

MIT International Science & Technology Initiatives (MISTI-China)



子曰：學而時習之，不亦說乎？
有朋自遠方來，不亦樂乎？

“To study and to review it in timely fashion, is that not, indeed, a pleasure? says the Sage; to have friends come from afar, is that not also a delight?”

- *Analects of Confucius*

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Letter from MISTI-China Managing Director

To MIT Students & MISTI-China Alum, 大家好!



Over the past 17 years, the MIT MISTI China Program has prepared nearly 800 of you to work on projects throughout Mainland China, Hong Kong, and Taiwan. Now, as the program expands in new directions and doubles, perhaps even soon to triple, in size; I find myself wondering about many of you: are you still pursuing your China or global interests? Would you be interested again in participating in the program? The program offers exciting opportunities that can lead to a lifetime of involvement with China regardless of where you currently are and what you are doing. MISTI-China has always been committed to initiating opportunities and taking action, and there is no better time or simpler way to get involved than here and now.

To Faculty & Prospective Business Partners, 欢迎!

With this newsletter, we aim to facilitate the collaboration of faculty, alum, and program partners in our activities at MIT and in China. In the pages that follow, we have attempted to capture the energy and spirit of MISTI-China as it has evolved over the past 17 years. We work with students and faculty in numerous activities on the MIT campus and with nearly 100 multinational and local host institutions spanning Dalian to Kunming; Xining to Taipei. Become part of our accomplishments! Our students, faculty, and China partners have shared their first-hand experiences with me; and here, I share excerpts of the many success stories and photos with you. We hope this newsletter will interest you and even inspire you to participate; and help us explore new ways to expand the already very active MIT-中国 ecosystem.

Sean Gilbert

Sean Gilbert, Managing Director
MIT MISTI China program
china@mit.edu | (617) 253-5068

Letter from MISTI-China Managing Director



CETI Pilot OCW Team at Qinghai Lake: Peter Jeziorek, Yiqun Bai, Sean Gilbert, Michelle Tiu, Salvatore Scaturro, Siqi Chen.

I've been given this tremendous opportunity by MISTI to work on MIT China activities these past 12 years; and have very much enjoyed working with hundreds of students, faculty, and industry partners on exciting projects across Greater China. I enjoy discussions on MISTI-China's plans and hosting events in China with MISTI-China's Faculty Director, Ed Steinfeld; and in the early years talking about developing the program with Julian Wheatley while on walkabouts with him in Kunming, Dalian, Shanghai, and Xining. I'm indebted to Pat Gercik who hired me away from challenging river and mountain slope engineering projects in Taiwan for a more expanded role with Asia and America based in Cambridge. In addition to working with a great group of MISTI colleagues, I'm very fortunate to participate in MIT Greater China Strategy Working Group meetings, China Forum activities; and with the MIT-EECS International Committee on its China and global initiatives.

The MIT Office of Global Education & Development has been very helpful in increasing MISTI-China's student participation through the generous Li & Fung Foundation grant; and I am ever appreciative of the support and friendship of Tong Chen, Jin Zhang, Min-min Liang and everyone else connected to MIT's Chinese language program. A lifetime of China prospects begins with intensive language study. I would also like to thank the MIT-Chinese Students & Scholars Association (MIT-CSSA) for their enthusiastic support of MISTI-China's activities all these years and for their energy and organization in hosting key China events on campus.

For several years I have wanted to produce a newsletter to document MISTI-China's wide range of projects and reach out better to the increasing numbers of program alum, institutional partners, and friends. Time slipped by until now. I'm very grateful to Ye Yao '11/ MISTI-China Fung Scholar and Fung Language Scholarship recipient, who worked expertly and painstakingly on all aspects of the newsletter—editing, writing, designing, and organizing. Ye has been terrific at identifying key content and narrowing down passages, helping to bring organization and purpose to what was an amorphous accumulation of program memories.

Sponsorships: None of these activities would be possible without our generous sponsors:

Banco Santander
Dr. Ge Yao Chu
Freeman Foundation
Li & Fung Foundation
National Science Foundation
Mr. Norman Lau Kee
Starr Foundation

Sean Gilbert, Managing Director
MIT MISTI China program
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Q&A with Sean Gilbert

Interview by Ye Yao

Q: Who is MISTI China for?

