

## Dean, MIT School of Engineering

The MIT School of Engineering's mission is to educate the next generation of engineering leaders, to create new knowledge, and to serve society. We are dedicated to creating an environment that fosters the advancement of knowledge, education of students, and addressing today's most pressing challenges. With the Institute's values in mind, we spearhead projects that enhance life and learning, from attracting the most talented engineers to welcoming people from all backgrounds on campus, leading the next revolution in engineering education, and offering varied avenues that inspire students.

The largest of the Institute's five schools, the MIT School of Engineering comprises roughly 71 percent of undergraduate majors (2475/3482 non-first-years) and 47 percent of graduate students (3416/7344), with the Department of Electrical Engineering and Computer Science jointly managed by the School of Engineering and MIT Schwarzman College of Computing. Just over a third of MIT's faculty are in the School (37%, 396/1080), and they generate more than half of the sponsored research at the Institute (53%, \$468M/\$879M).

The total volume of research expenditures of faculty and staff affiliated with a School of Engineering academic department in FY24 was \$468 million.

## Accomplishments

### School Events

The School of Engineering hosted or co-hosted a number of events throughout the academic year and welcomed several high-profile dignitaries on campus. These included:

- MIT Ignite Event
- MIT GenAI Week
- Sam Altman Conversation
- NATO
- House Permanent Select Committee on Intelligence (HPSCI) visit
- Morris Chang Lecture
- Jelena Begovic, Minister of Science for Serbia

### Diversity, Equity, and Inclusion Initiatives

To further develop a collaborative, Institute-wide approach to recruiting underrepresented prospective students, the GradRecruitment Working Group was launched in the 2023-2024 academic year, co-led by the School of Engineering and the Office of Graduate Education (OGE). This group, comprising administrators, faculty, and students, meets monthly to share resources, centralize prospective student data, and develop innovative recruitment strategies. Key achievements of the working group include:

- **MIT's Celebration of the 50th Anniversary of the National Society of Black Engineers (NSBE) Conference:** This event featured a four-booth MIT Cluster sponsored by MITES, OGE, SoE, AeroAstro, EECS, NSE, MechE, and LGO. The team also hosted a networking mixer for MIT/MSRP/MITES alumni and MIT community members, attracting over 125 attendees.
- **Expansion of the School of Engineering Virtual Fair:** In 2022, the School of Engineering piloted a Virtual Graduate Fair aimed at increasing access. This event has now expanded to include 28 MIT departments across all five schools and colleges.

The **Program for Exemplary Mentoring**, formerly the University Center for Exemplary Mentoring, was institutionalized in the School of Engineering in AY2023 and has expanded to all departments in the school with the exception of Aeronautics and Astronautics. Now entering its 10th year, this program supports a total of 100 graduate scholars across the 8 departments.

The inaugural cohort of the **Postdoctoral Program for Engineering Excellence** completed their two-year fellowship. The program seeks to create environments where innovation thrives and every scholar, regardless of background, is empowered to reach their full potential and contribute to transformative advancements in engineering. At the conclusion of the two-year program, every scholar has found a new appointment:

- 50% tenure track positions (8 scholars)
- 12.5% research positions at national labs (2 scholars)
- 12.5% industry and startup (2 scholars)
- 25% continuing at MIT in a new research appointment (4 scholars)

