2025 MIT Research and Development Conference

November 18, 2025 - November 19, 2025

Day One | Plenary

8:00 AM

Registration and Light Breakfast

9:00 AM

Welcome and Introduction Gayathri Srinivasan Executive Director, MIT Corporate Relations



Gayathri Srinivasan Executive Director MIT Corporate Relations

Dr. Srinivasan is a distinguished scientist who received her PhD in Microbiology from The Ohio State University in 2004, where she contributed to the discovery of the 22nd amino acid, Pyrrolysine (2002). She first came to MIT as an NIH Postdoctoral Fellow in Prof. Tom Rajbhandary's lab, where her research focused on understanding protein synthesis mechanisms in Archaea.

Dr. Srinivasan subsequently moved into the business development and technology licensing space, serving in MIT's Technology Licensing Office, where she helped commercialize technologies in medical devices and alternative energies. She then moved to UMass Medical School's Office of Technology Management in 2009 and to Emory University in Atlanta in 2014 as the Director of Public and Private Partnerships for the Woodruff Health Sciences Center. In 2019, Dr. Srinivasan joined Emory's Office of Corporate Relations as Executive Director, and in 2021, she led the Office of Corporate and Foundation Relations.

Day Two | Track 1 | Entrepreneurship

Introduction

Day Two | Track 2 | Power Hungry World - The Future of Sustainable Energy

Global electricity demand is projected to nearly double by 2050, driven by the rapid electrification of buildings, transportation, and manufacturing. Compounding this pressure is the exponential growth of Al. While Al offers transformative potential across industries, it is also emerging as a significant energy consumer. Data centers, the digital engines powering Al, have more than doubled their electricity consumption since 2018 and now account for 4.4% of global demand. In the U.S., they are expected to consume up to 12% of total electricity by 2028.

This track will explore how the world can meet rising energy needs through the rapid expansion of sustainable energy production. From fusion and next-generation nuclear to renewables, grid-scale storage, decentralized systems, and forward-looking policies, we will examine the innovations and frameworks critical to building a resilient, low-carbon energy future. Addressing this challenge will require a bold vision, accelerated technological advancement, and unprecedented global collaboration.

Introduction

Day Two | Track 3 | Innovation and Impact in the New Space Era

This session explores the transformative dynamics of the New Space era, where commercial innovation, rapid development cycles, and expanded access to space are redefining what's possible. Presenters will highlight emerging technologies, novel mission approaches, and cross-sector collaborations driving this shift. Topics may include advances in Earth observation and sensing, the proliferation of small satellite platforms, and research in space physiology to support human spaceflight. Whether technological, scientific, or entrepreneurial, these developments exemplify how New Space is reshaping the space ecosystem and opening new frontiers for exploration, application, and impact.

Introduction

Day Two | Track 4 | Intelligence Unleashed: Scaling and Securing Enterprises of the Future

The next wave of innovation is being shaped by AI systems that don't just respond; they act. From agentic AI that collaborates and makes decisions autonomously to decentralized architectures that push intelligence to the edge, MIT researchers are leading the charge. They are reimagining how organizations secure, interpret, and operationalize data.

This track brings together thought leaders from across MIT to explore the strategic, organizational, and human implications of AI at scale. Topics will include quantum-safe infrastructure, explainable AI, cyber-physical resilience, agent-based platforms, and the role of trust, transparency, and ethics in intelligent systems.

For enterprises navigating an era defined by autonomy, agility, and risk, this track connects frontier research with real-world impact.

Introduction

Day Two | Track 5 | Frontiers in Advanced Materials: From Molecular Design to Functional Systems

The future of materials science lies in the seamless integration of molecular precision, functional performance, and nanoscale understanding. This session brings together leading MIT researchers whose work spans the full spectrum of advanced materials innovation—from the bottom-up design of molecular architectures to the real-world deployment of materials and the tools that reveal their behavior at the atomic scale.

Introduction

Day Two | Track 6 | Engineering Life Sciences: Interdisciplinary Pathways from Concept to Impact

Life sciences are no longer confined to the realm of biology—they have evolved into a multidisciplinary frontier. This session examines the dynamic intersection of biology, engineering, and computational science, where bold ideas give rise to transformative innovation. By integrating AI, advanced technologies, and foundational biological research, the session will highlight how cross-disciplinary collaboration accelerates the path from scientific discovery to real-world application at MIT. Emphasizing the translation of visionary research into impactful solutions, this track invites participants to reimagine what becomes possible when disciplines converge to shape the future.

Introduction

Day Two | Optional Conference Campus Tours

On day two, after lunch at 12:40 PM, join the ILP for a unique opportunity to explore MIT through concurrent tours, each providing an in-depth look at the institute's innovation ecosystem. Sign-up boards will be available at the registration desk starting in the morning.

1:15 PM Attendees to gather at the ILP registration desk for departure from the Marriott

1:30 PM - 2:30 PM MIT Campus Walking Tour (15 people max)

Take a guided tour of our dynamic campus and experience firsthand how MIT is making a better world. From cutting edge research to innovation, from world-renowned architecture to rich community life, the MIT campus is a treasure to explore. MIT is also the heart of the vibrant innovation district of Kendall Square, the most innovative square mile in the world – come see how academics, entrepreneurs, corporations and non-profits make it all happen.

1:30 PM - 2:30 PM MIT Media Lab (15 people max)

1:30 PM - 2:30 PM MIT Nuclear Reactor Laboratory (15 people max)