Position and Candidate Specification

Duke University
Pratt School of Engineering

Vinik Dean of the Pratt School of Engineering

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DUKE UNIVERSITY

Duke University was created in 1924 by James Buchanan Duke as a memorial to his father, Washington Duke. It is considered one of the top research universities in the world and is regularly ranked among the top ten academic institutions in the United States.

Duke University’s campus in Durham, North Carolina, encompasses nearly 9,000 acres and is home to 6,500 undergraduates, over 9,000 graduate students, and more than 1,600 tenured and tenure-track faculty. The Duke University Hospital is considered one of the best hospitals in the country.

More information about Duke may be found at: https://duke.edu/

PRATT SCHOOL OF ENGINEERING

Duke’s Pratt School of Engineering is a vibrant teaching and research institution dedicated to training the next generation of leaders and pursuing research in high-impact fields to explore the frontiers of engineering and develop solutions to the world’s greatest challenges. The mission of the Pratt School of Engineering is to provide a rigorous engineering education for students, enabling them to lead productive, rewarding, and ethical lives for the betterment of society.

Pratt ranks among the top 15 U.S. engineering schools in research productivity (Academic Analytics) and is ninth among the top 25 U.S. graduate engineering schools in research funding per faculty member (U.S. News & World Report). External research funding has doubled over the last decade, reaching nearly $100 million in new awards in FY20. Major externally funded research centers focus on quantum computing; water, sanitation, and hygiene; materials genomics; metamaterials; photonics; secure communications protocols; and biomolecular and tissue engineering. Pratt benefits from extensive collaborations with researchers in each of Duke’s graduate and professional schools—especially the highly regarded Duke University School of Medicine—and numerous ties with Duke Kunshan University, a world-class liberal arts and sciences university in Jiangsu province, China. Pratt is also taking a leading role in the University’s Duke Science and Technology (DST) initiative, and the coming years will provide numerous opportunities for campus, national, and international leadership.

In addition to the co-located resources of Duke University and Duke University Medical Center, the School leverages opportunities provided by connections to North Carolina’s famed Research Triangle Park (RTP), recognized internationally as a center for cutting-edge research and development and home to more than 300 companies and 65,000 workers.

Community

The School includes 1,250 undergraduates, 770 master’s students, and 570 Ph.D. students. There are nearly 300 staff who guide and support the entire Pratt community. Pratt faculty are dedicated to teaching, research, and service and are positioned in the highest ranks of their chosen areas of expertise.
**Structure**

The Pratt School’s academic programs are structured around four departments and a non-departmental institute: the Department of Biomedical Engineering, the Department of Civil and Environmental Engineering, the Department of Electrical and Computer Engineering, the Thomas Lord Department of Mechanical Engineering and Materials Science, and the Institute for Enterprise Engineering, launching in the Spring of 2021 to support master’s degree programs in AI for Product Development, Cybersecurity, FinTech, and Engineering Management, as well as educational programs for working professionals. Three minors (Energy Engineering, Machine Learning & AI, and ECE) and five certificates are also available for undergraduates.

Distinctive initiatives at the School include the First-Year Design course; programs centered on ethics, purpose and meaning; the National Academy of Engineering Grand Challenge Scholars Program; and the Pratt Research Fellows Program, with more than 60 percent of undergraduates participating in research projects with faculty mentors. In addition, the Duke Engineering Entrepreneurship (EngEn) initiative offers a range of courses, programs, and guidance for both undergraduate and graduate students as well as faculty seeking to develop and deliver technology-based innovations to society.

**Fundraising**

The Duke Engineering Development team has an annual fund goal of almost $4 million and routinely outperforms participation goals, with nearly 40 percent of alumni donating. The eight-member team aims to raise a total of $30 million each year through the annual fund campaign, major and principal gifts, and corporate support efforts. The average total raised over the past five years is approximately $35 million per year. The School has traditionally been well-supported, including a $261 million distribution from the Lord Foundation in November, 2019 to support engineering education and research and undergraduate financial aid.

Duke’s next campaign, currently in the silent phase, will include a strategic focus on raising money for science and technology as part of DST; School priorities in research, teaching, and service will also be addressed.

**Diversity, Equity, Inclusion, and Community (DEIC)**

DEIC is a core value of the School and Duke University, and both visible leadership at the Dean’s level and grassroots activity are necessary for successful DEIC endeavors. Pratt has established a DEIC structure that works closely with the Dean, including the Pratt Director of DEI, the Associate Dean of Faculty Affairs and Community Engagement, and the Pratt DEIC Committee, comprised of more than 35 members of the Pratt community. The School’s DEIC structure seeks to ensure strategic and measurable actions and goals to promote and provide leadership in DEIC. Duke Engineering intentionally strives to cultivate opportunities for diverse research teams comprising faculty, students, and staff; central to building diverse teams is promoting the inclusion of women and persons from traditionally underrepresented groups.

