU E-2

# OU:

The research team is about halfway through the project.

FROM E-1

up their own access points in the school's engineering lab. They experiment by carrying their laptops from one point to another in the lab, trying to link the connections.

The team includes graduate computer science students Suren Sivaguranathan, 23, and Abu Ah-

med Sayeem Reaz, 24, plus Shaojian Fu, 29, who's working on a doctorate in the field.

They're about halfway through the research project, the professor said. However, it could be a long time before the technology is on the market, provided that the team succeeds in its development.

"We're only developing a prototype, so some company would have to develop a product," Atiquzzaman said.

The work began when the professor answered NASA's RFP, or request for proposals, he said. Out of 200 grant requests, he said, only 21 were funded — four of them from universities.

Atiquzzaman declined to say how much money NASA is providing for the three-year project set to end in July 2006. However, he said the figure is in the \$100,000s.

"Think of how cool it is," Reaz said of the work, noting that the technology could be used in a vehicle instead of using a CD or DVD player.

Someone traveling on a bus, for example, could watch a live football game on a laptop, he said.

"As long as the connection is seamless."

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