# **ENGINEERING: TODAY & TOMORROW** FALL 2020

**OF POST-PANDEMIC ENGINEERING ADMISSIONS** PAGE 4

THE 3 Cs

THE ENGINEERINGCAS **ADVISORY BOARD: EET THE LEADERS** GUIDING ENGINEERING **EDUCATION FORWARD** 

PAGE 6

AS AND COMMUNITY BUILDING: **ENGINEERING A BIG-PICTURE VISION** 

PAGE 8

### **FROM FITS AND STARTS TO A ONE-STOP SHOP:**

Transforming TAMU's Engineering Admissions

**PAGE 12** 

Brought to you by ENGINEERINGCA

### **Engineering a New Normal**

ife as we have known it has irrevocably changed. The events of the last few months have forced us all to rethink what is essential. For many students, the global pandemic has interrupted their idealized academic plans. Additionally, the disruption has also forced enrollment management professionals to reconsider how they move forward and build their 2020-21 academic class. However, one of the most remarkable things I have noticed amongst a diversity of academic constituents is that the value of a quality education has not been shaken.



One positive note that rings loudly is the realization that the path forward is not going to be crafted in a vacuum. In this inaugural issue of *Engineering: Today & Tomorrow*, readers will see how some institutions are harnessing the power of EngineeringCAS<sup>™</sup> to build student-friendly processes for finding the right institution, navigating admissions procedures and, in some cases, finding financial support.

As you may already know, EngineeringCAS — the first and only Centralized Application Service (CAS<sup>™</sup>) for engineering programs — gives engineering admissions offices a better way to recruit, enroll and admit best-fit students while saving money and better allocating staff resources each admissions cycle. Liaison's global platform for driving applicant volume while providing an optimized applicant experience benefits your admissions office by increasing your engineering programs' visibility, decreasing your time to decision and providing a wealth of data about enrollment trends and performance.

As we move forward, I hope the articles in this issue encourage us to maintain an appreciation of our constituents' academic and emotional needs. The matriculation process will be different for everyone, and we need to adopt a heightened appreciation for how our students perceive and interact with our systems, processes and people. In the end, simplicity, transparency and consistency will rule the day.

Our editorial team would love to hear your feedback about this issue of *Engineering: Today & Tomorrow* and any suggestions you may have for future issues. They can be reached at editorial@liaisonedu.com.

Enjoy,

#### Craig G Downing, Ph.D.

Associate Dean of Lifelong Learning Department Head and Professor of Engineering Management Rose-Hulman Institute of Technology Chair of the EngineeringCAS Advisory Board

### In This Issue FALL 2020



The 3 Cs of Post-**Pandemic Engineering** Admissions



Liaison's EngineeringCAS Now Serves More Than 1,000 Programs and Offers **Scholarships** 



6 Advisory Board: The EngineeringCAS Meet the Leaders

Guiding Engineering Education Forward



# CAS and Community Building:

Engineering a Big-Picture Vision

**10** COVID-19 Has Forced Engineering Admission **Engineering Admissions Processes to Evolve** Strategically

**12** From Fits & Starts to a One-Stop Shop: Transforming TAMU's **Engineering Admissions** 

The Engineering Community **Unites Behind** EngineeringCAS

16 Rose-Hulman Institute of Technology **Reengineers Its** Admissions Process by Sending Paper to the Scrap Heap

**18** Diversifying Engineering: On Campus and in the Workforce

What Applicants Really EngineeringCAS

# The 3 Cs of Post-Pandemic Engineering Admissions

igher education in general, and engineering programs in particular, face unprecedented challenges in 2020 as public health, immigration and economic factors converge in a perfect storm that clouds the outlook for recruiting, admissions and enrollment.

To help programs weather the current crisis and thrive in the years to come, Liaison recently convened a panel of engineering program leaders who shared their thoughts on the "3 Cs" of post-pandemic engineering admissions — continuity, communication and community.

