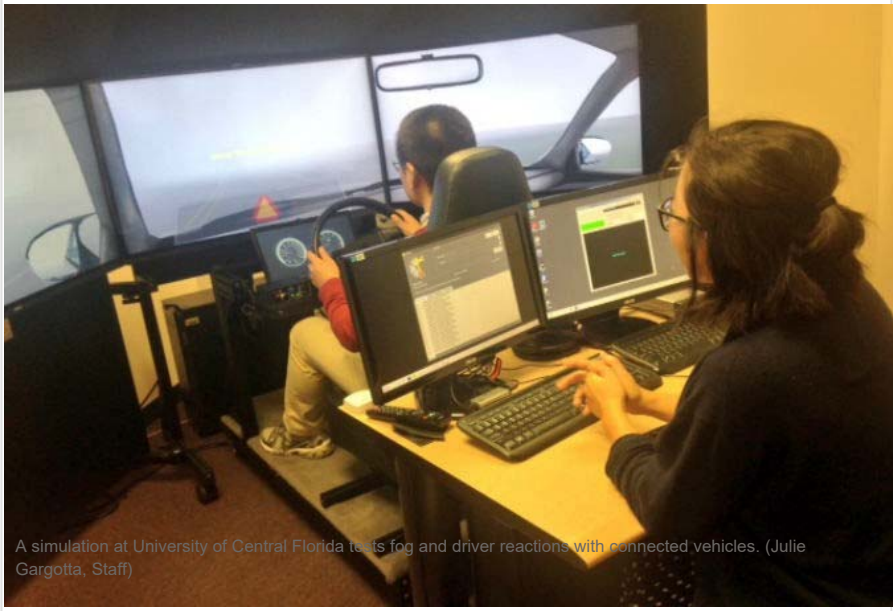
Central Florida partnership will simulate, test connected vehicles



A simulation at University of Central Florida tests fog and driver reactions with connected vehicles. (Julie Gargotta, Staff)

By Julie Gargotta, Reporter
Last Updated: Monday, January 30, 2017, 10:38 PM EST

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ORLANDO -- An ambitious project spearheaded by several area organizations may shape the future of how Florida -- and the world -- moves.

- **Central Florida Automated Vehicle Partnership to simulate, test, deploy connected vehicles**
- **9 state, local agencies, universities involved in this partnership**
- **Connected vehicles are not driver-less**

“We have a vision that takes us all the way from soup to nuts," said Jeremy Dilmore with the Florida Department of Transportation. “Fundamentally, what this has the potential to do is really improve the safety of our transportation network.”

The Central Florida Automated Vehicle Partnership aims to simulate, test and eventually deploy connected vehicles.

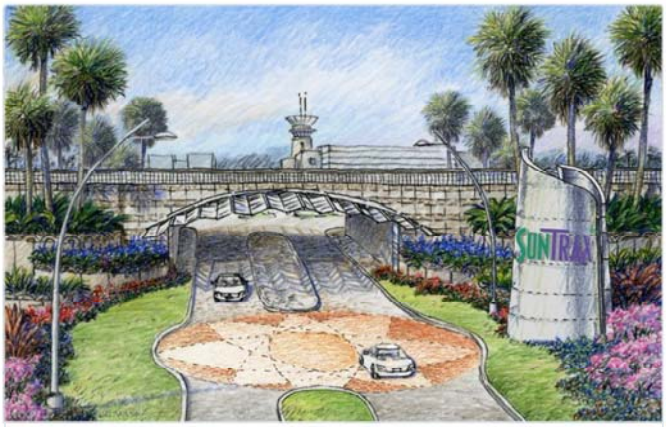
The partnership is comprised of the city of Orlando, University of Central Florida, Florida Polytechnic University, FAMU-FSU Engineering, NASA and Kennedy Space Center, LYNX, FDOT Districts 1 and 5, Central Florida Expressway Authority and Florida's Turnpike Enterprise.

