A MESSAGE FROM THE

Executive Director

Illinois ranks as the No. 1 public university in the country for international students and scholars, according to a recent Open Doors® report.*

I had the privilege of speaking to dozens of students gathered for the International Scholar Reception at the Alice Campbell Alumni Center on September 11, 2019. While there, Dr. Andreas Cangellaris, vice chancellor for academic affairs and provost, and I relayed to the students that creating strong international ties is essential to excellence.

Illinois changes the world through innovative research and transformative learning experiences. F&S, through academic collaborations, our stewardship of valuable resources, and our good community-oriented deeds plays a vital role in the health of the university, the community, and the world.

I encouraged these international student scholars to network with as many people as possible, including other international students, domestic students, and the larger community as a whole. It is people, after all, that make this university so special.

Meeting these students helped remind me that everyone who comes to the university is making a new home away from home. Our role is to make them feel as comfortable here as they are at home.

Our very mission is to support learning, discovery, engagement, and economic development at the university and be an active partner in research, teaching, and learning.

I hope you enjoy this edition of Insider. In it, you will see how F&S’ mission is fulfilled every day. We hosted events for our customers, helped introduce a new shuttle service, recognized campus colleagues for their energy savings, expanded our roof repairing capabilities, and so much more.

Sincerely,

Dr. Mohamed Attalla, MBA, P.Eng.
Executive Director, Facilities & Services

*The Open Doors® Report on International Educational Exchange is published by the Institute of International Education.

Little Kids, Big Garage

Eighteen preschool students experienced a field trip they’ll never forget. Some may grow up to become engineers or mechanics, or gain a greater appreciation for the scope of work and responsibility at F&S.

On November 14, kids from the Next Generation School took a unique tour of the Garage and Car Pool facility with Pete Varney, associate director of Operations, Maintenance & Alterations, Transportation & Automotive Services, and Shawn Patterson, transportation manager.

Patterson showed the students all kinds of vehicles, including a front-loader, garbage truck, horse trailer, and many more. He also answered students’ questions about wheels, tractors, and how different types of trucks are repaired. Tours of working facilities, including the Garage and Car Pool, are available year-round and help spotlight how F&S touches on the lives of students, faculty, staff, and the local community.

Shawn Patterson answers questions from students at the Garage and Car Pool.
Customer Focus

Car Pool Customer Forum

Approximately 30 invitees attended the Car Pool Customer Forum on September 25. Attendees discussed transportation choices for campus, including the new UI Ride shuttles and car rental options.

Dr. Mohamed Attalla, F&S executive director; Pete Varney, associate director of Operations, Maintenance & Alterations, Transportation & Automotive Services; and Macie Sinn, transportation clerk, presented and answered questions.

Supplier Diversity Vendor Fair

F&S hosted the Supplier Diversity Vendor Fair on October 24, which provided minority- and women-owned business enterprises (MBE/WBE) the opportunity to meet with F&S staff. This interaction is vital to help businesses become partners with the university and strengthen current relationships.

“Developing these working partnerships are critical for the university not only achieve MBE/WBE goals but also expand upon the suppliers, consultants, and contractors doing business in the Champaign-Urbana market creating a more competitive and robust contracting community,” said Jim Sims, Director of Engineering & Construction Services. “As a land grant state university, Illinois has a responsibility to be a positive contributor, including providing economic growth opportunities for under-represented groups within these communities to assist in making Champaign-Urbana and Illinois the best it can be for all of their residences and visitors.”

Twenty-four vendors participated, marking an increase from previous years' events. The university has set goals for the percent of business performed with such entities, and this event aims to increase that percentage.

“Events like this one help F&S staff to meet face-to-face with certified firms to learn about the products and services they can provide, which increases the contracting opportunities with the companies,” said Maria Thompson, procurement manager at F&S. “As the largest service unit on campus, we remain committed to increasing contract spending with diverse vendors.”
A new University of Illinois System shuttle service, called UI Ride, started serving U of I students, faculty, and staff on October 31.

The service features three daily round trips, Monday through Friday, going to two stops on the Urbana campus and two on the UIC campus, plus one at the Discovery Partners Institute in Chicago led by the U of I System. The 18-seat buses feature amenities like onboard Wi-Fi, a restroom, a changing room, a small work table for on-the-go meetings, a mini-refrigerator, a sink, and are wheelchair accessible.