**Faculty (Fall 2020)**

Tenure and Tenure-Track: 123

- BME: 36
- CEE: 18
- ECE: 39
- MEMS: 30
Other Regular Rank: 47
- BME: 13
- CEE: 3
- ECE: 19
- MEMS: 12

Total Part-Time & Adjunct: 77
- BME: 8
- CEE: 17
- ECE: 16
- MEMS: 4
- Engineering Master’s Programs: 24
- Dean’s Office: 8

Space and Facilities

Duke Engineering occupies 389,000 net square feet (NSF) of space (including approximately 208,000 NSF of research space) in 15 buildings. In addition to its primary facilities on campus—including the new Wilkinson Building, which opened for classes in January 2021—the school manages a startup incubator and research lab space in the Chesterfield Building in downtown Durham.

Budget
- $90 million annual operating budget
- $100 million annual sponsored research budget

Research Support
- $96.8 million in new awards in FY20—a 30% increase over the past five years
- Annual expenditures by sponsor:

![Pie chart showing research expenditures by sponsor.]

Total: $87.679M
Strategic Visioning

In anticipation of the School’s centennial in 2039, the “Pratt 2039” steering committee convened in 2020 to conduct an aspirational visioning exercise and identify strategic priorities to realize the School’s mission of positively impacting society in the decades ahead. With extensive input from faculty, staff, students, and external advisors, the committee identified the following eight key priority areas, with recommendations for short- and long-term activities in each; implementation planning is ongoing:

▪ Best-in-class educational experience
▪ High-impact research
▪ Diversity, equity and inclusion
▪ Outstanding place to live and work
▪ Industry connections and investments
▪ Meaningful alumni relationships
▪ Global impact and branding
▪ The physical and virtual plant

For more details on the Pratt School of Engineering, see:  [http://pratt.duke.edu/about](http://pratt.duke.edu/about)
Reporting to Duke’s Provost, the Vinik Dean of the Pratt School of Engineering (Dean) is the academic, administrative, and community leader of the School and an important member of the University’s leadership team. The Dean is responsible to the Provost for the following specific activities:

- **Strategic Planning**: ongoing strategic planning for the Pratt School that provides a long-range vision, specific strategies, and detailed administrative and fiscal provisions to ensure the excellence of the Pratt School faculty and its research and teaching programs. In exercising this planning leadership, the Dean works closely with the University’s senior officers and with other deans on interdisciplinary hiring and research and teaching programs.

- **Faculty Appointments**: recruitment, appointment, reappointment, promotion, and tenure of faculty in the Pratt School. The Dean works through the established appointment, promotion, and tenure process of the University and is responsible for its integrity. The Dean works with the faculty in the context of approved long-range plans to develop annual recruiting plans with the approval of the Provost. The Dean is responsible for ensuring a diverse, high-quality faculty and providing an inclusive environment for all faculty, students, and staff.

- **Budgetary and Administrative Oversight**: all aspects of the Pratt School’s budget consistent with the University’s Responsibility Center Management (RCM) budget system. The Dean is responsible for working with the faculty to bring in sponsored funding to support research activities and graduate training. The Dean is also responsible for all budgetary and administrative aspects of Pratt’s Master of Engineering and Master of Engineering Management degrees and works closely and collaboratively with the Dean of the Graduate School in developing the budget for MS and PhD programs. The other principal areas of administrative responsibility include the allocation of academic facilities, stewardship of the physical plant, and planning for future academic facilities’ needs; non-faculty staffing decisions within the context of University-wide policies and procedures; and the initiation and development of collaborative teaching and research programs with other schools, institutes, and centers of the University and other institutions of higher education.

- **Stewardship and Development**: representing the University to important constituents, including alumni and various national and international groups. The Dean takes an active role in fundraising and manages the Pratt School’s development team. The Dean is also responsible for alumni relations and stewardship with the Pratt Board of Visitors and the Duke Board of Trustees. The Dean has primary responsibility for articulating the development needs of the School in conjunction with the long-range plans of the School and the University. The Dean works collegially with the Provost, President, and other deans in planning university-wide fundraising priorities and goals and cooperates with University development staff in executing those plans.
Industry Outreach and Technology Transfer: managing the Pratt School’s interactions with major national corporations as well as the high technology industry. Such interactions are for the purposes of developing stronger industry involvement in the School’s research, developing employment opportunities for Pratt’s graduates, and establishing long-term development opportunities for creating endowed chairs and investing in the School’s success. The Dean is also responsible for working with the University’s Office of Licensing and Ventures to advance the transfer of technology and other intellectual property developed in the School for the betterment of society and the development of commercial products.

