ILLINOIS TECH

Search for the Dean, Armour College of Engineering
Illinois Institute of Technology
Chicago, Illinois

Illinois Institute of Technology (Illinois Tech) seeks an ambitious, dynamic, and forward-thinking leader to serve as the next dean of the Armour College of Engineering. This is an exceptional opportunity to lead a college with a legacy of innovation and impact at Chicago's only technology-focused university. Armour has a rich history of training some of the world's most prominent and impactful influencers and engineers and is dedicated to cultivating talent that drives progress and addresses global challenges. The dean will work closely with leaders across the university's seven colleges and schools and other academic, research, and industrial partners, to develop new unique opportunities for education and research and continue the tradition of innovation and excellence that has been a hallmark of an Illinois Tech education.

Based in the global metropolis of Chicago, Illinois Tech was born to liberate the collective power of difference to advance technology and progress for all. Recently named a 2024 Best College in the U.S. by the Wall Street Journal, Illinois Tech is positioned for dramatic growth and development as it continues to pursue its founding mission to provide access to higher education for students from different backgrounds and to make a difference in the world through technology-oriented education. The Armour College of Engineering is a key player in the mission and future of the university as it educates engineers who will be innovators and entrepreneurs, conducts groundbreaking research, and serves a vital role in the tech industry of the city and region.

Reporting to the provost and senior vice president for academic affairs, the dean will serve as a champion of the college and a leader at the institution. The next dean will leverage partnerships in hands-on education, research, and with local industry; champion the college to external audiences and generate resources for modernization and growth; recruit, develop, and retain excellent faculty and staff; serve as a hub for interdisciplinary partnerships with schools and colleges across Illinois Tech; and champion the advancement of research and scholarship. The dean will lead the college's efforts to collaborate with Chicago Public Schools with the aim of improving STEM education and encourage more students to choose STEM careers.

Illinois Tech has retained Isaacson, Miller, a national executive search firm, to assist in this search. All applications, inquiries, and nominations should be directed, in confidence, to the search firm as indicated at the end of this document.

ILLINOIS INSTITUTE OF TECHNOLOGY

Founded in 1890, Illinois Tech was built on the promise set forth in minister Frank Wakeley Gunsaulus's "Million Dollar Sermon" centered on access, equity, and impact. This guiding mission and purpose—where students, including those underrepresented in technology, could prepare for meaningful roles in a changing industrial society and achieve professional and economic advancement—remains just as relevant today. Illinois Tech is home to a racially and socioeconomically diverse student body, where 40 percent of incoming students are eligible to receive a federal Pell Grant. Illinois Tech's emphasis on social mobility lands it the top spot in Illinois for lifting students from families in the bottom 20 percent of income to the top 20 percent according to Opportunity Insights (formerly the Equality of Opportunity Project). Opportunity Insights also names Illinois Tech No. 3 in the nation for upward mobility among highly selective private colleges. Illinois Tech graduates also enjoy the highest 20-year net return on investment after financial aid of all Illinois private college graduates, according to Payscale. The *New York Times*, *U.S. News & World Report, The Princeton Review, and Fiske Guide to Colleges* name Illinois Tech an educational "Best Value." In September 2023, the Wall Street Journal ranked Illinois Tech in the top 25 on the list of 400 best colleges in America and No. 1 in Illinois.

In 2023-24, Illinois Tech enrolled about 3,000 undergraduate students and more than 5,000 graduate and professional students across seven colleges, with an impressive year-over-year increase of 23 percent. New research awards grew from $33 million in FY 23 to $52 million in FY24. The university's seven colleges include: Armour College of Engineering, Chicago-Kent College of Law, College of Architecture, College of Computing, Institute of Design, Lewis College of Science and Letters, and Stuart School of Business. Illinois Tech has solidified its position as Chicago's only tech-focused university by integrating data and computation into each degree program throughout the university. The university offers traditional bachelor's, master's, and doctoral programs, professional master's programs, dozens of certificate specializations, accelerated master's and dual-degree programs, and short-term executive and professional programs. Illinois Tech is also home to a number of robust entrepreneurship centers, including the Ed Kaplan Family Institute for Innovation and Tech Entrepreneurship. In addition to providing business consulting resources, education around rapid prototyping and enterprise creation, and university-wide commercialization resources, Illinois Tech has incubated some of Chicago's biggest startup success stories due to its technology park and business incubator, as well as its wide-ranging resources and access to top-level tech talent.