## Administrative Initiatives

### New Procedures, Processes, and Policies

- The SoE Dean’s Office launched a new QuickBase application to facilitate the processing of staff and visitor offer requests, promotions, salary changes, staff conflict of interest reviews, search plans, and more. The application has automated elements of the process and streamlines communications between the Dean’s Office and our Departments, MIT Compensation, the International Scholars Office, and Senior Conflict of Interest Officer Rupinder Grewal. It has been well received among administrators across SoE.
- The SoE Dean’s Office, in partnership with MIT Compensation, has launched a “Compensation 101” presentation to demystify how compensation is determined at MIT for hires, promotions, and more. The presentation was rolled out to staff in MechE, ChemE, and IMES, with a future presentation planned for AeroAstro in October.
- The Staff Advice and Implementation Committee (SAIC) launched several programs in 2024:
  - The Diversity, Equity, and Inclusion subcommittee partnered with the office of the ICEO to develop and offer guidance for planning inclusive and accessible events.
  - The Staff Social Events and Wellness subcommittee developed a one-page social onboarding guide for managers to use with new hires. They also administered the Staff Events and Activities grants program, which awarded new grants to a number of programs supporting staff connection and wellness, including a Postdoctoral Running Club, iHQ Community Values Program, SoE Facilities Coordinators’ Lunch, Crafters’ Circle, Meditation Program, and more.
  - The Professional Development subcommittee launched a staff career panel for School of Engineering staff interested in student-facing careers at MIT.
- In FY24, key members of the SoE Dean’s Office administrative staff developed and delivered a new onboarding program for its newly appointed department heads and Engineering Council members. Recognizing that these leaders would be involved in a number of unfamiliar administrative activities and processes related to their new roles, the Dean’s Office offered monthly information sessions to help new department heads feel informed and supported in their work. These monthly sessions covered information and provided resources on topics such as faculty promotions, the annual budget process, salary reviews, chair appointments, communications, etc.

## Finances and Funding

The School of Engineering brought in \$62.6M in new gifts and pledges in FY2024. Below is a snapshot of some of the most notable fundraising activities this year:

- Raised more than \$7.8M in named fellowships across the School.
- Raised nearly \$6M to support research in the life sciences, including ovarian cancer and Alzheimer’s Disease, and a new seed fund for entrepreneurship in the life sciences.

## Personnel Information

### Leadership Changes & Appointments

The following faculty members were either appointed to leadership positions within the School of Engineering or announced that they were stepping down from their leadership position:

- **AeroAstro** – Prof. Dan Hastings stepped down as department head (DH). Prof. Steven Barrett was appointed as interim DH (7/1/23 – 10/31/23), then he became DH (not interim), effective 11/1/23. He then stepped down 4/30/2024, and Prof. Julie Shah was appointed as the new DH, effective 5/1/24.
- **BE** – Prof. Angela Belcher stepped down as DH, effective 7/31/23. Prof. Christopher Voigt stepped up as DH, effective 8/1/23.
- **ChemE** – Prof. Paula Hammond stepped down as DH, effective 12/31/23, and was appointed Vice Provost for Faculty, effective 1/1/24. Prof. Kristala Prather was appointed as DH, effective 1/1/24.
- **DMSE** – Prof. Jeff Grossman stepped down as DH, effective 7/31/23. Prof. Caroline Ross was appointed interim DH, effective 8/1/23. She stepped down as interim DH, effective 6/30/24. Prof. Polina Anikeeva was appointed as DH, effective 7/1/24.
- **MechE** – Prof. Pierre Lermusiaux and Prof. Rohit Karnik stepped down as interim co-DHs, effective 6/30/23. Prof. Anastasios “John” Hart was appointed as new DH, effective 7/1/23. Prof. Ellen Roche was appointed as new Associate DH, effective 8/1/23.
- **SoE Dean’s Office** – Prof. Maria Yang was promoted from Associate Dean to Deputy Dean, effective 8/1/23. Prof. Elsa Olivetti was appointed SoE Associate Dean, effective 9/1/23.