#### **Voices and Viewpoints**

Panelists include Tandilyn Morrel (Director, Graduate Programs, Texas A&M University Engineering) and David T. Poole (Director, Admissions, University of Miami College of Engineering). During the talk and subsequent question-and-answer session, panelists explain:

- How they're addressing challenges posed by declining international enrollment.
- How they mine application and enrollment data to gain important class-building insights.
- How they use EngineeringCAS and EMP<sup>™</sup> (Liaison's Enrollment Marketing Platform) to successfully engage with applicants during every step of the process.
- The benefits of collaborating on shared solutions with peers who are also members of the EngineeringCAS community.

"When we made the move to online education, we needed to find a way to maintain business continuity," Poole said. "I have to say that from an enrollment management standpoint, I was really thankful that we were already part of EngineeringCAS. It provided full functionality for applicants as well as for our internal processes."

"EngineeringCAS really took a lot of weight off our shoulders," Tandilyn Morrel said. "Our admissions process didn't slow down at all. It was business as usual because our admissions committees could continue to meet whether the faculty was on campus or working remotely. They could still evaluate and score applicants and continue the admissions process. We were also able to reach out immediately to applicants in the CAS to convey pertinent information as well as proactively address any concerns that they had."

To hear the rest of their conversation about helping engineering programs thrive, <u>watch "The 3 Cs of Post-</u> <u>Pandemic Engineering Admissions."</u>

## ADMISSIONS OFFICE

# Liaison's EngineeringCAS Now Serves More Than 1,000 Programs and Offers Scholarships

iaison, the leader in admissions management and enrollment marketing solutions for higher education, recently released details about the ongoing success of EngineeringCAS, the only Centralized Application Service (CAS) for engineering programs.

Launched in July 2017, EngineeringCAS helps admissions offices enhance their recruitment and enrollment initiatives while conserving valuable resources each admissions cycle.



EngineeringCAS has allowed Liaison to form important strategic partnerships with many engineering organizations and societies, including the American Society for Engineering Education (ASEE), the Global Engineering Deans Council (GEDC), the International Federation of Engineering Education Societies (IFEES), the American Society of Mechanical Engineers (ASME) and the American Society of Agricultural and Biological Engineers (ASABE).

"Today's engineering admissions leaders are under tremendous pressure to yield best-fit students in the face of limited resources, increased competition and ever-evolving student demands," said Ron Hyman, managing director of EngineeringCAS. "The robust growth of EngineeringCAS in just its first three years clearly demonstrated its ability to deliver the results engineering programs require in order to achieve their most important short- and long-term gains."

David T. Poole, director of admissions at the University of Miami College of Engineering, agrees. "The potential that I see in EngineeringCAS is almost limitless," he said. "It brings together all the aspects that you would need within enrollment management."

#### To learn more about EngineeringCAS, visit engineeringcas.org

### **The EngineeringCAS Advisory Board:**

#### **Meet the Leaders Guiding Engineering Education Forward**

The EngineeringCAS advisory board is comprised of subject matter experts from campuses across the U.S. These engineering education professionals provide strategic guidance and drive the vision for the Centralized Application Service (CAS) for engineering programs. These leaders focus on innovation and collaboration with the Liaison team, and they serve as our connection to the greater engineering community.



Sondra Auerbach Assistant Dean of Student Services





**DeeDee Conway, Ed.D.** Associate Dean of Operations





Natacha DePaola, Ph.D. Carol and Ed Kaplan Armour Dean of Engineering Professor of Biomedical Engineering



Kitty Didion Vice President





**Craig G. Downing, Ph.D.** Associate Dean of Lifelong Learning Department Head and Professor of Engineering Management



Chair of the EngineeringCAS Advisory Board



Noha El-Ghobashy Vice President of Strategic Initiatives











Shahram Haydari, Ph.D.