Leadership

In August 2021, Rajagopal "Raj" Echambadi became the 10th president of the Illinois Institute of Technology. He received a Bachelor of Science in Mechanical Engineering and a Master's of Business

Administration from Anna University in India and a doctorate in marketing from the University of Houston. Prior to joining Illinois Tech, Echambadi served as the Dunton Family Dean at D'Amore-McKim School of Business at Northeastern University and the Alan J. and Joyce D. Baltz Professor and the senior associate dean of strategic innovation at the Gies College of Business at the University of Illinois at Urbana-Champaign. A driving force behind the University of Illinois's scaled online M.B.A. (iMBA) program, Echambadi has been instrumental in helping to provide increased access to an innovative education for students across the globe. A leading academic research expert in organizational strategic innovation, Echambadi has developed new and forward-looking academic programs designed to empower student success in a dynamic marketplace. During his tenure at Illinois Tech, Echambadi has already strengthened the institution financially and positioned it as an internationally recognized leader in innovation, access, and industry-ready curriculum.

Kenneth T. Christensen serves as the Illinois Institute of Technology's provost and senior vice president for academic affairs. Christensen joined Illinois Tech in November 2020 as the Carol and Ed Kaplan Dean of the Armour College of Engineering and assumed the role of provost in June 2023 after serving as interim provost since July 2022. Christensen has an extraordinary record of academic leadership, and proven successes in innovation, collaboration, and commitment to student success. Christensen helped to launch the Armour Academy for Experiential Learning and Student Success and helped pursue unique hands-on opportunities for students. Under his leadership as provost, Christensen has successfully guided the university through a period of sustained growth and enrollment, the launch of groundbreaking new degree programs, and the establishment of key research and workforce initiatives. Prior to joining Illinois Tech, he was the Viola D. Hank Professor and Department Chair of Aerospace and Mechanical Engineering at the University of Notre Dame and a faculty member at the University of Illinois at Urbana-Champaign for more than 10 years. Christensen received a Bachelor of Science degree in mechanical engineering from New Mexico, a Master's in mechanical engineering from Caltech, and a doctorate in theoretical and applied mechanics from Illinois.

Finances

As of 2024, Illinois Tech's endowment fund was valued at nearly $300 million and in 2022 Illinois Tech launched a historic $1 billion fundraising campaign. The campaign, Power the Difference: Our Campaign for Illinois Tech, is focused on making Illinois Tech's long-term strategic plan a reality by helping the university grow its student body; invest in faculty, facilities, and educational programs; develop and deliver new, world-leading research programs; and serve as the premier technology-focused university in Chicago. The campaign has already raised more than $430 million. Since the Power the Difference campaign began its leadership phase, Illinois Tech has seen the development of cutting-edge spaces, including the Trimble Technology Lab and the Adrian and Lorna Nemcek Lab. The last two years have also seen the creation of eight endowed chairs. Illinois Tech has updated its campus for the future of learning, recently completing a $70 million, three-building housing project incorporating a commitment to environmental sustainability into student learning and living spaces. Prior to this campaign, Illinois Tech

had two of its largest philanthropic years in its history in FY20 and FY21, raising more than $221 million over a two-year period.

The Chicago Difference

Illinois Tech draws on its urban identity, global population, and connectivity with the city of Chicago to unleash the collective power of difference. As the world calls for meaningful action against systemic racial injustice, Illinois Tech's purpose, history, and location put it in a unique position to create a more equitable, just, and sustainable world through technology. Diversity and inclusion are part of the day-to-day experience, and inclusion is the centerpiece of the culture through which Illinois Tech actualizes its commitment to diversity through The Chicago Difference to increase access and representation from underserved communities on Chicago's South and West Sides. This effort aims to embrace and amplify the full potential of students and establish Chicago as the nation's most diverse technology hub.

The Chicago Difference is a personalized, multifaceted scholarship and community transformation program focused on increasing the representation, belonging, retention, and success of students from underserved communities in Chicago. This unique program provides support across the entire student journey: reaching into middle and high school STEM education, delivering mentoring for admissions processes, supporting the transition from high school to college, and offering wraparound support services during college, including an intensive focus on career placement and development. The Chicago Difference aims to nurture the genius in Chicago and keep world-class tech talent local.