“They’re all great folks. Very, very smart people," said Charles Ramdatt, Director of Special Projects for the city of Orlando. “What better place to showcase these technologies?”

After losing a U.S. Dept. Of Transportation Smart Cities Challenge to Columbus, Ohio last year, Ramdatt said that the city was motivated to continue their efforts, working with public and private sector partners.

In December, they submitted a new proposal to the Department of Transportation, pitching Central Florida as a proving ground for automated vehicles. One month later, they were awarded one of 10 national designations.

“To be designated was a wonderful, pleasant surprise. But, I was not that confident, to be honest with you," said Dr. Mohamed Abdel-Aty, referring to the intense competition. “The goal is to work together for a better Central Florida. There are a lot of technologies we will test in the lab before we go out and implement.”



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According to proposal by @citybeautiful, @UCF, @FLPolyU & others, construction starts in spring on 2+ mi connected #car test track, SunTrax.

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The UCF Pegasus Professor and Engineering Department Chair will lead a team of researchers, developing connected vehicle technologies in their lab using simulations.

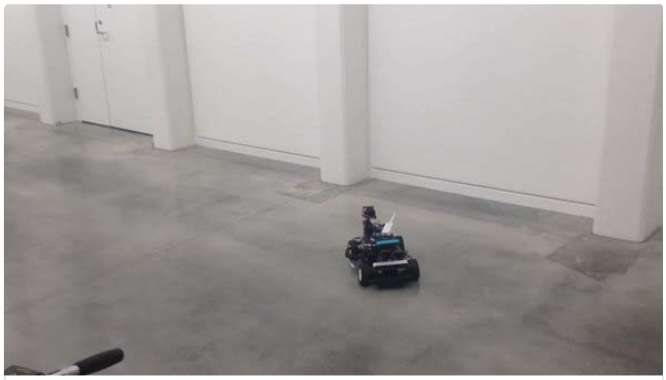
“Two cars approaching an intersection can talk to each other and warn each other," he explained, differentiating between "connected" vehicles and "driver-less" cars.

“Connected cars are cars talking to each other and talking to the infrastructure.”

Some automation -- from adaptive cruise control to self parking -- is already in use, he explained, while cars that are driver-less, the utmost level of automation, may be a by-product of the group's work.

UCF’s strength in simulation will be coupled with that of Florida Polytechnic, a new state university in Lakeland.

“It’s right up our alley," said Dr. Randy Avent, president of the university. “We have six majors, most of them centered around computing and technology type things and math. A big piece of the university is that we’re a projected-based curriculum, very hands-on.”



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#Students in class @FLPolyU modify race cars to be autonomous. Though on SMALL scale, this mirrors project university & others will tackle.

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With the help of the Turnpike, Florida Poly will be building a controlled testing facility in Polk County, on the site of a former 400-acre farm; It's a place where dried-up blueberry shrubs and citrus trees dot the land.

SunTrax will include a 2.25-mile, oval track, used for testing intelligent tolling. Inside the track, infield, the university will construct a simulated downtown core. According to the proposal, construction starts in the spring on the facility, while testing will begin in fall 2018.

While FAMU-FSU will furnish additional research and FDOT will provide technical engineering support for the project, NASA will provide a second controlled testing facility at Kennedy Space Center on an array of private roads. In coming years, the cars will hit read roadways, like I-4 and toll roads.

“It’s predicted by many to be an $80 billion dollar industry, which means there’s a lot of jobs that could come out of this," said Avent. “We have seven or eight faculty right now beginning to start thinking about what types of research they can do and what types of technologies they can develop.”

“I think the sky is the limit for what we can dream or wish for. But the real hard work starts now," said Abdel-Aty. “This will open the door to a lot of work, high-level work. Then for a future where we are in the center of applying this new technology, which is the future."

According to the city, the U.S. DOT designation as a proving ground does not come with funding, but the group will be working to solicit additional partners, from car to technology companies.

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