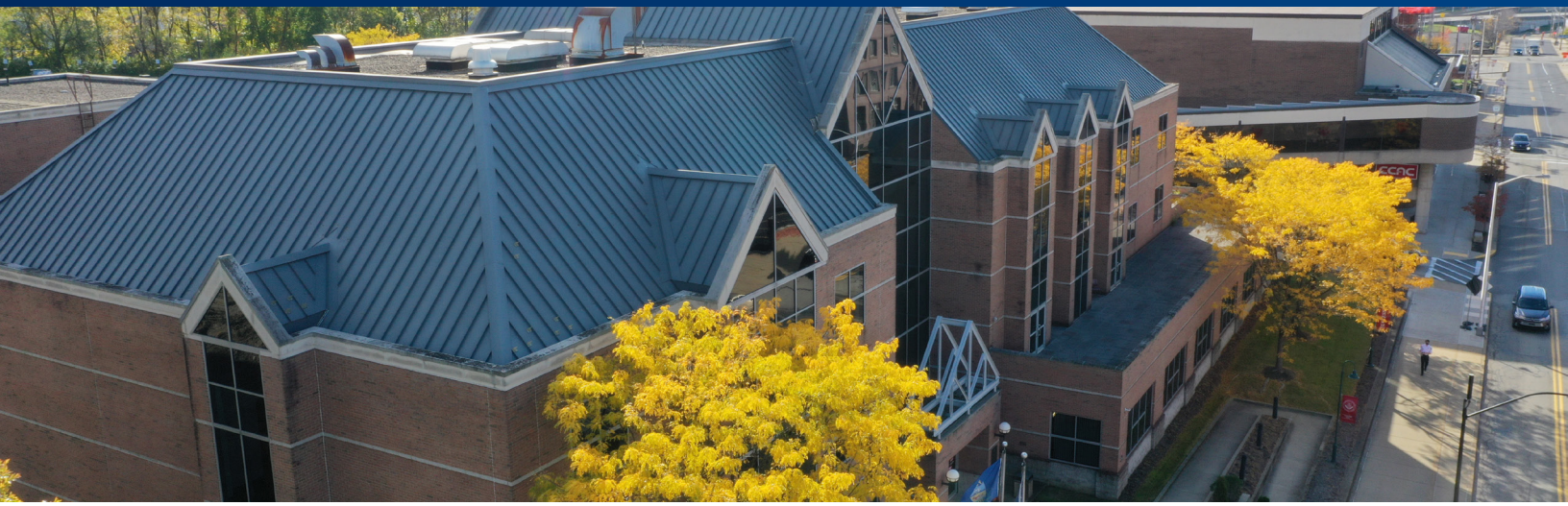
Case study

Community College of Allegheny County

Johnson Controls and CCAC deliver a smart campus connected by 17,400 new points of control



The modern college campus is healthy, sustainable and digitally connected. Every individual, from students and faculty to administrators and visitors, should enjoy an optimized experience from the moment they walk on campus. With new public health challenges and net zero targets, this vision for a smart campus is more important than ever.

Community College of Allegheny County (CCAC) is a renowned two-year college in Pennsylvania. With over 30,000 students enrolled, the school's administrators remain committed to offering an exemplary campus environment that surpasses expectations. They knew that the most efficient way to meet their goals, especially while safely navigating the COVID-19 pandemic, was by investing in a campus powerfully connected by data. To bring their smart campus vision to life and deliver record-breaking innovation, CCAC turned to Johnson Controls, a partner to the school for nearly 30 years.

Implementing the Largest Community College IoT Project in the World

Leveraging a combination of federal relief dollars and available capital, Johnson Controls experts got to work putting the school's $11.2M modernization plan into action. This includes adding more than 17,400 new points of control across 13 buildings, making it one of the largest community college IoT installations in the world.

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- Carlo Vazquez, vice president and chief facilities officer at CCAC

Data is the keystone to this initiative. IoT sensors placed in classrooms will measure real-time occupancy rates, allowing HVAC systems to automatically activate airflow to improve overall indoor air quality (IAQ) and mitigate harmful airborne particulates, including viruses. These sensors communicate with Johnson Controls building management systems to deliver AI-powered decision-making, minimizing the need for 24/7 human interaction. LED lighting upgrades will further improve the student experience by creating a welcoming and comfortable environment designed for productivity, while updated control panels address the school's deferred maintenance backlog.

The Key to a Healthy, Sustainable and Smart Campus is Data

The resulting campus will be powerfully connected by data analytics, enabling strategic decision-making that delivers tangible outcomes. In addition to fostering healthy and comfortable spaces, the insights provided by sensor technology will also allow for elastic space management, ensuring every room is utilized to provide the most value to students and staff. As a result of data-powered optimization and technology upgrades, energy consumption in updated buildings will be reduced by at least 20%, helping CCAC remain eight years ahead of its 2030 Green Building Alliance goals.

"Working with our long-time partner Johnson Controls has allowed us to invest in a smarter campus that will safely and sustainably welcome generations of future students," said Carlo Vazquez, vice president and chief facilities officer at CCAC. "Thanks to Johnson Controls willingness to collaborate, we will gain the insights, flexibility and efficiency to continue delivering a fulfilling student experience. And by using federal relief dollars, we will achieve this without impacting tuition or our budget."

"Through its smart campus initiative, the Community College of Allegheny County is helping to set the standard for sustainability in higher education," said Mark Altsman, vice president and area general manager, Mid-Atlantic, at Johnson Controls. "By deploying groundbreaking IoT technology, CCAC has gained the insights, flexibility and efficiency to reach its goals and deliver an outstanding student experience."

Through thoughtful and groundbreaking IoT technology application, the Community College of Allegheny College will be equipped to continue providing the value-driven education it is known for while supporting healthy and sustainable goals. To further support the school's HVAC, fire, security and digital academic programs, as well as the career pathways of the next generation of innovators, Johnson Controls awarded CCAC $100,000 in philanthropic funding under its 2022 Community College Partnership Program.

To learn more about how Johnson Controls collaborates with higher education institutions, visit:

www.johnsoncontrols.com/industries/higher-education