"UI Ride is a tremendous resource for the university community," said Dr. Mohamed Attalla, executive director of F&S. “We expect riders to have a positive experience through every step of the process.”

The onboard Wi-Fi comes thanks to a collaboration between Technology Services and F&S’ Information Technology Services department, which fit the custom-made system into the buses.

Director of Shared Administrative Services Curt Taylor said, “The bus service enhances productivity by providing direct connectivity to IllinoisNet and access to a collaboration table.”

Pete Varney, associate director of Operations, Maintenance & Alterations, Transportation & Automotive Services, said another benefit of UI Ride is to reduce Car Pool vehicles on the interstate going back and forth between the Urbana and Chicago campuses.

“The buses are state-of-the-art and can help make each customer more efficient with their visit to the other campus,” said Varney.

Trips begin each weekday at 5:30 a.m. and arrive as late as 7:30 p.m., allowing customers to attend morning meetings, but still get back home at a reasonable hour, while providing more working opportunities on the bus. Reservations require a university NetID. Tickets cost $40 one way and can be booked at uiride.uillinois.edu.
At the formal UI Ride launch event, held outside of Levis Faculty Center on October 3, U of I System and Urbana campus administrators welcomed guests. Speakers included Timothy L. Killeen, president; Karen Greenwalt, director of operations for the office of the chief financial officer; and Susan Martinis, vice chancellor for research. All attendees were able to tour the bus. A similar launch event was held on the UIC campus on October 9.

Killeen spoke about the importance of enhanced safety, sustainability, brand visibility, and time management, thanks to the new shuttle service.

“The gift of time is invaluable to riders,” said Killeen. “UI Ride can also help market the impact of our university – it’s a moving billboard. People will notice this.”
Solar Days Ahead

“This is a really exciting moment in campus sustainability, where one of our innovative projects—the first solar farm F&S established—is a prototype for more solar farms throughout the state. Once both solar farms are in production, we will have 75 acres of on-campus solar produced right here at Illinois!”

~ Morgan White, associate director Facilities & Services, Sustainability

Solar Farm 2.0 is coming to campus, and this one will be even bigger and more productive than the first. A solar farm is a collection of photovoltaic (PV) panels, referred to as solar panels, that converts sunshine into electricity. This is the second solar farm operated by the University of Illinois; the original solar farm is a 21-acre array that produces about 7,000 MWh/year of electricity since starting operation in December 2015.

How much energy will Solar Farm 2.0 produce?
The 12.1 megawatt array will generate the equivalent electricity use of more than 2,000 average American homes. It will produce approximately 20,000 megawatt-hours (MWh) annually. Once up and running, it will make the university the third-largest user of renewable power generated on-site for higher-education facilities in the country.

“We expect Solar Farm 2.0 to be very productive for the university, just like the first one has been,” said Kent Reifsteck, director of Utilities & Energy Services. The first solar farm has helped save 27.5 GW/h of energy since it came online.

Why is this important?
The new array will achieve the university’s Illinois Climate Action Plan (iCAP) objective for solar installations on campus property. Thanks to the new array, the Urbana campus will produce 25,000 MWh/year by 2025, representing 10 percent of expected electrical demand in 2050. The university expects to save $300,000 in the first year of operation as compared to purchasing electricity in the traditional market.

Where is it going?
The 54-acre site is near the north side of Curtis Road between First Street and the Canadian National railroad tracks just east of U.S. Route 45 (Neil Street). The Chancellor’s Capital Review Committee selected the location in July 2018.

“From its very inception, the university has been responsive to Savoy’s concerns and suggestions for the expansive solar farm. Creating an aesthetically-pleasing frontage on Curtis Road, as well as designing a new pollinator and wildlife habitat, benefits our community,” said Joan Dykstra, Savoy Village President. An aesthetically pleasing and 98 percent native plant “buffer” will be added between the farm and Village of Savoy homes and businesses.