A: Whether it is students (all courses of study are welcome), faculty, or the general public, MISTI China extends possibilities to everyone. On the other side of the world, we work closely with our partners in China, Hong Kong, and Taiwan (collectively, “Greater China”) to organize student internships.

Q: What has MISTI China accomplished?

A: Since 1995, we have culturally trained and placed 800 MIT students as interns in labs, companies, universities, and high schools in China, Hong Kong, and Taiwan. MIT faculty and students can now also work together on early stage research projects with Chinese partners (see section on “MIT Greater China Fund for Innovation”). Through the MIT China Forum, MISTI-China helps bring together Boston area professionals with students and faculty for events on current China topics.

Q: Who are your partners?

A: Potentially anyone committed to long-term collaboration possibilities in China. We work with a wide range of multinational and local companies and 15-20 universities in China, Hong Kong, and Taiwan. (Please see a sample list in the “Appendix”)

Q: Where can students go in China?

A: Just as there is more to the United States than Boston and New York, there is a lot more to China than just Beijing and Shanghai. Our engagements include Beijing, Shanghai, Hong Kong, Taipei, Dalian, Hangzhou, Hefei, Wuhan, Fuzhou, Xi’an, Chengdu, Yulin, Kunming, Xining, and ZhuZhou. The expansion beyond large east coast cities results from student drive and initiative, much of it from CETI students (see “CETI” section).

Q: What are some of the eligibility requirements? For instance, do applicants have to speak Chinese fluently?

A: No, applicants are not expected to speak fluent Chinese at the time of admission. To be eligible, students are required to (1) take four semesters of university level Chinese or the equivalent for individual internships, (2) take at least one course on China, and (3) attend MISTI-China’s spring meetings, where we provide cultural orientation and logistical preparations.

Q: I hear a lot about CETI. Is this a separate program from MISTI China?

A: No, CETI is not a separate program; it is a separate initiative within MISTI China. CETI is our category of “team teaching internships” under the MISTI-China program.

Q&A with Sean Gilbert

(continued)

Q: Can you explain this MIT-China ecosystem?

A: The MIT Greater China “ecosystem,” through email lists and word of mouth, channels traffic flow between MIT courses on China and the Chinese language and in-China learning opportunities through MISTI and other China initiatives on campus. There is also another key element to this ecosystem: the MIT-China Forum, which hosts China topics that draw interested MIT students, faculty, and members of the Boston business community.

Q: I heard that MISTI-China news has reached the U.S. government as well?

A: From time to time we receive inquiries from the U.S. State Department on our projects when U.S. government leaders schedule visits to China. A lot of our program headlines come from our CETI students (the “team teaching internships”). (Please see more below in the section labeled “Part II. MIT-CETI Team Internships”).

Q: What are some key student projects?

A: A few of the many examples of student successes include:

- The start of new ventures such as Lingt and its software applications that facilitate new ways to learn Chinese and other languages outside of the classroom (winner of *Inc. Magazine’s* 2009 “Coolest College Start up in America”);
- One Earth Designs and its solar cooker and other green technology applications for mountainous regions in western China;
- MeshConnect, which designed and installed wireless applications for Fuzhou University and the Fuzhou municipal government.

Q: Thanks! Any other thoughts that you would like to leave us off with?

A: Here, in Boston, China can seem a bit remote. Although MIT has a long history of interactions with China, the Institute as a whole is still learning how to work with China. Because of geographical and cultural distances, we need to work harder to engage with China and implement projects there. For students, alum, and anyone else interested in participating in a wide range of MIT China activities, let’s work together! Please refer to the “How to Get Involved” section below.