Assistant Dean of Graduate Recruitment & Admissions





**Stacey Herman** Director of Graduate Programs

BU College of Engineering



Hans Hoyer, Ph.D. Secretary General of IFEES Executive Secretary of GEDC





#### Harry Hogan, Ph.D.

Associate Dean for Graduate Programs



#### **ENGINEERING** TEXAS A&M UNIVERSITY



Erick Jones, Ph.D. George and Elizabeth Endowed Full Professor Associate Dean of Graduate Affairs Director of RAID LABS





Ramiro Jordan, Ph.D. Professor Associate Dean of Engineering for International Programs

N **ENGINEERING** 



Nathan Kahl

Managing Director of Communications & Society Advancement





Mais Kayyali Associate Director of Academic Support Services





Janet Morgan Director of School of Science and Engineering Graduate Programs

Tulane University SCHOOL OF SCIENCE AND ENGINEERING



Nina Parshall Director of Graduate Recruitment and Support





**Tandilyn Morrel** Director of Graduate Programs



**David T. Poole** Director of Admissions



UNIVERSITY OF TEXAS ARLINGTON

# **CAS and Community Building:** Engineering a Big-Picture Vision

## **L** COLLEGE of ENGINEERING

When the University of Miami College of Engineering (UMCoE) joined Liaison's EngineeringCAS in November 2018, Director of Admissions David T. Poole already had a big-picture vision for the impact of EngineeringCAS not only at his school but throughout the engineering field.

"The train was leaving the station, and I wanted to be on that train, which is the future of making the process for admission for graduate studies in engineering one that is much more dynamic, much more user-friendly and one that provides us with the data to make critical managerial decisions," said Poole, explaining UMCoE's decision to join the Centralized Application Service (CAS) for graduate engineering programs.

EngineeringCAS provides admissions offices with a better way to recruit and admit top engineering students, save money and allocate staff resources more efficiently year after year. Its platform is the manifestation of one of Liaison's partnerships with more than 30 professional associations across academic disciplines; these partnerships have each introduced disciplinespecific versions of Liaison's CAS, the cloud-based student admissions solution, which has helped more than 31,000 programs on more than 1,000 campuses optimize their application and enrollment processes. All disciplinebased CASs are available at no cost to participating programs.

#### But what exactly is EngineeringCAS?

For applicants, EngineeringCAS offers a single portal that streamlines their process for researching and applying to multiple programs of interest, offers a modern application experience that guides them every step of the way and provides 24/7 access to real-time updates on applications.

For programs and institutions, EngineeringCAS drives awareness, streamlines the application process and provides tools that enable targeted, personalized communications to those interested in a program. It decreases decision-making times by providing a processing team to scan transcripts and package application components as an extension of your admissions staff. EngineeringCAS also provides insight into enrollment trends and performance on a campus through robust analytics and reporting tools.

Poole, a member of the EngineeringCAS advisory board, is passionate about the CAS platform's benefits for the entire engineering discipline, as well as graduate education as a whole.

"In higher education, the majority of the focus really has been on undergraduate education," he said. "The graduate admissions enrollment management community has been completely disjointed. There was nothing bringing that community together. One of the things that really attracted me to Liaison and the CAS was their ability to build communities within and across disciplines at the graduate level. They bring people together who are working with the same set of challenges, issues and budget constraints to share best practices in terms of how the CAS can assist both the students and the institution, but also to have a forum to discuss issues, concepts and ideas."

Poole continued, "Many times on the enrollment management side in graduate education, we're working in a vacuum. But the more we work together, the stronger we're going to be as a community of educators and institutions. In the long run, that will only help the students we serve in their education and career preparation."



#### From segmentation to unification

Under UMCoE's previous enrollment management vendor, the engineering school maintained separate processes for gathering applicants' biographical information, letters of recommendation, transcripts and test scores. The admissions office created and then manually updated spreadsheets to track applicants' progress in the process, while yet another portal was used to communicate with applicants.

"Everything was very much segmented and used multiple systems to process each particular student," Poole recalled.

Poole said he heard from other University of Miami programs, which were already using CASs, that "the students seemed to be really happy that they only had to submit one set of transcripts and one set of letters of recommendation, and were able to utilize the documents for multiple applications that they would have, while the programs themselves were even able to communicate directly to students within the same portal."

"CAS had all of those things built into it, as a one-stop shop," he said.

Furthermore, Poole was excited to learn that EngineeringCAS provided "an opportunity to log in just one time, to see data on the dashboard and view a group of students who may not have completed an application and start communicating with them rather than logging into another system and doing it."