- **Deshpande Center** – Prof. Devavrat Shah stepped down as Director of the Deshpande Center, effective 6/30/23. Prof. Angela Koehler was appointed as Director of the Deshpande Center, effective 7/1/23.
- **Materials Research Laboratory (MRL)** – Prof. Carl Thompson (DMSE) stepped down as Director of MRL, effective 8/31/23. Prof. Lionel “Kim” Kimerling (DMSE) appointed to serve as interim Director of MRL, effective 9/1/23.
- **MIT Energy Initiative (MITEI)** – Prof. Bob Armstrong (ChemE) stepped down as Director of MITEI, effective 6/30/23. Prof. William Green (ChemE) was appointed as Director of MITEI, effective 4/1/24.
- **Plasma Science and Fusion Center (PSFC)** – Prof. Dennis Whyte (NSE) stepped down as Director of PSFC, effective 12/31/23. Prof. Nuno Gomes Loureiro (NSE) was appointed as Director of PSFC, effective 5/1/24.

## Faculty Chairs

The following faculty were appointed to chairs and professorships by the School of Engineering:

- **Caroline Uhler** has been appointed as the Viterbi Chair in the Department of Electrical Engineering and Computer Science.
- **Vinod Vaikuntanathan** has been appointed as the Ford Foundation Professor of Engineering in the Department of Electrical Engineering and Computer Science.

## Promotions

### Full Professor

The following engineering faculty were promoted to full professor:

- Paul Blainey (BE)
- Fikile Bruschet (ChemE)
- Cullen Buie (MechE)
- Dirk Englund (EECS)
- Heather Kulik (ChemE)
- Vivienne Sze (EECS)

- Amos Winter (MechE)

## **Associate Professor with Tenure**

The following engineering faculty were promoted to associate professor with tenure:

- Adam Belay (EECS)
- Irmgard Bischofberger (MechE)
- Matteo Bucci (NSE)
- Luca Carlone (AeroAstro)
- Manya Ghobadi (EECS)
- Zach Hartwig (NSE)
- Admir Masic (CEE)
- Stefanie Mueller (EECS)
- Kouroush Shirvan (NSE)
- Julian Shun (EECS)
- Zach Smith (ChemE)
- Gio Traverso (MechE)

## **Associate Professor without Tenure**

The following engineering faculty were promoted to associate professor without tenure:

- Pulkit Agrawal (EECS)
- Josephine Carstensen (CEE)
- Yufeng (Kevin) Chen (EECS)
- Connor Coley (ChemE)
- Zachary Cordero (AeroAstro)
- Sili Deng (MechE)
- Chuchu Fan (AeroAstro)
- Marzyeh Ghassemi (EECS)
- Carmen Guerra-Garcia (AeroAstro)
- Anders Hansen (BE)
- Kaiming He (EECS)
- Adrian Lozano-Duran (AeroAstro)
- Farnaz Niroui (EECS)
- Lonnie Petersen (AeroAstro)
- Wim VanRees (MechE)
- Cathy Wu (CEE)

- Mengjia Yan (EECS)

## **Senior Research Scientist**

The following researcher was promoted to senior research scientist.

- Joe Coughlin (CTL)
- Ming Dao (DMSE)

## **Professor of the Practice**

The following individuals were appointed to professor of the practice:

- Eric Evans (AeroAstro)
- Curtis Smith (NSE)

## **Associate Professor of the Practice**

The following individuals were appointed to associate professor of the practice:

- Javit Drake (ChemE)

## **Retirements: Transition to Professor Post Tenure and Emeritus**

The following engineering faculty members announced their transition to professor post tenure or emeritus/a this year:

- A. Agarwal (EECS)
- R. Berwick (EECS)
- V. Chan (EECS)
- A. Hatton (ChemE)
- I. Hutchinson (NSE)
- K. Jensen (ChemE)
- T. Patera (MechE)
- M. Schmidt (EECS)

## **New Faculty Hires/Appointments**

- Stephen Bates (EECS)

- Abigail Bodner (EECS)
- Andreea Bobu '17 (AeroAstro)
- Suraj Cheema (DMSE, EECS)
- Samantha Coday (EECS)
- Bailey Flanigan (EECS)
- Mitchell Gordon (EECS)
- Kaiming He (EECS)
- Anna Huang SM '08 (EECS)
- Yael Kalai PhD '06 (EECS)
- Sendhil Mullainathan (EECS)
- Alex Rives (EECS)
- Sungho Shin (ChemE)
- Jessica Stark (BE)
- Thomas John "T.J." Wallin (DMSE)
- Gioele Zardini (CEE)