See our MISTI-China website for more information on program procedures, eligibility requirements, and deadlines: <http://web.mit.edu/misti/mit-china/>

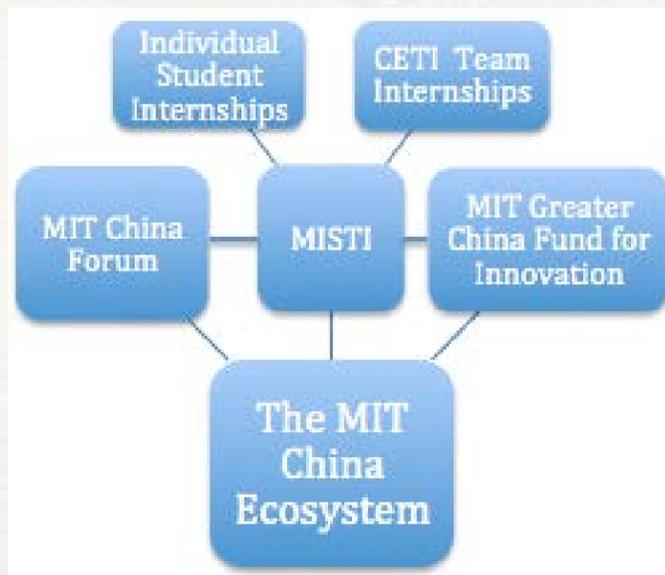
Making of the China Ecosystem

MISTI-China's History at a Glance

What is the MISTI mission?

The MIT International Science and Technology Initiatives—better known as ‘MISTI’—connects MIT students and faculty to research and innovation opportunities around the world. There are currently 13 MISTI country programs. The China Program, established in 1995, is an integral part of MIT’s engagement with China and has become a pioneer in implementing U.S. experiential learning methodologies in China. At MISTI, there are opportunities for MIT students (undergrad and graduate), faculty, alum, and other interested parties to become involved. If you are interested in China and would like to participate in our program, you can.

MIT 中国的生态系统



CETI intern, Scot Frank, at Zhejiang University

Greater China Experiential Learning: An MIT Ecosystem

- The “China ecosystem” is now very functional at MIT. MISTI-China internships are one of several activities that contribute to a lively MIT-China ecosystem, which includes:
- MISTI-China individual internships
<http://web.mit.edu/misti/mit-china/>
- MIT-China Educational Technology Initiative (CETI) team internships
<http://web.mit.edu/mit-ceti/www/apply.htm>
- MIT Greater China Fund for Innovation (Faculty Seed Funds)
<http://web.mit.edu/misti/mit-china/faculty/>
- MIT-China Forum (managed through the MIT Greater China Strategy Working Group--GCSWG)
<http://global.mit.edu/initiatives/china/china-forum/>

What does MISTI do...

... for students & alumni?



CETI team Suki Dorfman, Alan Leung, Liang Sim

Fully funded individual or team projects and work opportunities in China

- Internships with our close network of corporations, universities, and research institutions
- Chance of a lifetime to acquire knowledge of Chinese language & culture combined with hands-on technical and business experience in rapidly expanding China
- Group socials and networking events gathering MIT alum, students, Chinese organizations, and corporate Chinese affiliates around common interests and trends in China

... for faculty?



Funding for MIT faculty from the MIT Greater China Fund for Innovation to start new partnerships and jump-start new projects in China

- Opportunity for students to become involved in cutting-edge areas of technology and innovation through these faculty-led projects.

(photo: left) First Asian MIT iCampus Conference held at Tsinghua University, Beijing, June 2006. The photo includes MIT faculty and staff: Philip Bailey, Jesús del Alamo, Sean Gilbert, Rebecca Bisbee, Philip Long, Paul Oka, Hal Abelson, Jim Hardison, Jud Harward, Steven Lerman

... for the Greater Boston business and academic community?



Events, such as the MIT China Forum, first launched in 2008, as part of the MIT Greater China Strategy Working Group

- Help with establishing MIT strategies for engagement with China
- Chances to meet distinguished guest speakers and outreach to the Boston business and academic community.