#### 'We killed lots of trees'

Before EngineeringCAS, Poole said there was "nothing paperless about our process."

"We killed lots of trees," he said.

By making the admissions process completely paperless, UMCoE joined the thousands of programs that save time and money by embracing the wave of the future through CAS.

#### **Streamlining communication**

With EngineeringCAS, Poole explained, UMCoE's admissions committee meetings "could take place regardless of whether a faculty member is sitting in an office above me or they're sitting halfway around the world." "Liaison provides an opportunity where people have a voice that will be heard, and change does happen as a result of people being able to express themselves, whether it's at an advisory board meeting, at a user conference or even just reaching out to the team there," he said.

<sup>44</sup>The thing for all of us working in admissions is to take the technology and make it work for everybody. EngineeringCAS works for students because it simplifies the process in terms of submitting documents. It also simplifies things for us with new resources for document imaging and storage. It shortens the process of helping us get the word out to prospective students faster, so that they have the information they need to choose what's going to be the best place for their graduate education.<sup>77</sup>

"We are building out best practices for ourselves as we learn more about how other schools which have been using CAS have implemented the software and its functionality in reporting, scoring and communication," he said. "We're throwing everything out that we did before, using something that already has a template in place and creating systems internally that will work best for not only the College overall but for programs regardless of their level, whether they're masters or Ph.D. programs."

### Breaking down boundaries in higher education

Poole believes Liaison is driving a movement in which technology and communication "break down the silos" in higher education and enable institutions to rethink the ways they've traditionally done business. After all, technological platforms like EngineeringCAS don't appear out of thin air — there are people behind them, Poole said.

"It's not just words and charts and technology," he said. "Hopefully, people who are exploring the possibility of joining a CAS will see they have partners — regardless of the fact that they may be working at other institutions — who ultimately have the same goal to prepare the best students in their discipline. In CASs, Liaison provides the forum for all students and institutions to use a common platform to reach their goals, and in return, to help make the world a better place."

Learn more about the community for graduate engineering programs at <u>engineeringcas.org.</u>

# **COVID-19** Has Forced Engineering Admissions Processes to Evolve Strategically

#### By Ron Hyman, Managing Director of EngineeringCAS

With COVID-19 disrupting almost every aspect of life, I have been reflecting on how important it is for institutions of higher education to continue serving their current and prospective students. Our EngineeringCAS team has made a team-wide effort to continue providing uninterrupted service, even as our offices and workflows have changed overnight. I'm sure all of you are experiencing the same types of massive disruptions, and I want you to know that we stand ready to help.

If you're worried about the future of enrollment at your institution, you aren't alone — 88% of college and university presidents shared this fear in a recent survey.<sup>1</sup> As we adapt our day-to-day jobs to accommodate new guidelines and safety measures, we must also challenge ourselves to find innovative ways to serve students and applicants. It might be months before we return to any sense of normalcy, so we can't afford to wait to start evolving engineering admissions to meet the demands of the present moment.

As your institution's enrollment processes change, EngineeringCAS will provide you with the tools your school needs to make this transition quickly and effectively while positioning yourself for continued success down the road.

EngineeringCAS will help you efficiently outsource your effort while retaining the control and decision-making that makes your programs unique. Between switching to remote work, caring for children and keeping up with news and events, your team already has a lot on their plate. Let EngineeringCAS pick up the slack so that you and your team can direct your energy toward your enrollment goals.

Our model has always been to provide EngineeringCAS at no cost to you, the schools, and that will not change.

The world has changed, but our commitment to providing transcript and document scanning, test score verifications, international evaluations, automated communications and customer service continues uninterrupted. We're also helping our participating institutions recruit new applicants for the coming year. With EngineeringCAS, your program will gain exposure to a greater pool of applicants, making it possible to broaden your reach and target the right students to fill your next class.



Please check out <u>Liaison's Coronavirus (COVID-19) Resources for Admissions</u> <u>Offices</u>, and then email me (rhyman@liaisonedu.com) to schedule a call when you're ready to take control of your school's admissions future. I'll show you how EngineeringCAS can connect you to new populations of engineering students and provide the online, cloud-based systems essential for work during these challenging times.



