

MISTI MIT International Science and Technology Initiatives

**International Education at MIT:
Hands-on Learning in a
Global Laboratory**



Why MISTI?



To internationalize MIT education and research

- With the globalization of science, technology, and economy, we need to prepare our students for leadership in a new world
- Important centers of innovation are opening outside our own society
- To educate our students to access these advances in science and technology, we need to prepare them for lives and careers that span national boundaries

How?



- Intensive professional internships in companies, research labs, and universities around the world
- Study-abroad opportunities at select universities around the world
- Workshops, conferences, symposia, and lectures for our students and faculty with international corporations, government agencies, and NGOs
- Support of MIT faculty for cross-border research collaboration
- Facilitation of research opportunities for international students and postdoctoral visitors at MIT

MISTI International Internships



- Since 1983, MISTI has placed more than 1500 students into companies and labs from Beijing to Berlin
- All programs are open to undergraduates, graduates, and recent alumni
- MISTI places students from all areas of study
- Training in the language and culture of the host country precedes stay abroad
- All expenses paid

MISTI Country Programs



Year	Japan	China	Germany	India	Italy	France	Mexico	MISTI
1983-94	318							318
1995	36	2						38
1996	42	22						64
1997	37	28	22					87
1998	25	48	37	6				116
1999	32	35	33	15	5			120
2000	28	48	38	17	5			136
2001	17	57	36	14	8	28		160
2002	28	44	36	0*	8	31		147
2003	35	15**	40	6	13	49		158
2004	33	35	25	16	9	52	1	170
Total	631	334	267	74	48	160	1	1515

* India 2002: No students sent due to travel restrictions

** China 2003: Travel restrictions due to SARS

MISTI Internships

Student Characteristics



Profiles:

60 %	Undergraduates
30 %	Graduates
10 %	Recent Graduates
60%	School of Engineering
20 %	School of Science
10 %	School of Management
5 %	School of Humanities, Arts and Social Sciences
5%	School of Architecture and Planning
70%	Summer internships
30%	Six to twelve months internships
10 – 15%	Permanent hires

MISTI:

Hands-On learning combined with in-depth academic preparation



- Language and literature subjects in Chinese, French, German, Italian, Spanish, and Japanese
- Subjects on society, politics, and culture
 - “Raw Fish”, “Issues in Contemporary Germany”, “Iron Rice Bowl”, “Mole”, and “Communicating Across Cultures”
 - Speaker series
- Intern training courses
 - Retreats and spring training seminars

International Outreach



- MIT Japan: Long established training programs for American executives
- MIT China: MISTI China Forum, Singapore Forum, China Educational Technology Initiative (CETI), MIT-China-OCW Project at Qinghai University
- MIT India: NSF funded program for graduate students
- MIT Germany: Workshops for MIT students, faculty, and German corporate partners on topics such as “Solutions for Mobility” (DaimlerChrysler, Siemens) or “Nanotechnology in the Chemical Industry” (BASF)

International Outreach



- MIT Italy: Organizes conferences with MIT faculty and Italian sponsors on Italian high tech industries; works with consortium of Italian universities and promotes MIT-Politecnico faculty collaborations
- MIT France: MIT-France Endowment for collaborative research, visiting faculty program bringing guests from France to MIT; strong study abroad component
- MIT Mexico: Placement of Mexican researchers in MIT Labs through CONACYT grant, Teach Abroad opportunities

Over 100 corporate partners worldwide including



- **Japan**

- Mitsubishi Heavy Industries
- NTT DoCoMo
- Panasonic
- SONY
- Tokyo University

- **China**

- Beijing University
- IBM
- Intel
- Microsoft
- Tsinghua University

- **Germany**

- Bosch
- BMW
- DaimlerChrysler
- Infineon Technologies
- Lufthansa
- Siemens

- **France**

- Air Liquide
- Delphi Automotive Systems
- France Telecom R&D
- INRIA
- Renault

Support for MISTI Programs



FOUNDATIONS

- Ayukawa Foundation
- Fondazione A. and E. Rocca
- Fondazione Tronchetti Provera
- Freeman Foundation
- Max Kade Foundation
- National Science Foundation
- Starr Foundation