What else should I know about this project?
The land where the arrays are constructed will also feature a pollinator habitat that will enhance ecosystems for local and migratory birds and insects, including butterflies and bees. The site adds to the university’s commitment to being a “Bee Campus USA,” proving progress in awareness, native plant landscapes, and safe pest management while serving as a demonstration for pollinator-friendly solar arrays.

For more information about the university’s solar farms, visit: https://www.fs.illinois.edu/services/utilities-energy/production/solar-farms. There you can view pictures, videos, get up-to-date news, and see a dashboard that provides hourly information on the original solar farm’s renewable energy production and impact to campus.
Back in the LEED

Two high-profile campus buildings have received LEED® certification in recent months, bringing the number to 21 total projects that have earned the honor from the U.S. Green Building Council.

Everitt Laboratory

Everitt Laboratory earned a Gold-level status after a major renovation to the home of the Bioengineering department.

“Transforming an existing building, originally built in 1949, into an exceptional modern LEED Gold facility is a real accomplishment,” said Dr. Mohamed Attalla, executive director of F&S.

Renovations include optimizing energy performance savings of 28 percent, and contracting with Green Power to procure 70 percent of the electricity used in the building. A rain garden is featured outside, too.

Electrical and Computer Engineering Building

The Electrical and Computer Engineering (ECE) Building was certified LEED Platinum for implementing strategies and solutions to achieve the highest awarded performance in sustainable buildings. LEED points were earned for sustainable site development, water savings, energy efficiency, materials selection, sustainable construction and waste management, and indoor environmental quality.

The ECE Building is designed to be one of the largest net-zero energy buildings of its kind in the country. It includes a solar panel array on the roof, passive heating and cooling features, including a terra cotta exterior and sun shades, and a chilled-beam heating and cooling system. ECE also features a stormwater storage system, which holds runoff water from the building.
For the second consecutive year, the U of I is the best at implementing cold-storage best management practices, including reducing the energy required for laboratory cold storage. Campus efforts in more than 70 labs across 15 buildings earned back-to-back first place awards in the International Laboratory Freezer Challenge “Academic” category.

The energy saved decreased by an estimated 438 kWh/day or a combined annual total equivalent of 13.5 typical U.S. homes energy in a year. Researchers received points for taking actions such as properly maintain freezers and refrigerators, discarding old samples, and retiring unneeded units.

These good works benefit researchers by increasing lab efficiency, extending equipment life, and maximizing space utilization.

Since implementing centralized energy conservation programs and encouraging occupant action such as the Energy Conservation Incentive Program (ECIP) and the Freezer Challenge, the campus has decreased energy use by a whopping 38 percent, according to Kent Reifsteck, director of Utilities & Energy Services.

“When you take a step back and look at that number, it’s a tremendous achievement for the university,” said Reifsteck.

The Freezer Challenge is coordinated by F&S staff, in collaboration with the Office of the Vice Chancellor for Research, Division of Research Safety; the Institute for Sustainability, Energy, and Environment (iSEE); the Student Sustainability Committee (SSC); and the Eco-Olympics Student Organization.

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The Ming Lab in the Department of Plant Biology received an honorable mention in the “individual-laboratory” category in the Freezer Challenge for its efforts.

The Ming Lab stores biological samples like plant tissue, RNA, DNA, and enzymes.

“I started doing the inventory of all the fridges, cleaned out samples, and defrosted everything because I like the lab to be neat,” said lab manager Julie Nguyen.

Nguyen says another benefit is for the global effect of saving energy. “I think more of the overall environmental impact. We’re trying to reduce overall energy consumption and I know a majority of us do this across all fields, so if we can help reduce something, that would help make the world a better place, overall.”

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The Energy Conservation Incentive Program (ECIP) provides awards to representatives of campus buildings that demonstrate the greatest percentage of energy savings over the previous fiscal year.

F&S recognized the efforts of eight campus facilities for their energy conservation successes during the Campus Sustainability Celebration on October 23, at the Levis Faculty Center.

Buildings compete in one of two categories: Occupant Action and Energy Advancement. Occupant Action includes things building users can do themselves to collectively reduce energy use, such as turning off lights when they leave a room. Energy Advancement includes energy conservation improvements to the building itself, such as optimizing heating and air conditioning systems and controls.