# From Fits & Starts to a One-Stop Shop:

### **Transforming TAMU's Engineering Admissions**

n the previous era of admissions at Texas A&M University's (TAMU) College of Engineering, the application process was consumed by fits and starts.

First, the College of Engineering would need to wait until initial application data from the ApplyTexas online platform was translated for TAMU's own admissions office. Then, the data was uploaded to the TAMU system, after



which point each applicant received a student ID number. This multi-step process meant delays ranging from a few days to a full week before applicants would receive any kind of communication from TAMU's admissions office — ultimately causing the ripple effect of delays in TAMU's decision-making times on each applicant.

"One of the challenges we faced was that our graduate engineering advisors in each department did not have very much hands-on involvement regarding the predecision process in admissions, said Tandilyn Morrel, director of graduate programs for TAMU's College of Engineering. "They had to wait to hear from the admissions office that all the applicant documents were received before they could ever make a decision or reach out to the applicant."

An additional problem, Tandilyn Morrel explained, related to "those prospective students who were interested but may not have completed an application."

#### A one-stop shop

"We were not able to access data from in-process applicants in order to reach out to recruit them or communicate with them. Applicants would have to apply fully, and then we had to wait for all the application data to be received and uploaded in our system before we could actually reach out," she says, adding that TAMU was seeking a "onestop shop where we could have everything uploaded in one place."

TAMU found its one-stop shop through Liaison's EngineeringCAS, which makes it easier and more affordable to attract and enroll bestfit engineering students from one admissions cycle to the next. EngineeringCAS is one of 40 application services that serve a particular education discipline; it was launched in partnership with leading engineering education and professional associations. The cloud-based student admissions solution has helped over 31,000 programs on more than 1,000 campuses optimize their application and enrollment processes. All discipline-based CASs (CASs) are available at no cost to participating programs.

As TAMU discovered during its first year using the platform, EngineeringCAS benefits all admissions stakeholders.

For applicants, it offers a single portal that streamlines their process for researching and applying to multiple programs of interest, offers a modern application experience that guides them through the process and provides 24/7 access to realtime application status updates.

For programs and institutions, EngineeringCAS drives awareness of engineering programs through a streamlined application process and communication tools that enable targeted, personalized communications to those interested in a program. It also decreases decision-making times by providing a processing team to scan transcripts and package application components as an extension of an admissions staff. And EngineeringCAS provides insight into enrollment trends and performance on a campus through robust analytics and reporting tools.

"EngineeringCAS gave us one central location for applicants to do everything — a one-stop shop. It helped us close the gap in the previous delay between students applying and getting any response from our admissions office. That really changed our predecision process."

"Our graduate advisors now have greater access to admissions documents pre-decision, and they're able to play a more active role rather than waiting on the admissions office to gather this information," shared Tandilyn Morrel. They are also now able to reach out to in-progress applicants. This has been a significant benefit to our advisors."

#### Better branding, more resources

Catherine Roueche-Herdman, TAMU's associate director of Admissions, said EngineeringCAS gave the University a newfound "opportunity for national exposure."

"With ApplyTexas, no one is going to be applying unless they're specifically interested in the schools that the platform serves. And ApplyTexas only works with Texasbased schools, so the increased exposure offered by Liaison was attractive," she said. "The shift to EngineeringCAS also helped free up more resources in the admissions office." EngineeringCAS also offers a "branding opportunity," which was previously unavailable to TAMU, according to Tandilyn Morrel.

"We're now able to use our own University logos and images in the application process, not only for the College but for each individual department," she said. "So when each prospective applicant applies, they're able to get more details for every department. It looks like they're applying to Texas A&M University, instead of just completing a generic application."

Now equipped with EngineeringCAS, TAMU has set ambitious admissions goals moving forward — such as simultaneously boosting its bases of domestic and international students as part of a broader commitment to cultivating diversity. In Tandilyn Morrel's estimation, Liaison's commitment to high-level customer service has set the stage for achieving that bigpicture vision. ■



### The Engineering Community Unites Behind EngineeringCAS

EngineeringCAS currently partners with the following organizations dedicated to serving engineering students, programs and professions. Leaders from these organizations also serve in advisory capacities for EngineeringCAS and for Liaison as well.



