MISTI

MIT INTERNATIONAL SCIENCE AND TECHNOLOGY INITIATIVES

Griselda V. Gómez
MIT-Mexico/Colombia Managing Director

5o Día de la Investigación, Fundación Valle de Lili

MISSION

The mission of MIT is to **advance knowledge** and educate students in science, technology, and other areas of scholarship that will best serve the nation and **the world in the 21st century**. MIT is dedicated to providing its students with an education that combines rigorous academic study and the excitement of **discovery**.

MIT's Ranking in 2019

MIT has been named the world's top university by the QS World University Rankings and number 1 in 11 subjects:

- Chemistry
- Computer Science and Information Systems
- Chemical Engineering
- Civil and Structural Engineering
- Electrical and Electronic Engineering
- Mechanical, Aeronautical and Manufacturing Engineering
- Linguistics
- Materials Science; Mathematics; Physics and Astronomy Statistics and Operational Research.

MIT placed second in six subject areas

- Accounting and Finance
- Architecture/Built Environment
- Biological Sciences
- Earth and Marine Sciences
- Economics and Econometrics
- Environmental Sciences

MENS ET MANUS

Private institution founded in 1861

1,021 faculty
11,840 employees

___

91 Nobel
Prize winners

11,319
students

___

3,220 international
students

MIT SCHOOLS

School of Architecture and Planning

- Architecture
- Media Arts and Sciences
- Urban Studies and Planning

School of Engineering

- Aeronautics and Astronautics
- Biological Engineering
- Chemical Engineering
- Civil and Environmental Engineering
- Electrical Engineering and Computer Science
- Engineering Systems
- Materials Science and Engineering
- Mechanical Engineering
- Nuclear Science and Engineering
- Institute for Medical Engineering and Science

School of Science

- Biology
- Brain and Cognitive Sciences
- Chemistry
- Earth, Atmospheric, and Planetary Sciences
- Mathematics
- Physics

School of Humanities, Arts and Social Sciences

- Anthropology
- Comparative Media Studies/Writing
- Economics
- Global Studies and Languages
- History
- Humanities
- Linguistics and Philosophy
- Literature
- Music and Theater Arts
- Political Science
- Science, Technology and Society

MIT Sloan School of Management

- Management

MIT IDEAS, INVENTIONS AND INNOVATORS THAT SHAPE OUR WORLD

The World Wide Web, invented by MIT Professor Tim Berners-Lee

The Human Genome Project, for which MIT's Whitehead Institute sequenced the most genes

Transistor radio, co-invented by William Shockley '36

Email, invented by Ray Tomlinson '65

One Laptop Per Child, developed by Nicholas Negroponte and the MIT Media Lab in 2005

Radar detection/navigation (perfected at MIT during WWII)

The theory of cosmic inflation, developed by Professor Alan Guth '69

Nuclear fission, pioneered by alumnus and Professor Manson Benedict

Wind tunnels (invented at MIT in 1896)

MIT OpenCourseWare provides free access to course materials to anyone, anywhere

BIG NAMES FROM MIT

DAVA NEWMAN
Deputy Administrator of NASA

MIT Professor of Aero Astro
and Engineering Systems

BUZZ ALDRIN
Apollo 11 astronaut

Doctor of Science in Aero
Astro from MIT '63

KOFI ANNAN
Former UN Secretary General

MS from MIT Sloan School
of Management '72

ENTREPRENEURSHIP AT MIT

The GDP of a nation formed by businesses started by MIT graduates would be **$2 trillion.** This would rank them as 10th in the world (equivalent to Italy, the UK, and Brazil).

25,800 active companies have been started by MIT alumni

Intel, Bose, Koch Industries, Texas Instruments, Dropbox & Campbell Soup founded by MIT Alums

3.3 million are employed by companies started by MIT alumni

MISSION

MISTI supports MIT's educational mission by creating **hands-on, international learning experiences** for MIT students that are related to their course of study. We bolster the Institute's research mission by **promoting collaborations between MIT faculty members and their counterparts abroad**. We advance MIT's outreach efforts through our **partnerships with foreign companies, universities and research institutions**, especially those that serve as hosts for our students and faculty.