(photo: left) Sean Gilbert and Ron Suleski, Board members of the Greater China Business Council of New England

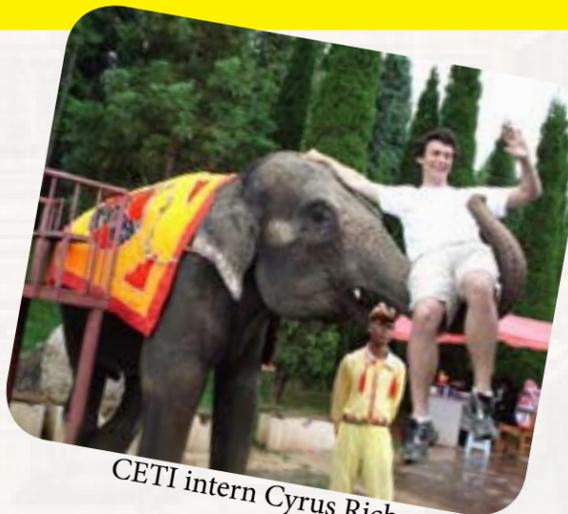
How to Get Involved

Directions:

1. Select a program
2. Send an email to china@mit.edu
(Please include your name, current affiliation, and as many opportunities of interest as you like)



Brandon Pung at EMC in Beijing



CETI intern Cyrus Rich

Opportunities for Students	Description	Annual no. of students
MISTI-China student internships (individual)	Interning at companies and institutions	25+
MIT-CETI (team)	Teaching at universities and high schools	21
MISTI China Fung Scholars Program (undergrads only)	Conducting research at universities	22
MISTI China Banco Santander Marco Polo Program (undergrads & grads)	Conducting research at universities	5
MISTI-Sloan China Lab Pilot project	Working at a company	5
Li & Fung Foundation Chinese language scholarships (contact: malrh@mit.edu)	Studying in language programs in China	14
Biennial MIT Beijing Urban Design Studio (graduates only) (contact: dennisf@mit.edu ; czegras@mit.edu)	Working in Jinan and Beijing to design clean energy cities (http://sap.mit.edu)	20
UROP-MISTI China Collaboration for International Research Opportunities (IROP)(contact: urop@mit.edu)	Conducting research at Hong Kong University of Science & Technology	up to 5

How to Get Involved (continued)



“We are very grateful to MIT for sending a team of students so far from home to teach OpenCourseWare at Qinghai University this summer. It has been an eye-opening experience for our students to interact with American students and observe MIT teaching methods. Since Qinghai University is located in a remote, high altitude region, we face many challenges. Our faculty and students have discussed these challenges with the MIT students, and we hope over time that MIT faculty and students will be able to collaborate with us on projects unique to the Tibetan-Qinghai Plateau.”

Yu Hongxian, Director of Teaching
Qinghai University, Xining

Opportunities for Everyone Else	Who is “Eligible”	Annual Numbers
Apply to the MIT Greater China Fund for Innovation	MIT Faculty & Senior Research Scientists (working with Chinese counterparts)	5-6 funded projects
Attend our annual MIT China Forum events	Open to the general public	6 China forums (free)
Host MIT interns in your company or organization; become a program sponsor	Prospective Business Partners & Collaborators, MIT Alumni	Details: http://web.mit.edu/misti/mit-china/partners/hosts.html

Opportunities for General MISTI Help	Who is “Eligible”
Join the Newsletter Committee	Anyone, especially current MIT students or alum
Be featured in our next newsletter! Send us your current stories and photos to be considered in a “MISTI-China Alumni News” section for 2012-2013.	MISTI alum doing China or international work
MISTI-China photographer	Anyone on campus, especially MISTI/CETI veterans

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Part of a company, school, or organization and want to collaborate?
Are you a MISTI-China alumnus interested in having your China experiences and anecdotes featured in our next newsletter?
Any advice, help, ideas, and/or feedback on improving or expanding MISTI-China?

Email china@mit.edu.

THANK YOU! YOUR INPUT HELPS SHAPE THE FUTURE OF MISTI-CHINA!

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MIT China Forum (中国论坛)

What is the MIT-China Forum?

The MIT-China Forum is part of a broader MIT effort to look at new ways of fostering ties with China. The Forum was created in May 2008 by the MIT-Greater China Strategy Working Group (GCSWG), which is charged with identifying new initiatives and collaborations with China over the next 20 years.