Founded in 1893, the American Society for Engineering Education (ASEE) is a nonprofit organization of individuals and institutions committed to furthering education in engineering and engineering technology. It accomplishes this mission by promoting excellence in instruction, research, public service and practice; exercising worldwide leadership; fostering the technological education of society; and providing quality products and services to members.

"For ASEE members, EngineeringCAS simplifies the admissions process, ensuring that prospective students are aware of all the programs available to them and making it easy to apply to those that will best help a student meet his or her goals. In addition to its member benefit of freeing office staff to focus more on promoting student success, the service will offer insight into enrollment trends and the changing demographics of our applicant pools. With EngineeringCAS, we'll be better prepared to build a diverse class of students, attracting and retaining those with the unique perspectives that will solve society's most pressing issues."

- Norman Fortenberry, Sc. D., Executive Director, ASEE



The American Society of Mechanical Engineers (ASME) is a not-for-profit membership organization that enables collaboration, knowledge sharing, career enrichment and skills development across all engineering disciplines, toward a goal of helping the global engineering community develop solutions to benefit lives and livelihoods. Founded in 1880 by a small group of leading industrialists, ASME has grown through the decades to include more than 130,000 members in 151 countries. Thirty-two thousand of these members are students.

"EngineeringCAS helps graduate programs have exposure to and awareness of a larger, more diverse pool of applicants domestically and internationally, with research aspirations that better align with the strenghts of the programs. Through it, we'll advance the discipline by driving awareness of the programs and disseminating data that can be used to further evolve our field."

- Thomas G. Loughlin, Former Executive Director, ASME



The American Society of Agricultural and Biological Engineers (ASABE) is an educational and scientific organization dedicated to the advancement of engineering applicable to agricultural, food and biological systems. Founded in 1907 and headquartered in St. Joseph, Michigan, ASABE comprises members in more than 100 countries.

"ASABE is excited to be affiliated with Liaison's EngineeringCAS. We see this as a tremendous opportunity to highlight graduatelevel agricultural and biological engineering programs across the nation. Being a part of this effort from the start was important to us, and we're thrilled with the potential it brings for simplifying the application process."

- Darrin Drollinger, Executive Director, ASABE



International Federation of Engineering Education Societie

IFEES was founded in 2006, at ASEE's Global Conference in Rio de Janeiro, Brazil. Engineering education leaders from around the world had gathered the previous year to explore to possibilities of creating an international organization for engineering education societies. IFEES is proud to be leading the effort in connecting the world's engineering education societies and leveraging its members' collective strengths in order to improve engineering education worldwide. IFEES members represent a diversity not only in cultures but in engineering education interests, from quality assurance to engineering education, from pedagogy to the role of technology in the classroom. IFEES member societies are expanding their global reach, and new relationships and collaborations are created all the time through IFEES' global network.

"With EngineeringCAS, Liaison's extensive institutional knowledge and collective experience helps institutions achieve the shared goal of advancing engineering education, innovation and opportunities around the globe."

- Ramiro Jordan, Ph.D., President, IFEES - Hans Hoyer, Ph.D., Secretary General, IFEES



Recognizing the global need for a world-wide forum of engineering deans and rectors, a group of over 20 leaders of engineering education institutions and corporate partners first met in Rio de Janeiro, Brazil, in October 2006 and in Istanbul, Turkey, in September 2007. Encouraged by IFEES and modeled after the ASEE Engineering Deans Council (EDC), the Global Engineering Deans Council (GEDC) was created in 2008 in Paris. The main goal of the GEDC is to provide engineering deans and rectors with ideas, tools and "best" practices necessary to become innovative leaders of engineering education.

"Since GEDC introduced EngineeringCAS to our international engineering community in 2018, it became clear that EngineeringCAS would soon become the tool of choice for students around the world to learn more about – and apply to – graduate programs in engineering."