## Dean's Office Staff Appointments, Promotions, Departures, and Retirements

- **Dominique Altarejos** was promoted to Fellowship and Awards Administrator on 8/7/2023.
- **Sue Liang** was promoted to HR Operations and Data Administrator on 8/9/2023.
- **Sharon Wheeler** was hired as a Donor Relations Officer on 09/27/2023.
- **Mary Ellen Sinkus** moved to an Assistant Provost for Finance role in the Provost's Office on 11/13/2023.
- **Damion Mannings** was hired as a Program Coordinator for the Program for Exemplary Mentoring on 1/08/2024.
- **Neza Sheikh** was hired as an Administrative Assistant 2 on 1/09/2024.
- **Macall Zimmerman** was promoted to Assistant Dean for Finance and Administration on 2/21/2024.
- **Greg Soloviev** departed as an Administrative Assistant 2 and moved to a Facilities Manager role in the Office of Innovation on 2/26/2024.
- **Jiyoo Jye** departed as Communications Officer for NEET on 3/30/2024.



- **Ryan Higgins** departed as Development Associate on 5/14/2024.
- **Wafa Ahmed** was hired as an Administrative Assistant 2 on 5/20/2024.
- **Julie Kukharenko** was appointed to Director of Administration and Finance on 06/03/2024.
- **Conor McArdle** was hired as a Digital Communications Specialist on 6/17/2024.
- **Jordan Silva** was hired as a Communications Coordinator on 6/21/2024.

## Educational Activities

### Undergraduate Enrollment

Department	Number Enrolled
Aeronautics and Astronautics (AeroAstro)	148
Biological Engineering (BE)	140
Chemical Engineering (ChemE)	122
Civil and Environmental Engineering (CEE)	31
Electrical Engineering and Computer Science (EECS)	1557
Materials Science and Engineering (DMSE)	56
Mechanical Engineering (MechE)	394
Nuclear Science and Engineering (NSE)	27
<b>School of Engineering</b>	<b>2475</b>

### Graduate Programs

Department	Number Enrolled
Aeronautics and Astronautics (AeroAstro)	280
Biological Engineering (BE)	142
Chemical Engineering (ChemE)	257
Civil and Environmental Engineering (CEE)	112
Electrical Engineering and Computer Science (EECS)	1169
Materials Science and Engineering (DMSE)	193

Mechanical Engineering (MechE)	476
Nuclear Science and Engineering (NSE)	134
Institute of Medical Engineering and Science (IMES)* <i>*counted using student population in Health Sciences and Technology (HST) program</i>	304
Non-Department Associated Programs <i>(Advanced Study Program, Program in Computational and Systems Biology, Engineering Management, Supply Chain Management Program)</i>	349
<b>School of Engineering</b>	<b>3416</b>

## Graduate Fellowships

In AY24, there were 116 stewarded fellowships in total across 10 fellowship-dedicated philanthropic sources. The 116 unique fellowships awardees study in every discipline in the School of Engineering, as well as non-engineering Schools such as Sloan and the Schwarzman College of Computing. These graduate fellowships have supported 96 different labs on campus and impacted research in 7 areas.