ARMOUR COLLEGE OF ENGINEERING

The Armour Institute was founded more than 130 years ago with the goal of providing a technical education that was accessible to all who wished to learn, in a changing industrial society. Its merger in 1940 with the Lewis Institute created the Illinois Institute of Technology. Today, Armour College of Engineering educates approximately 2200 students across five departments, continuing a legacy of innovation and impact that spans from educating the inventor of the cell phone to the head scientist of Amazon's Alexa. Students are trained in the principles of the engineering profession in an interdisciplinary environment that emphasizes hands-on learning, teamwork, and leadership so students are prepared for careers of impact. Armour's programs are designed with this goal in mind. Illinois Tech's unique Elevate program guarantees students access to research, study away, internships, competitions and other enriching experiences that help launch students into great careers. Armour Academy for Experiential Learning and Student Success pairs students with mentors to create a customized educational and career plan.

The college is ranked No. 82 in the US News and World Report list for best undergraduate engineering programs. It includes five departments – Biomedical Engineering, Chemical and Biological Engineering; Civil, Architectural and Environmental Engineering; Electrical and Computer Engineering; and Mechanical, Materials, and Aerospace Engineering – as well as the Industrial Technology and Management program

(INTM). Students enroll across nine ABET-accredited undergraduate majors. Many of the 91 full-time faculty are leaders and members of professional societies, including the National Academy of Engineering, and five faculty have received NSF Career Awards over the past two years.

Strategic vision

The 2023 strategic vision, *Realizing the Armour Renaissance*, evolved from work by a strategic planning committee that consulted faculty, staff, and students to determine the state of the college and to make recommendations for its future. Their report formed the basis for the development of a comprehensive strategic vision. It outlines a general framework for the college to succeed in the changing landscape of engineering education as the engineering discipline enters a new era marked by the fusion of the physical and digital across all engineering domains and endeavors. The strategic vision is intentionally broad rather than prescriptive to allow for innovation and empower the dean to adapt and develop new initiatives and programs to promote experiential learning, establish a highly-collaborative research culture, engage alumni, and develop new invigorating industry partnerships.

Research

The rich scholarly environment at Armour supports research by faculty and students who are advancing fundamental discovery and yielding technological solutions to societal challenges. Research in the college has grown over the past five years as faculty have formed collaborations and pursued more multi-PI grants. A number of the largest and most productive research centers and institutes are affiliated with the college, including:

- **Pritzker Institute of Biomedical Science and Engineering:** This umbrella organization enhances the biomedical science and engineering research activities on the Illinois Tech campus. The Medical Imaging Research Center, the Center for Integrative Neuroscience and Neuroengineering Research, the Engineering Center for Diabetes Research and Education, the Center for the Molecular Study of Condensed Soft Matter, and the Biophysics Collaborative Access Team all operate under the institute. The Pritzker Institute develops and coordinates relationships and programs with traditional science and engineering departments within Illinois Tech, as well as with outside institutions, especially Argonne National Laboratory, Rush University Medical Center, and the University of Chicago.

- **Wanger Institute for Sustainable Energy Research (WISER):** The institute cultivates close collaboration among numerous programs at Illinois Tech with a focus on the development of energy-related interdisciplinary educational and research initiatives and proposals. Current WISER activities involve more than 60 faculty members from throughout the university, spanning engineering, design, architecture, business, psychology, the sciences, and law.

Students

Armour students are resourceful and highly-motivated achievers who compete and succeed in top national and international competitions such as the XPRIZE Rainforest Competition and the EcoCAR EV Challenge. To promote enrollment growth at the undergraduate level, Armour College has developed strategic partnerships and memoranda of understanding with regional community colleges to facilitate the transition of transfer students to Illinois Tech. At the graduate level, the college has focused on new degree programs that meet student and industry demands, including new interdisciplinary degrees at the master's level. The college has also created more accelerated master's degree programs, which give students the option to earn a bachelor's and master's degree in as few as five years.

Armour College and Illinois Tech offer several distinctive programs that enrich the student experience and elevate engineering education. These programs include:

- **Armour Academy for Experiential Learning and Student Success:** This newly created entity is charged with intentionally customizing plans for each student to participate in a broad portfolio of curricular, cocurricular, and extracurricular opportunities that will lead to their individual manifestation of the Armour Engineer. This is accomplished through a team of professional advisors, engineering mentors, and faculty partners who guide each student through the development of their personalized plan and provide the resources necessary for them to realize it.

- **Armour Undergraduate Research Program (Armour R&D):** Armour R&D focuses on educating undergraduate engineering students outside the classroom by providing them with the experiences that allow them to solve problems in industry and society. Armour R&D consists of two programs: Program for Undergraduate Research Education (PURE), which focuses on research, and Mentored Innovation and Development (MIND), which focuses on developing technology based on research. Both programs aim to give students a hands-on experience with research and development.