The MIT-GCSWG is comprised of faculty leaders and administrators headed by Philip Khoury (photo: left), Associate Provost, MIT, and Victor Zue (photo: right), Delta Electronics Professor of the Department of Electrical Engineering & Computer Science.



(right) Madame Liu Yandong meets with Chancellor Eric Grimson as President Susan Hockfield and Professor Victor Zue look on. (Photo: Justin Knight)

What is the purpose of the MIT-China Forum?

The MIT-China Forum hosts six or more distinguished speakers each year on a variety of China topics. These events are free and open to the public, bringing together students, faculty, and the Greater Boston community. The goals of the MIT China Forum are (1) to help raise awareness of China at MIT and in the Greater Boston area and (2) to explore new ways of expanding ties with China.



Former speakers include: (left) Zhang Xin, CEO, Co-founder of SOHO China (center) Dinghuan Shi, Counselor, State Council of the People's Republic of China; President, Ministry of Science & Technology (right) Charles Zhang, CEO, Founder of SOHU.COM, China

MIT China Forum (中国论坛)

How is MISTI China involved with the MIT-China Forum?

MISTI-China works with the MIT Greater China Strategy Working Group on organizational details and directs attendees of the MIT-China Forum to student programs and courses on China, faculty funding opportunities, and internship and sponsorship possibilities. Thanks to Professors Yasheng Huang and Ed Steinfeld; Jenny Liu from MIT Global Initiatives, and others, the MIT-China Forum has hosted tremendous speakers over the past few years.



(left) Madame Liu Yandong, State Councilor of the People's Republic of China, and MIT President Susan Hockfield celebrate the signing of an agreement to encourage collaboration between MIT and Shanghai Jiao Tong University and establish a fellowship program with the China Scholarship Council to sponsor students from China to study at MIT. (Photo: Justin Knight)

“ The program is well on its way to surpass the Greater China Working Group's recommendation of culturally preparing and sending 200+ MIT students to China per year. ”

- Sean Gilbert

(left) Zhou Ji, President, Chinese Academy of Engineering (center) Professor Xu Kuangdi, President of Chinese Academy of Engineering, Former Mayor of Shanghai City (right) His Excellency Zhou Wenzhong, Ambassador Extraordinary and Plenipotentiary of the PRC, speaks to the MIT China Forum about China's development and China-U.S. Relations. (Photo: Justin Knight)



MIT Greater China Fund for Innovation 大中国区创新基金

“We are confident that the innovations the China seed fund will produce will give faculty and students opportunities to expand their talents in new directions and consider new perspectives... We also hope the seed fund will consolidate the already-strong ties between MIT and Greater China, which we are committed to strengthening and expanding.”

Philip S. Khoury, Associate Provost, MIT

Goal

The MIT Greater China Fund for Innovation is a vital part of the MIT strategy to internationalize MIT research and education. Established in 2010, this seed fund aims to facilitate early stage joint research between MIT faculty and our Chinese counterparts (universities, research centers, and industry) in an effort to help launch early-stage international projects and collaborations.

Funding Amount

The Greater China Fund for Innovation falls under the umbrella of the MISTI Global Seed Funds. Of the \$20 million anticipated for this fund, \$2 million has been fulfilled, with the maximum award being approximately \$30,000 per project. Funding may be used to cover travel, meeting, and workshop costs and may not be used to cover salaries or materials.

Eligibility Requirements

MIT faculty, principal research scientists, and senior research scientists are eligible to apply during the annual call for proposals in September. MIT students and postdocs may not apply directly for funding, but they are encouraged to participate in projects and are required to attend MISTI-China spring preparatory sessions.