The ECIP started seven years ago as a way to encourage and reward energy conservation achievements in support of the Climate Leadership Commitments. State-supported and auxiliary buildings of 10,000 gross square feet or more are eligible for the awards program.

For more information, visit https://www.fs.illinois.edu/services/utilities-energy/energy-conservation/ecip.
Collecting More to Save More  

This fall, new collection containers were placed in buildings across the campus. Those containers will help students, faculty, staff, and visitors properly dispose of waste and recycling.

These new containers feature three top openings with easily identifiable and color-coded labels for either “landfill,” “paper,” or “bottles & cans,” to sort trash and recycling at the earliest possible stage. This simple act will save time and expenses as the U of I attempts to divert a higher rate of waste from the landfill. Containers can be found in first-floor hallways of often-visited buildings to enhance exposure.

The acquisition and distribution of the new containers was coordinated by the Illinois Sustainable Technology Center and the F&S Waste Transfer Station.

“We’ll continue to increase the number of containers over time, but we want to get a big impact now,” said Pete Varney, associate director of Operations, Maintenance & Alterations, Transportation & Automotive Services. “We want them to be seen to encourage usage.”

Shawn Patterson, transportation manager, said, "We need everyone’s help to make sure we are recycling the right items, and these containers will help us accomplish the university’s goal of an increased recycling rate."

The university set a goal that by 2020, 30 percent of waste should be diverted from landfills to recycling.

For information about the containers and campus-wide recycling efforts, contact recycling@illinois.edu.

Educational Foundations  

The Campus Instructional Facility (CIF) is getting a head start on its future as cutting-edge teaching and learning space.

Substantial completion is expected by early 2021, but some professors and students have already interacted with the site at the corner of Springfield Avenue and Wright Street in Urbana. Structural and mechanical engineering students and professors examined the area to learn how cutting-edge construction sites are conceived and managed.

Civil and Environmental Engineering (CEE) assistant professor Dr. Tugce Baser brought her CEE 380 Geotechnical Engineering class to examine the excavation process, design of earth-retaining walls, and types of foundations. The visit allowed Dr. Baser to showcase the site’s soil, an important factor in construction.

“I teach theory and principles of soil mechanics in the classroom and try my best to connect these principles with real-life applications,” said Dr. Baser. “Constructions sites are living labs and living classrooms for civil engineers. To be more specific, I tell my students that dealing with soils is always trying to solve a puzzle because of a lot of uncertainties and geotechnical engineers unveil the unknowns of the subsurface.”

Dr. Baser reached out to Dr. Mohamed Attalla, executive director of F&S, who connected her with Doug Reddington, the F&S project manager and senior planner on the construction of CIF. “If you think about our institution as a learning environment, having these students go see a site like this is important,” said Reddington. “In time, these students will become the next structural engineers and mechanical engineers. So, it can be very valuable to look at the systems of a building as they go up.”

“I teach theory and principles of soil mechanics in the classroom and try my best to connect these principles with real-life applications.”

~ Dr. Tugce Baser, assistant professor, Civil and Environmental Engineering
The 2019-2023 F&S Strategic Plan has been a working document since the summer of 2019. The plan lays out the themes, objectives, actions, and measurables to push F&S toward greater productivity and value to its customers.

“This plan focuses our entire organization on improving our day to day work,” said Dr. Mohamed Attalla, executive director of F&S.

F&S’ plans align with the strategic goals of the university. “Its purpose,” Dana Gillon, coordinator of special programs and project lead for the strategic plan implementation, said, “is to strategically move us beyond where we are by looking not just at what we do, but why we do what we do, and how we do it.”

Customers' needs change, and F&S has to be agile in our response; what worked in the past may not work today. Throughout these changes, F&S remains committed to being a responsive, reliable, and highly valued service provider.

The plan focuses on current trends, streamlining tasks, and anticipating prospective needs. Because each area at F&S is operationally different, the objectives and goals of each group are different. Universally, however, the strategic plan provides an explanation of the purpose.

“The work our employees do impacts campus and has value to F&S as an organization,” said Gillon. “The work they do matters, and it makes a difference. When they look at the Mission, Vision, Values, and Guiding Principles of the organization they should find themselves.”