KEY RELATIONSHIPS

Reports to
Provost, Duke University

Direct reports
Senior Associate Dean, Development & Alumni Affairs
Senior Associate Dean, Education & Learning Development
Senior Associate Dean, Finance & Operations
Associate Dean, Entrepreneurship
Associate Dean, Faculty Affairs & Community Engagement
Associate Dean, Ph.D. Education
Associate Dean, Research & Infrastructure
 Associate Dean and Director of Development
Senior Executive Director, Communications & Marketing
Chair, Department of Biomechanical Engineering
Chair, Department of Civil & Environmental Engineering
Chair, Department of Electrical & Computer Engineering
Chair, Thomas Lord Department of Mechanical Engineering and Materials Science

Other key relationships
President, Duke University
Other University Deans and Senior Leaders
Board of Visitors
IDEAL EXPERIENCE

The Dean must be a respected leader with a track record of strong scholarship, an energetic and conscientious administrator broadly familiar with issues in higher education, a strong advocate for teaching and research missions, and a preeminent University citizen. Although diverse academic backgrounds will be considered, ideal candidates will have demonstrated experience and success in the following areas:

Serving in an administrative role in a university setting (e.g., institute director, department chair, associate dean, vice provost).

Leading research, teaching, and service missions, with enthusiasm and appreciation for both undergraduate and graduate students.

Recruiting accomplished, high-potential, diverse faculty.

Developing financial support for research.

Establishing and enhancing ties with other schools and institutions, including academic health care enterprises, in the U.S. and internationally.

Achievement in research and scholarship, meeting the requirements for obtaining tenure at the full professor level at Duke University.

CRITICAL COMPETENCIES FOR SUCCESS

Strategic Vision

Continue to lead committed and diverse constituencies to ever-higher levels of achievement and contribute to the overall excellence of Pratt and Duke by:

▪ Serving as a strong advocate for the University’s research mission, strengthening the University’s capacity to address global challenges (e.g., through the Duke Science and Technology initiative) and providing a transformative educational experience;

▪ Articulating an expansive vision of Pratt’s future and advocating for School ideas and programs as necessary components to addressing societal issues of the modern world;

▪ Supporting and enhancing the School’s teaching mission to undergraduate, master’s, and PhD students;

▪ Balancing advocacy of the Pratt School with participation in University-wide programs and initiatives; and

▪ Enhancing the student experience in undergraduate and graduate programs through management of available and secured resources.

Inclusive Leadership

In an institution that values shared governance and community, build consensus and support for strategic and tactical initiatives by:
Serving as an intellectual leader among the faculty and displaying the highest aspirations in developing and fulfilling the University’s research mission;

- Supporting innovations in engineering education, including experiential and hands-on learning;
- Building effective relationships with key constituency groups and clearly communicating institutional priorities, including goals, risks, and costs;
- Supporting diversity, equity, inclusion, and community initiatives and goals through visible, vocal, proactive leadership;
- Demonstrating respect for everyone, listening for understanding, cultivating curiosity, exhibiting cultural self-awareness, demonstrating empathy, and self-reflecting on personal biases and competencies; and
- Understanding faculty governance, the importance of engagement with Pratt faculty, and the process of leading new initiatives and change initiatives at Pratt and Duke (e.g., Pratt 2039).

**Institutional Representation**

As Pratt’s key spokesperson and chief advocate, the Dean must build relationships with a range of University and external constituencies by:

- Serving as a committed University citizen and a willing collaborator with fellow faculty, Deans, the Provost, and the President in promoting University research and education priorities;
- Energetically representing the School and University to alumni and other internal and external constituencies in support of development activities in partnership with the development team, Pratt faculty, and Duke University leaders;
- Creatively and energetically exploring traditional, emerging, and alternative funding sources; and
- Exploring commercialization opportunities, enhancing partnerships with industry and other for-profit partners, and encouraging the entrepreneurial instincts and interests of faculty and students.

**ABOUT THE PROCESS**

Duke University has retained Spencer Stuart to assist in this recruitment. To nominate an individual, express personal interest in the position, or communicate comments, questions, or suggestions to the search committee, please feel free to use the confidential search mailbox prattdean@spencerstuart.com.