MISTI PROGRAMS

MISTI is comprised of twenty-five international programs:

MIT-AFRICA Initiatives
MIT-Arab World
MIT-Belgium
MIT-Brazil
MIT-Chile
MIT-China
MIT-France
MIT-Germany

MIT-India
MIT-Israel
MIT-Italy
MIT-Japan
MIT-Korea
MIT-MEET
MIT-Mexico
MIT-Netherlands
MIT PeaceTech Initiative

MIT-Portugal
MIT-Russia
MIT-Singapore
MIT-Spain
MIT-Switzerland
MIT-UK
Global Startup Labs
Global Teaching Labs

WHAT WE DO

Create future global leaders

MISTI's pioneering internship program matches MIT students with projects in companies and labs around the world. Through our teaching programs, students learn how to communicate with international peers by teaching STEM and entrepreneurship in foreign high schools and universities.

Promote faculty international research collaboration

Through the MISTI Global Seed Funds program, we provide grants for MIT faculty to develop research collaborations with their counterparts in foreign institutions. The program comprises a general fund for projects in any country and several funds for projects in specific countries.

Connect international partners with MIT

MISTI is a vital nucleus of international activity at MIT. Through our many programs for students and faculty, we facilitate connections between MIT and other global leaders in research, industry and innovation.

STUDENT PROGRAMS

MISTI STUDENTS

MISTI provides MIT students with the chance to gain real-life work experience in leading companies and labs around the world. Each year 990 students are matched with international **internship**, **research**, **entrepreneurial** and **teaching opportunities**.

THE VALUE OF A MISTI STUDENT

- Pre-selected from the top tier of MIT students (4.0 minimum GPA)
- Recommended by their professors
- Prepared in the language and culture of the host country
- Instructed on living and working in the host country
- Skilled in the lab/work setting thanks to previous internships, UROPs and other hands-on MIT opportunities
- Ready to hit the ground running

MISTI — MIT INTERNATIONAL SCIENCE AND TECHNOLOGY INITIATIVES

MIiT (🌎)

great ideas change the world
MIT SCHOOL OF HUMANITIES
ARTS AND SOCIAL SCIENCES

INTERNSHIPS

MISTI's award-winning international internship program provides a one-of-a-kind, world-class experience for MIT students: the opportunity to gain real-life work experience in leading companies and labs around the world.

KEY FACTS:

- Internships abroad in **companies, non-profits and research labs**
- **Student expenses are covered**, including stipend and airfare
- Internships last **3 to 12 months**
- **MISTI is open to all MIT students:** undergraduates, graduate students and graduating students
- There are opportunities in **every MIT major**
- Most students go during the **summer**, but internships are **available year-round**

GLOBAL TEACHING LABS

Students are matched with **foreign high school hosts** throughout the country for three weeks in January. At each location students prepare tailored courses on **science, technology, engineering and math (STEM) subjects** that complement the school's curriculum and highlight MIT's hands-on approach to education.

KEY FACTS:

- GTL takes place over MIT's January session **IAP;** all other programs occur in the summer.
- Students apply and are selected in the **fall.**
- Participants attend **MISTI Prep and Training sessions** on teaching methodologies and the culture and society of the host country.
- There are **no foreign language requirements** for participation in the program

GLOBAL STARTUP LABS

MISTI GSL promotes development in emerging regions by **cultivating young technology entrepreneurs**. GSL develops curriculum materials, software technologies, platforms, and networks that enable **undergraduate students in emerging regions to innovate** in the area of information and communication technologies (ICTs).

GSL partners with universities in emerging regions and organizes advanced courses taught by MIT students/instructors. The courses focus on **mobile and Internet technologies**, and are structured so that our students are awakened to the commercial possibilities of the technologies.

Components of the course include detailed **technical curriculum, funded business competitions, guest lectures, and networking events** all to help our students develop and realize their ideas.

FACULTY COLLABORATIONS

MISTI GLOBAL SEED FUNDS

MISTI Global Seed Funds (GSF) support MIT's global engagement by promoting and supporting early-stage **collaborations** between **MIT researchers** and their **counterparts around the globe.**

Many of the joint projects we fund lead to additional grant awards and the development of **valuable long-term relationships** between international researchers and MIT faculty and students.
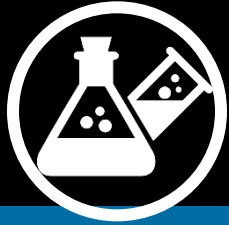
AVAILABLE FUNDS 2019

AFRICA
• MIT-Africa - Imperial College London Seed Fund

BELGIUM
• MIT-Belgium - Université catholique de Louvain Seed Fund
• MIT-KU Leuven Fund

BRAZIL
• MIT-Brazil Lemann Seed Fund for Collaborative Projects
• MIT-Brazil TVML Seed Fund

CHILE
• MIT-Chile - Universidad de Santiago de Chile Seed fund
• MIT-Chile - Universidad Adolfo Ibanez Fund

