



[LEARN HOW >](#)

APC

CDW PEOPLE WHO GET IT



HOME >> MANAGEMENT

MAY 08 2018 **MANAGEMENT**

The University of Virginia's Link Lab Forges New Smart City Pathways

Autonomous systems, cognitive healthcare and smart utilities monitoring are all on the roster for the UVA's new smart city lab.

by [Erin Brereton](#)

Erin Brereton has written about technology, business and other topics for more than 50 magazines, newspapers and online publications.

In Virginia, smart city tech and driverless car research are getting a boost from higher education investment.

In February, the [University of Virginia School of Engineering](#) debuted its interdisciplinary [Link Lab](#), a 17,000-square-foot space where researchers are developing innovative, dynamic systems that connect the cyber and physical worlds.

By design, the \$4.8 million lab seeks to unite team members from diverse disciplines and expertise in a variety of technologies. That's important given the wide range of projects the Link Lab tackles, including [smart cities](#), [autonomous vehicles](#) and [technology-driven healthcare](#).

Director Jack Stankovic, for example, is a computer science professor whose research interests center on real-time systems, wireless sensor networks, wireless health, cyber-physical systems and the Internet of Things. Associate Director Jonathan Goodall, affiliated with the departments of computer science and of civil and environmental engineering, specializes in hydrology, water resources engineering and hydroinformatics.

SIGN UP: Get more news from the [StateTech](#) newsletter in your inbox every two weeks!

Interdisciplinary Experts Develop Well-Rounded Solutions

Organizers sought to bring together professionals and students whose wide-ranging backgrounds would bring broad support to the lab's research efforts, Craig Benson, dean of the engineering school, said [in an interview with UVA Today](#).

"We've got this unique ecosystem with a strong medical school, a strong hospital and strong schools of engineering ... all within walking distance of each other," Benson said. "We've got experts in algorithms, sensors, computations, systems and applications, and the nexus is an advantage for UVA ... the Link Lab is all about creating an environment where scholars and students can work together on real-world problems."



So far, researchers have created a communication system for connected autonomous vehicles and a model to show how sensors and wearable monitors could improve home care for patients with conditions such as dementia and diabetes.

Other projects in the Link Lab include:

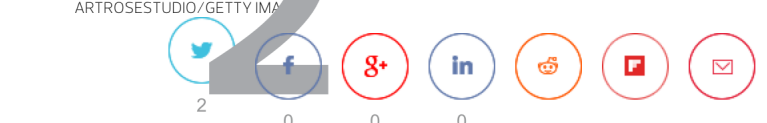
- Creating interfaces between driverless cars and their passengers that would keep the latter informed about the cars' actions (and therefore feeling safer on the road)
- Using cyber-physical systems to understand, analyze and manage natural and built water systems to address resource challenges
- Using information about building occupants' locations and activities to more strategically employ heating and cooling and provide feedback about water and electricity usage

Training the Next Generation of Smart City Experts

Of note, each of these endeavors has the potential to deliver practical results. In the project on utility usage, for example, early results indicate that just \$25 worth of sensors could reduce heating, ventilation and air conditioning consumption by 28 percent, according to [University of Virginia assistant professor Kamin Whitehouse](#).

For students, one big benefit of working in the Link Lab is the chance to gain hands-on experience using principles they learn in cyber-physical system courses. This opportunity also seeks to offer the state highly trained talent in the smart city sector.

"Everything in our future is going to be connected through the internet -- everything in the world in which we work and spend our lives," said Benson [in a press release](#). "Cyber-physical systems form the link between computers, data, decision-making and the physical world, and cyber-physical systems let us do things in a much faster, more efficient and effective way. Our Link Lab is an environment where scholars and students can work together on developing cyber-physical systems that will solve real-world problems and make the world a better place."



Get More Insights Delivered Right to Your Inbox. [Sign Up Now >>](#)

More On **INNOVATION** **TEAM COLLABORATION** **INTERNET OF THINGS**

Related Articles

<p>Management</p> <p>3 Emerging Technologies Libraries Shouldn't Ignore</p>	<p>Management</p> <p>Louisville Makes Innovative Government a Reality Through Communication, Collaboration</p>	<p>Management</p> <p>5 Human-Centric Tips to Make Government IT Projects a Success</p>
--	---	---

Latest Articles

	5 Best Practices for Agencies to Implement Network Access Control
	Collaboration Tool Analytics Transform State and Local Agencies
	Cybersecurity Today: How Governments Must Rethink Strategy to Thrive
	West Virginia Pilots First Blockchain-Powered Federal Voting App



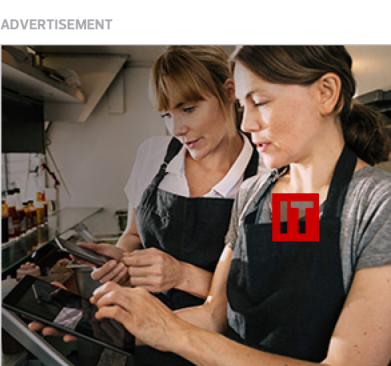
NETWORKING

Risk vs. Reward with Internet of Things Deployments



DATA CENTER

Disaster-Ready State and City IT Systems Weather the Storm



ADVERTISEMENT

Trending Now

	Cities And Counties Turn To Machine Learning To Bolster Cybersecurity
	Cities Could Make Desktop Phones A Thing Of The Past
	Smart Cities 3.0: 5G, Edge Computing And Citizen Engagement
	West Virginia Pilots First Blockchain-Powered Federal Voting App

DOWNLOAD THE CDW DIGITAL APP NOW! [>](#)

available now:

StateTech

Technology Solutions That Drive Government

[About Us](#) [Contact Us](#) [Privacy](#) [Terms & Conditions](#) [Site Map](#)

STATETECH: [CDW](#):

EXPERTS WHO GET IT

A Look Inside CDW Data Centers

[Read the Blog >](#)

Get StateTech in your Inbox

[Browse Email Archives](#)

Subscribe to StateTech Magazine

[Browse Magazine Archives](#)

VISIT SOME OF OUR OTHER TECHNOLOGY WEBSITES:

BizTech **EdTech** **FedTech** **HealthTech**

[BACK TO TOP](#)