- Natacha DaPaola, Ph.D., Former Chair, GEDC - Hans Hoyer, Ph.D., Executive Secretary, GEDC

## Rose-Hulman Institute of Technology Reengineers Its Admissions Process by Sending Paper to the Scrap Heap



Before Rose-Hulman Institute of Technology (RHIT) joined Liaison's EngineeringCAS, application processing and enrollment management were handled through "pencil and paper, literally," recalls Craig G. Downing Ph.D., associate dean of Lifelong Learning and head of the Department of Engineering Management.

Shortly thereafter, RHIT's only remaining hard copies — backup records on students following their admission — were "ripe for the shredder," he said.

EngineeringCAS significantly improves admissions office processes while also allowing engineering institutions to allocate financial and staff resources more efficiently each year. Its platform is the manifestation of one of Liaison's partnerships with over 30 professional associations across academic disciplines. Each of these partnerships has introduced discipline-specific versions of Liaison's Centralized Application Service (CAS<sup>™</sup>), the cloud-based student admissions platform that has helped tens of thousands programs on more than 1,000 campuses revolutionize their application and enrollment processes - at no cost to their institutions.

### Targeted, personalized communications

For applicants, EngineeringCAS offers a single portal that streamlines their process for researching and applying to multiple programs of interest, offers a modern application experience that guides them through the process and provides 24/7 access to real-time application status updates.

For programs and institutions, EngineeringCAS drives awareness of engineering programs through a streamlined application process and communication tools that enable targeted, personalized communications to those interested in a program; decreases decision-making times by providing a processing team to scan transcripts and package application components as an extension of an admissions staff; and provides insight into enrollment trends and performance on a campus through robust analytics and reporting tools.

Indiana-based RHIT had limited experience with an online application before joining EngineeringCAS, but the previous system fell short of Downing's expectations.

"Students would ask for an application, and they would stop by and get one, or we'd mail it out to them," he said. "Then

Craig G. Downing Ph.D., Associate Dean of Lifelong Learning, Head of the Department of Engineering Management. Chair of the EngineeringCAS Advisory Board we transitioned to using an electronic application through our Banner system. That system was a bit clunky because it required some verifications and credentials which an outside student wouldn't have."

RHIT had also lacked the potential insights that its admissions operation could gain from comparative data on previous years.

#### Useful, actionable data

"I did not know any characteristic of my enrollment funnel. I did not know my melt rate. I didn't have a yield strategy. I couldn't tell you what our typical yield was in any particular year," Downing said. "I couldn't give you snapshots on how many students had enrolled at any point in time within the process. I couldn't take a snapshot in December, in January or in February, and then tell anybody."

Adding insult to injury, since Downing is a process engineer by trade, RHIT's leadership all specifically expected him to produce the aforementioned data points.

"They were really looking for me to provide a process that yielded useful, actionable data," he said.

After initially receiving an email about EngineeringCAS from a colleague in the mechanical engineering sector, Downing consulted with leaders at the American Society of Mechanical Engineers (ASME) and the American Society for Engineering Education (ASEE), two of the professional associations which partner with Liaison. He also participated in a webinar about EngineeringCAS.

Today, Downing is not only a user of EngineeringCAS but is also the chair of its advisory board.

"We saw that joining EngineeringCAS was exactly what we needed to do in order to have a more effective system. We can also now see how inefficient our processes were versus what I wanted them to be," he said. Downing also notes that some alternative solutions which RHIT explored at the time weren't capable of building a customized module for what the school needed in its applications. During RHIT's first admissions cycle using EngineeringCAS, Downing witnessed the benefits of a tighter process driven by automation, allowing his team to save days of time.

### Greater transparency and accountability

"I want to drop our metric for turnaround time from 10 to 5 business days," he said. "I think we're doing a disservice not only to the students but also to the process as a whole by holding that data and not making a decision."

Yet saving time is just the start. Downing envisions sweeping systemic change as a result of using a CAS.

"I wanted greater transparency. I wanted greater accountability. I wanted greater information. And I wanted access," he said. "During the summertime, we sometimes get late applications, but often some of our staff — myself included — are on the road or traveling internationally. I don't think that should stop us from being able to do business." Downing also believes that EngineeringCAS will address not only his admissions operation's costs but also its opportunity costs.