CHINA
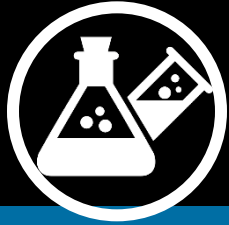• MIT Greater China Fund for Innovation

COLOMBIA
• MIT-Colombia Universidad de los Andes

FRANCE
• MIT-France Seed Fund

GERMANY
• MIT-Germany Lockheed Martin Seed Fund
• MIT-Germany - University of Stuttgart Seed Fund
• MIT-Germany FAU Seed Fund
• MIT-Germany University of Regensberg Seed Fund

AVAILABLE FUNDS 2019

INDIA
• MIT-IIT Ropar Seed Fund

ISRAEL
• MIT-Israel Zuckerman STEM Fund
• MIT-Israel Lockheed Martin Seed Fund
• The MIT-Israel – Ben-Gurion University of the
Negev Seed Fund

ITALY
• Roberto Rocca Project
• MIT-FVG (Friuli Venezia Giulia) Seed Fund

JAPAN
• ULVAC-Hayashi MISTI Seed Fund

KOREA
• MIT-Korea - KAIST Seed Fund

PERU
• MIT-Peru UTEC Seed Fund

SPAIN
• MIT-Spain Universidad Politécnica de Madrid
Seed Fund
• MIT-Spain INDITEX Sustainability Seed Fund
• MIT-Spain "la Caixa" Foundation Seed Fund

UK
• MIT-Africa - Imperial College London Seed
Fund

MISTI MIT INTERNATIONAL SCIENCE
AND TECHNOLOGY INITIATIVES

MIT ( )

great ideas
change the world
MIT SCHOOL OF HUMANITIES
ARTS AND SOCIAL SCIENCES

HOW IT WORKS

MISTI GSF comprises a general fund for projects in any country and several country funds with their own requirements. **Most funds provide a maximum of $30,000 per proposal**.

Proposals must be jointly submitted by the MIT and international applicants. Applicants are **encouraged to involve MIT and international undergraduate and graduate students** in their projects. Funds are intended to be used during the initial phase of developing an international collaboration.

The deadline for each grant cycle is in September; applicants are informed of the results in early December. Funds are available for use over the next 18 months.

HOW IT WORKS

2020 Call for proposals will open in May until mid September

Research at MIT

http://web.mit.edu/research/

http://web.mit.edu/research/centers-labs-programs/

https://ki.mit.edu/

SELECTION PROCESS

Grantees are selected through a 2-tiered process.

1. SCIENTIFIC COMMITTEE

importance of the scientific problem or project and its contribution to the field

2. SELECTION BOARD

- balanced exchange
- complementarity
- newness
- sustainability

Project Examples

Colombia

CULTIVATING HEALTH ENTREPRENEURSHIP IN COLOMBIA
A collaboration between:
Leo Anthony Celi, Principal Research Scientist, Institute for Medical Engineering and Science
Alon Dagan, Research Affiliate, Institute for Medical Engineering and Science
David Bigio, Universidad de los Andes
Carolina Salguero, Universidad de los Andes
Juan Sebastian Osorio Valencia, Bimedco S.A.

MEXICO
MAPPING COHERENT STRUCTURES WITH LIGHTWEIGHT UNMANNED AERIAL SYSTEMS
A collaboration between:
Sai Ravela, Principal Research Scientist, Earth, Atmospheric and Planetary Sciences
Joaquin Salas, Instituto Politécnico Nacional

MISTI MIT INTERNATIONAL SCIENCE AND TECHNOLOGY INITIATIVES

MIT (🌐)

great ideas
change the world
MIT SCHOOL OF HUMANITIES
ARTS AND SOCIAL SCIENCES

Project Examples

Chile

MIT-Chile 2013- "Numerical Modeling and Other Engineering Tools for the Ambulatory Assessment of Vocal Function."
Sponsor and amount: NIDCD Clinical Research Center (P50)**: USD$2,397,233**

Israel

Catalyzed by an MIT-Israel Seed Fund grant, the creation of a symbiotic system that combines renewable energy systems, hydropower, and desalination has the potential to launch a renaissance in the Middle East

MISTI

¡GRACIAS!

Griselda V. Gomez
MIT-Mexico/Colombia Managing Director
gomezg@mit.edu

MISTI   MIT INTERNATIONAL SCIENCE
AND TECHNOLOGY INITIATIVES

great ideas
change the world
MIT SCHOOL OF HUMANITIES
ARTS AND SOCIAL SCIENCES