GOVERNMENTAL SUPPORT

- EduFrance Agency
- French Ministry of Foreign Affairs
- French Ministry of Education
- German Federal Ministry for Research, Education and Technology
- German Academic Exchange Service
- CONACYT

CORPORATE SPONSORS

- MIT Japan Consortium
- MIT Germany Consortium
- MIT France Consortium
- MIT Mexico Consortium

INDIVIDUAL DONORS

- Anthony and Rosina Sun
- Chu Fund
- Mr. Raymond Kwok
- Mexican Alumni

MISTI: A community of internationally aware students



- **MISTI Ambassador Program**

Creating a core group of students interested in international issues; the student-voice of MISTI at MIT



2002 Sun Fellows with Nobel Prize Winner Wolfgang Ketterle

- **Sun Fellowship Awards**

- **Annual retreat on Thompson Island**



New Projects at MISTI



- **MISTI - OpenCourseWare Projects in China**

New forms of engagement for our students and faculty with colleagues in China



- **MISTI – I-labs cooperation in Africa**

Helping to connect African universities to virtual labs to facilitate in-depth learning experiences

University of Dar es Salaam, Tanzania

Makerere University, Uganda

Obafemi Awolowo University, Nigeria

Feasibility study for iLabs in sub-Saharan Africa

Carnegie Corporation of New York

MIT MASSACHUSETTS INSTITUTE OF TECHNOLOGY

University of Dar es Salaam

MAKERERE UNIVERSITY

Obafemi Awolowo University

Goals:

- ✦ To assess the potential of iLabs to enrich university education in developing countries.
- ✦ To identify the barriers that prevent the realization of the potential of iLabs in developing countries.

MISTI- I-labs Cooperation



- **Tasks for MISTI in the I-Labs-Africa Project**
 - Arrange internship opportunities for MIT students with partners
 - Train students before their departure to Africa
 - Work with partners in Africa on accommodation and supervision of MIT students
 - Host guests from African partners during their stay at MIT

MISTI- I-labs Cooperation



- Arrange internship opportunities for MIT students with partners
 - Planned number of students:
 - Teams of 2 students to each of our three partner universities = about 6 students per year
 - Students and their work projects will be selected by Prof. Alamo in close cooperation with hosts.
 - Students can be either advanced undergraduate or graduate students
 - Students will travel either during January or for about 8 weeks during the summer
 - Students will receive travel support from MISTI

MISTI- I-labs Cooperation



- Train students before their departure to Africa
 - MISTI has arranged a special tutor for those students who will be participating in I-labs project
 - Students can enroll in MIT course “Independent International Research Project” and may receive course credit for their work

MISTI- I-labs Cooperation



- Work with partners in Africa on accommodation and supervision of MIT students
 - MISTI needs help from African partners regarding:
 - Accommodation: Can students be housed on campus or close to university?
 - Safety issues: Are students in safe environment or properly instructed to avoid certain unsafe locations?
 - Health issues: MISTI will make sure that all students receive proper medical preparation
 - Mentorship: MISTI wants to work closely with African partners to ensure that each student team has a mentor/supervisor at respective university

MISTI- I-labs Cooperation



- Host guests from African partners during their stay at MIT
 - Help guests with finding accommodation during their stay in Boston
 - Arrange contact to students and faculty while visit MIT
 - Arrange a guided tour to see MIT campus and Boston
 - Arrange meetings with prospective MIT students who will go as interns to Africa
 - Informal dinner with students from the “Africa Information Technology Initiative”

MISTI

MIT International Science and
Technology Initiatives

Hands-on Learning in a Global Laboratory

for more information:

<http://web.mit.edu/misti/www/>