- **Interprofessional Projects (IPRO) Program:** This signature program at Illinois Tech provides students with the opportunity to research topics of interest as part of coursework in a team-based, interdisciplinary, project-oriented curriculum. Students gain valuable design-thinking, creativity, leadership, and teamwork skills while working alongside fellow students from various academic majors on projects that aim to solve real-world challenges.

THE ROLE OF THE DEAN

Reporting to the provost and senior vice president for academic affairs, the dean is the chief academic and administrative officer of the Armour College of Engineering and is responsible for the strategic, operational, and financial health of the school. The dean oversees a budget of approximately $28 million. Armour College includes five operational staff members, four professional academic advisors and a faculty leadership team that includes two associate deans, and five department chairs.

OPPORTUNITIES AND CHALLENGES FOR THE DEAN

Leverage partnerships across the Illinois Tech community and beyond

As the head of one of the largest academic colleges at Illinois Tech, the dean is a critical leader in building bridges and seeking out collaborations between Armour and other colleges as well as with industry and institutions across the nation and world. The city has become a hub for tech research and Armour can be out in front of partnering on entrepreneurial endeavors in addition to working with industry leaders to modernize the engineering curriculum across the college to produce exceptionally well-prepared graduates. That collaboration should aim to align academic programs with current and future industry, research, and academic institution needs by developing and expanding experiential opportunities, advancing research initiatives, and engaging with the local community through initiatives such as the new Kaplan Family Student Fabrication Center the university is launching as a collaboration with Kaplan Institute and the National Institute for Advanced Manufacturing. While the college has more faculty than any academic unit on campus, its relatively small size and unique technology talent gives it flexibility. It also means that next dean must be opportunistic and strategic to pursue only collaborations that align the college's strengths with university goals and market opportunities.

Execute the strategic vision to raise the profile of the college

The strategic vision of the college – *Realizing the Armour Renaissance* – outlines broad reaching aspirations for Armour that the next Dean will implement in collaboration with the leadership, faculty, and staff. The overarching vision is for Armour to be the leader in fusing the physical and digital in engineering practice, education, and research. The dean will put tangible goals to the vision's ambitions of focusing on experiential learning and student success within a highly collaborative research culture, leading naturally to an increase in alumni engagement and industry partnerships, all done with a commitment to diversity, equity, and inclusion. The strategic vision was intentionally designed to be a broad strategic framework rather than a prescriptive plan. The next dean, in collaboration with faculty and university leadership, will develop the path to success in the ever-changing environment of engineering education, making changes as needed and pursuing and testing strategies to advance the college and university.

Champion the college to external audiences and generate resources for modernization and growth

The dean will engage a broad range of external audiences, including alumni, donors, government officials, and industry partners to inspire their engagement and investment in the college. Serving as the lead ambassador for the college, the dean will champion the unique opportunities at Armour and elevate its external reputation and profile. Resources are needed to hire faculty and staff, upgrade facilities and infrastructure, and bring engineering education to the cutting edge. The dean will need to be an eager fundraiser and compelling storyteller to generate resources externally and internally and continue to strategically grow enrollment, particularly at the professional master's level.

Grow research

Research expenditures in the college have grown in recent years from approximately $11.5 million in FY 2020 to more than $15.6 million in FY 2024. While Armour has a long history of excellence in research, the focus was typically on small single-PI grants. That has begun to change and the college has won awards from major projects, such as the Midwest Hydrogen Hub, where Illinois Tech serves as a leader in large scale workforce development. The university is also one of 18 institutions selected for the NSF Accelerating Research Translational Awards to empower institutions to speed and scale translational research. Illinois Tech this year became the first academic institution to lease space at Fulton Labs innovation hub in Chicago. The new space provides state-of-the-art wet lab space for researchers in biomedical and biological engineering. These examples signal a change in mindset in how the university and the college approach research. To sustain and accelerate growth and impact, the dean must build out and improve its research structure to create a modern ecosystem of shared labs and facilities that encourages collaboration and allows for flexibility in the pursuit of new research at scale. Through these efforts, the strategic recruitment of faculty, and the development of reward and accountability systems to support and encourage research, the dean will create a self-sustaining momentum that will drive continued research growth and increase Armour's impact on the region and the world.

Recruit, develop, and retain excellent faculty and staff

Armour College of Engineering is built on the success and commitment of its faculty and staff. As many other institutions of higher education have experienced, Armour has seen attrition of those ranks in recent years. The next dean will need to work collaboratively with the department chairs to strategically recruit and retain a diverse and talented group of people, building a culture that enables them to thrive and develop in their careers and contribute to the advancement of scholarship, research, and education. The dean will be recruiting in a competitive environment and must creatively develop and utilize resources, including joint hires with other academic units as well as Argonne National Laboratory, which has an established program for joint hires with the university. The next dean will be a collaborative leader who will work closely with department chairs, the provost, and leaders in other colleges, to ensure faculty have the tools they need to do their best work and to recruit top faculty of all ranks who are excited to help build on the existing commitment to scholarly excellence and student success.