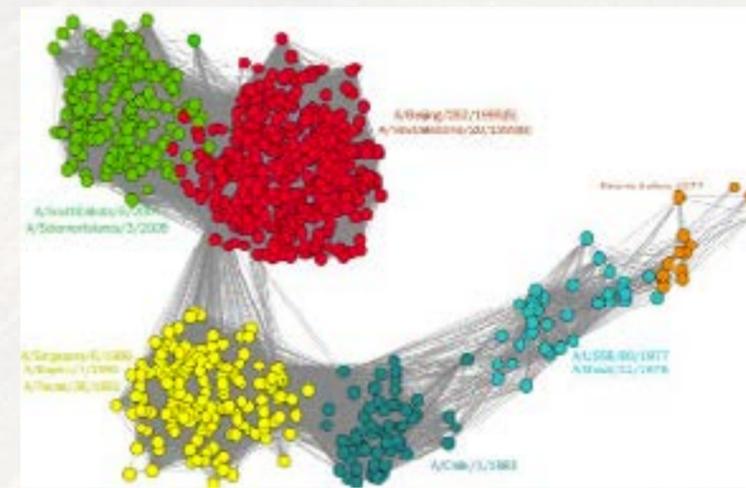
Edward Boyden, MAS

Partner Universities: Tsinghua University, Beijing Genomics Institute, and Zhejiang University

PROJECT: An MIT-China Collaboration to Bridge Ecology and Bioengineering to Benefit Human Health

“Last week we held our first meeting with directors of the Beijing Genomics Institute. We discussed new genomics ideas for how to analyze brain tissues... We are also collaborating with them to sequence the genomes of organisms for finding new molecules for controlling the brain. In a few weeks, we will work with our partner from Tsinghua University... in order to find new molecules for controlling the brain.”

MIT Greater China Fund for Innovation 大中国区创新基金



Jianzhu Chen, Department of Biology

Partner University: Institute of Biophysics, Chinese Academy of Sciences, Beijing

PROJECT: Mapping Antigenic Evolution of Influenza Viruses in China

“China has long been considered to play a pivotal role in global influenza transmission. However, the impact of influenza evolution in China on global influenza dynamics has not been fully explored. We have developed a new computational approach to model the antigenic evolution of influenza A(H1N1) virus. Our first joint publication on the collaborative research has been published in 2011.”



(photo above) Dr. Reinhard Goethert (left) and Dr. Longbin Zhu (right) in Yangzhou

Reinhard Goethert, Architecture

Partner University: Nanjing University of Technology

PROJECT: Ecological ‘Smart-Slope’ Urban Development

“Nanjing University and our MIT group propose to draw on the MIT report ‘Building on Slopes: An Approach’ (March 1970; Prof. Zalewski, Goethert and Kirby). We expand on this concept by drawing on the potential energy inherent to valley terrain and thereby mitigating risks of mudslides. The test base in China would be Guiyang and/or Guangyuan, which exhibit slope-constraints, earthquakes and mudslides, a growing population, and the potential for concept realization.”



Edward Steinfeld, Department of Political Science

Partner University: The Center for Public Participation Studies and Support (CPPSS) at the Peking University School of Law, Beijing

PROJECT: Non-Democratic Accountability: Experiments with Citizen Contacting in China

The Chinese government has opened numerous channels to citizen participation over the last thirty years, but we have little systematic information about how well these channels function. This project is a survey on government accountability that measures responsiveness to citizen requests.

MIT Greater China Fund for Innovation 大中国区创新基金



Rajeev J. Ram, Department of Electrical Engineering and Computer Science (EECS)

Solar Thermoelectric Generator (STEG) for Micro-Power Application in rural Western China

“We are working with a non-governmental organization (One Earth Designs) to deploy thermoelectric generators as a part of Sol-Source 3-1 for solar cooking, heating and electricity generation for remote villages in rural Western China. During the summer of 2011, MIT graduate student Reja Amatya spent 4 weeks in Qinghai Province performing field trials in several villages.” - Prof. Rajeev Ram, EECS

“Three of the families who participated did not have any electricity prior to this study. With water heating at the cold side, the STEG system can be used for cogeneration (electricity and hot water).”

-Reja Amatya, Rajeev J. Ram (RLE, MIT)

“In collisions of heavy nuclei like gold, the state of matter found in the early universe, about a micro-second after the big bang, can be recreated.”