Gillon noted that the Strategic Plan isn’t just a document or a promotional poster, but is “really something that has to guide the work we do. It’s not just doing ‘business as usual’ or ‘doing things the way we always did.’ We have to pay attention to current trends and business models.”

**Change Management**

To improve the functionality of the work of F&S, a “change management” discipline has been adopted. This way of thinking and operating is meant to achieve measurable results in the unit’s business strategies, work processes, structures, technologies, organizational cultures, and management styles.

Change management is a system of practices meant to make the entire organization of F&S more adaptable and quicker to adjust to customer needs, emerging technologies, and best practices. Benefits that result from change management can include:

- Business process design projects (reengineering)
- Technology or system upgrades and replacements
- Organizational restructuring
- Business expansion or downsizing
- Business model changes or new business ventures
- New marketing campaigns or changes to marketing programs
- Redesign of jobs
- Changes that impact customers

F&S has established a change management framework, which includes five phases for change projects with associated tools and templates. The phases include initiate, plan, execute, monitor and control, and close. When a change project is initiated, the sponsor will work with the change manager to select change champions to help staff across F&S become familiar with and accepting of the planned changes. The two main change projects this year are focused on increasing the percentage of projects that are on schedule and on budget with satisfied customers, and improving the culture of diversity and inclusion within F&S.

“Change management is focused on the people impacted by a change and making sure that our staff all understand and support the future vision,” said Morgan White, associate director Facilities & Services, Sustainability and F&S change manager.

“Change management is focused on the people impacted by a change and making sure that our staff all understand and support the future vision,” said Morgan White, associate director Facilities & Services, Sustainability and F&S change manager. “This is a great process for F&S to use, so we can provide personal and professional support to our employees and address their concerns during transitional times. We realize that change often leads to stress and uncertainty, and we are dedicated to supporting everyone through these transitions.”
The F&S Capital Programs (CP) division is using improvement suggestions from the accounting firm Ernst & Young (E&Y) to enhance effectiveness.

E&Y was commissioned to review the CP delivery process for the University of Illinois System and benchmarking against Big Ten universities and other peer institutions. Areas of opportunity were identified, and final recommendations made, allowing for a more cost-effective and efficient capital projects process, completing projects on schedule and on budget, resulting in satisfied customers.

New standard operations will hold everyone in CP accountable. That includes simple communications needs, like taking less than 24 hours to respond to emails, or providing bi-weekly reports instead of monthly.

Clarence Odom, associate director of Capital Programs, Project Management, welcomes the recommendations.

“The changes will help CP deliver projects on schedule and on budget more consistently,” said Odom. “We can standardize procedures. We need that consistency so we have something to measure when we assess, well, this way works and this way doesn’t work as well.”

“This is how we can deliver the projects more effectively and efficiently. These changes will help us operate at our best.”

~ Clarence Odom, associate director of Capital Programs, Project Management
Shop Spotlight: Roofers

Thanks to the Safety and Compliance division, roofers now have enhanced safety measures while performing their duties.

Shane Carr, roofing shop foreman, arranged for new safety equipment before one of the largest roofing jobs ever performed on campus by the shop: McKinley Health Center.

The new equipment, such as a new roof-top robot that welds seams, new safety railing that allows for greater freedom of movement while on a working surface, and a mobile fall protection cart all help roofers stay safe.

The temporary railing, which is installed on the boundary of the working surface, allows roofers to work free of leashes that tie them off to an anchor point; on other locations where railing cannot be installed, they can be tied to a 700-pound, wheeled cart that prevents anyone from falling by one of two different mechanisms, one of which features a giant, powerful claw to hold the cart in place.

Meanwhile, the robot is a remote-controlled wheeled machine that welds and flattens the surface at extreme temperatures, up to 1,150 degrees Fahrenheit.

“This shop has literally rebuilt itself in the past 13 months,” said Carr. “We have an excellent crew that can tackle anything, and this new technology will help us even more.”

Roofers Garret Mayhall, Chris Harrison, Travis Houser, and John Fagin help make the shop productive. Carr and his crew are excited to take on more projects.

“We want to show the rest of campus what we can accomplish,” said Carr.