## Postdoctoral Programs

### MIT-Novo Nordisk Artificial Intelligence Postdoctoral Fellows Program (MIT-Novo)

#### Program Enrollment

Cohort 1: 8 postdocs

### MIT Postdoctoral Fellowship Program for Engineering Excellence (PFPFEE)

#### Program Enrollment

Cohort 1: 15 postdocs

Cohort 2: 13 postdocs

## Strategic Initiatives

## MIT Climate and Sustainability Consortium (MCSC)

- The MCSC welcomed its newest member company, Amazon. Amazon brings an important perspective from the technology space to the MCSC, collaborating with other member companies across industries to vastly accelerate the implementation of large-scale, real-world solutions aimed at addressing climate and sustainability challenges.
- The MCSC released 11 [publications](#).
- The MCSC released 2 tools: [geospatial mapping tool](#) to support strategic decision-making for decarbonizing trucking fleets and [6cycle](#), a game that explores material passports and sustainable supply chains.
- **Education:** Through the [MCSC Scholars Program](#), the MCSC supported 20 undergraduate students as they conducted yearlong, interdisciplinary climate and sustainability research projects. This program supported 5,600+ hours of student research in 2023. Through MIT UROP, the MCSC also funded 75 total undergraduate research opportunities in 2023.
- **Postdoctoral Impact Fellows:** The MCSC funded 10 postdoctoral Impact Fellows, with a range of expertise that supports MCSC's impact pathways.

## MIT Faculty Founder Initiative

- The *2023-2024 MIT-Royalty Pharma Prize Competition* launched in September 2023. In this cohort, the Faculty Founder Initiative is currently supporting **12** female faculty members in human health from MIT and Brown University through stipend money, best in class mentorship, workshops and networking opportunities.
- A collaboration with MIT Sloan was started to both match faculty members with Sloan business school students and place faculty members in a 3-day intensive Sloan Negotiation Analytics course.
- The Selection Committee selected 3 winners, who received \$450K in dilution-free prize money.
- Participants of the Prize Competition have included [Ellen Roche](#) (co-founder of Spheric Bio, which is developing a minimally invasive heart implant aimed at preventing strokes), [Anne Carpenter](#) (co-founder of SyzOnc, which uses systems-level/AI approaches for cancer therapeutics) and [Jessica Stark](#) (co-founder of Valora Therapeutics, which uses antibodies to modulate the immune system).
- The cumulative impact to date has included:
  - 21 faculty members supported in commercialization
  - 11 have raised dilutive and non-dilutive funding outside of the program
  - 9 start-ups
- A new website was launched.

## MIT-Takeda Program

- After four years, the MIT-Takeda Program has wrapped up and has thus far produced **16 publications, 1 patent, and 22 projects**.
- There were **44 student fellows** through the program.
- There were **80+ MIT students and faculty** collaborating with **125+ Takeda researchers**.

## Entrepreneurship, Leadership, and Innovation Activities

The Engineering Entrepreneurship Certificate Program is a collaboration between MIT SoE, Sloan, and the Martin Trust Center for Entrepreneurship. Its goal is to catalyze entrepreneurship and create leaders across MIT.

Program participants are mentored by **Entrepreneurs in Residence (EIRs)** who advise students on their coursework and ensure students are on track to receive their certificates and reach their goals. The program's requirements have students take the StartMIT course, take 12 units in entrepreneurship courses plus another 6 units in leadership courses, and participate in co- or extra-curricular entrepreneurship activities. To date, there have been 5 events provided by the Martin Trust Center exclusively for program participants.

In 2024, 86 students enrolled in the program (▲57 from 2023) and 7 students graduated with the certificate (▲6 from 2023).

## Gordon-MIT Engineering Leadership Program (GEL)

### Enrollment Numbers:

- 107 GELs earned Program Completion Certificates in May 2024.
- Received 250 total applications (225 early) – the most in program history.

## Daniel J. Riccio Graduate Engineering Leadership Program (GradEL)

### Enrollment Numbers:

- Educated around 200 graduate students combined between courses and workshops.
- 43 graduate students became members of the alum and earned a Graduate Certificate in Technical Leadership.

## **Undergraduate Practice Opportunities Program (UPOP)**

### **Enrollment Numbers:**

- 288 students enrolled in UPOP and 105 completed all three required courses.

## **MIT Communications Lab**

### **Enrollment Numbers:**

- 1,499 appointments
- 720 unique clients