Ensure that Armour College offers cutting-edge academic programs that attract and retain students

The next dean will ensure that the college takes a proactive approach to identifying and recruiting high-potential students with innovative and cutting-edge programs of study. The dean will promote opportunities to refresh the curriculum through the development of interdisciplinary and experiential learning across the curriculum while encouraging new pedagogical approaches, methods of delivery, and the development of courses that prepare students to succeed in their careers. The next dean will have an array of resources to pursue these opportunities, including Illinois Tech's new Tech+ degree initiative that

led to the creation of a variety of degrees, including the B.S. in Business and Engineering. On a global level, Armour is leading a joint degree graduate program in Artificial Intelligence with NIT Trichy in India.

The Armour curriculum includes some of the most sought-after and competitive programs at the university and the dean will work with faculty to identify obstacles to student success and bottlenecks to advancement, developing and articulating a strategy to maximize student engagement and preparation and ensuring the quality of the student experience. The dean will pay close attention to student success, focusing on improving graduation rates and factors such as enrollment strategy, financial support for students, retention, degree efficiency, and time to graduation, in addition to offering excellent and relevant academic degree programs that appeal to students and employers. As student enrollment increases, the next dean will work closely with faculty and departments to facilitate this growth by integrating new labs, exploring new education methods, and implementing other strategies.

QUALIFICATIONS AND EXPERIENCE

The successful candidate will possess most, if not all, of the following qualifications or experience:

- A deep commitment to Illinois Tech's mission and core values of student success and access, community engagement, diversity and excellence, and the development of faculty and staff;
- A passion for technological innovation and holistic, technical, and professional education;
- A commitment to educational access and social mobility that transforms students' lives;
- The ability to work well with other deans and university leaders in the pursuit of achieving both college and university goals;
- Strong communication skills and the ability to articulate a compelling message to diverse audiences and inspire alignment and partnership with both internal and external constituencies;
- Strong executive ability, the willingness to be entrepreneurial and the courage to accept challenges, take educated risks, and decisively pursue and implement strategies effectively;
- A keen sense of the trends and developments, as well as a vision for the future of, engineering and related fields within the rapidly evolving higher ed landscape;
- A record of achievement in research and the ability to inspire and energize faculty to pursue and achieve research excellence through individual, collaborative, and/or interdisciplinary teams;
- A track record of supporting and exploring innovative interdisciplinary opportunities in education and research;

- A demonstrated commitment to building a strong learning environment for students that stresses academic quality, experiential learning, community engagement, technology, global perspectives and success;

- Experience developing new revenue streams to maintain and advance excellence;

- A demonstrated commitment to recruiting, developing, and retaining a talented and diverse faculty and supporting their academic and professional aspirations;

- An energetic, entrepreneurial, and collaborative leadership style that inspires faculty, students, and staff and builds pride in and commitment to the Armour College of Engineering;

- The ability to be a passionate and tireless external advocate for the school within and outside the university, market to a variety of traditional and non-traditional students, and differentiate the college in a competitive market;

- Strong financial management skills, including the ability to manage college finances, communicate the relationships between academic priorities and budgeting, and transparently align strategic initiatives with long-term budget planning;

- A compassionate, inspiring leader who possesses emotional intelligence and can foster an environment that values respect, collegiality, and open communication;

- An academic or professional record of success that would support an appointment to the rank of tenured professor in the Armour College of Engineering.

TO APPLY

Illinois Institute of Technology has retained Isaacson, Miller, a national executive search firm, to assist in this search. All inquiries, nominations, and applications, should be directed electronically and in confidence to:

Greg Esposito (he/him), Partner
Melissa DePretto Behan (she/her), Senior Associate
Isaacson, Miller
https://www.imsearch.com/open-searches/illinois-institute-technology-armour-college-engineering/dean

Illinois Institute of Technology is an EEO/AA/Title VI/Title IX/Section 504/ADA/ADEA employer committed to enhancing equity, inclusion and diversity within its community. It actively seeks applications from all

individuals regardless of race, color, sex, marital status, religion, creed, national origin, disability, age, military or veteran status, sexual orientation, gender identity and expression, and any other protected class. All qualified applicants will receive equal consideration for employment.