#### A focus on yield

"That one-stop, web-enabled cloudbased system was something we did not have in the past," he said. "I don't know how many students we may have lost or how much frustration we may have introduced by waiting for an applicant to physically come to our office to get a file, to then review the file, to then send that file back to us through campus mail."

Looking ahead, Downing said he looks forward to eventually attending the Liaison User Conference in order to "talk with CAS users, administrators and other people in this community to find out what the best practices are, so that when we are capturing data, not only would we have data that we can compare internally, but also information that we can compare to others in the engineering graduate area."

He added, "EngineeringCAS can be used to better understand what my actions should be, and for those actions, what my yield potentially can be."

# **DIVERSIFYING ENGINEERING:** ON CAMPUS AND IN THE WORKFORCE

istorically, engineering in the U.S. has been dominated by white and Asian males. While concerns about this lack of diversity have led to the creation of initiatives dedicated to attracting more women and minorities to STEM programs, these groups remain woefully underrepresented.

To shed light on the different ways innovative engineering education leaders are making strides toward greater diversity, Liaison is now offering a free, on-demand webinar — Diversifying Engineering: On Campus and in the Workforce — featuring three women discussing the challenges and opportunities that lie ahead for their programs.

During this session, Noha El-Ghobashy, vice president for strategic initiatives at the Institute for Transformative Technologies (ITT) and former Executive Director of the Association of Mechanical Engineers (ASME) Stephanie Adams, Ph.D., the first female and first African American dean of UT Dallas, and Rebecca Bates, Ph.D., professor of Computer Science and Integrated Engineering at Minnesota State University Mankato, all agree that increasing diversity in the engineering workforce starts with improving diversity on campuses.

#### Why diversity in engineering matters

Adams pointed out that a limited number of minorities earn Ph.D.s in engineering each year, and that more than half seek employment outside academia. Since these candidates are in demand, they may have multiple job options available. Schools need to be more aggressive and move quickly to recruit faculty members from diverse backgrounds. "There's a real void — we can't use the same old practices to diversify faculty because the population isn't there," Adams said.

Bates encouraged schools to think about creating spaces where people want to stay. "Consider the policies, rewards and training you're offering graduate students who are often teaching undergraduates — they need to understand inherent bias and microaggressions. We have to think about how people are working together," she said. In addition to developing more supportive environments for undergraduate students, Bates said, "we need to create spaces where graduate students could see spending the rest of their lives as a career." "If we're going to design solutions that successfully address problems faced by the over seven billion people living on this earth, we can't have 84% of the engineering workforce represent only two demographic groups. Diverse perspectives are crucial not just in solving problems but in fully understanding them."

Noha El-Ghobashy



To learn more about ways to attract more diverse engineering students to your graduate programs, watch the on-demand webinar, "Diversifying the Engineering Community."

### What Applicants Really Think About EngineeringCAS

Applicants to the 2019-2020 EngineeringCAS cycle recently shared their feedback through a short survey about their experience using the Centralized Application Service (CAS).



**90**%

of applicants said account creation and login was easy or very easy.

**III** Having a common application instead of answering the same question half a dozen times was extremely nice."

# 88%

of applicants say they would recommend applying to programs via EngineeringCAS.

It saves time and effort and reduces the chance of errors in your application."

Applying with EngineeringCAS is way easier than applying to each university separately."

86%

was streamlined.

 It's an easy, standardized system... I wish more schools used this application!"

said the **application process** 

**I** The whole application

process was really smooth

and customer service was

responsive when I had

**81**<sup>%</sup>

of applicants

say applying to

graduate schools

using a common

EngineeringCAS is

easier than applying

to each university

application like

questions."

The top 5 schools that applicants requested join **EngineeringCAS were:** 











Mo need to upload separately and a single place to track. Very good!"

**EngineeringCAS** makes it easier to keep track and be sure everything is under control."

said the **payment process** was easy or very easy.

said **application navigation** was simple and easy to manage.

separately.





engineeringcas.org | #buildabetterclass © 2020 Liaison International