– Gunther Roland

Gunther Roland, Department of Physics
Partner University: National Central University, Taiwan

PROJECT: Illuminating the Primordial Quark-Gluon Liquid

“We have worked with groups from National Taiwan University and National Central University on the analysis of data (CMS at the Large Hadron Collider). Yen-Jie Lee showed preliminary results at the Quark Matter conference in France in May in front of 800 scientists from around the world, and our first paper will enter the last step towards publication this afternoon in the so-called “collaboration wide review,” where all 3000 members of our experiment get to comment on the paper draft. Our next data taking period starts in two weeks, and we will have another meeting in Taiwan shortly to discuss our next publication based on the new data.”



Large Hadron Collider

MISTI-China Student Internships

What are MISTI-China Student Internships?

MISTI-China matches MIT students with companies and academic institutions throughout China, Taiwan, and Hong Kong. There are two categories of MISTI-China student internships: individual and team (CETI) internships.

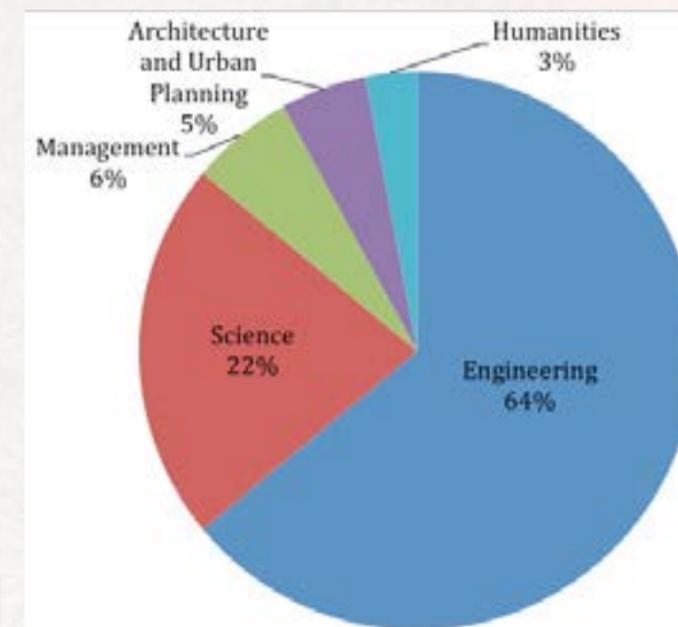
What does MISTI-China provide students?

MISTI-China fully covers students' travel and living expenses. We also ensure that students are culturally prepared for their 3-12 month trips abroad by requiring experiential, applied training, which includes:

1. up to two years of Chinese language study or the equivalent;
2. a course on modern China; and
3. a spring orientation and logistics seminar.

When do I apply?

We accept submissions starting in the fall for both individual and team (CETI) internships. **MISTI-China individual internships** are accepted on a rolling basis. Students correspond with their host organizations, which confirm individual internships anytime from late fall to late spring. We accept submissions for **MISTI-China CETI team** applications from fall until October 31. MISTI-China will confirm student acceptances by mid-December.



Candidates for MIT MISTI-China internships come from all academic backgrounds and courses of study.

YOUR GUIDE FOR THE UPCOMING PAGES: MISTI-CHINA STUDENT STORIES

Part I: Individual internships at companies and research institutes

Part II: MIT-CETI team teaching internships at universities and high schools

Part III: New Programs including:

- (a) Fung Scholars
- (b) Fung Language Scholarships
- (c) Banco Santander Marco Polo Program
- (d) Company Team Internships
- (e) MIT-EECS International Partnership

Part I. MISTI-China Individual Internships



Claudine Stuchell, M.S. in Urban Planning
10 week internship in Guangzhou, Vanke Company, China's largest residential real estate developer

"This summer was the first extended period I had spent in southern China. Prior to this past summer, I had no experience in real estate development... My interest in Wanhuilou, the low-income housing project, guided the course of my internship. I learned not only about the office's business strategies but also about the institutional framework that governs property development in China. My hosts at Vanke could not have been nicer or more helpful. I quickly learned to love the efficient subway [and] Guangzhou has excellent cuisine. I am very grateful to MISTI for providing me with this opportunity."

Gennaro Bisesti, MIT MBA, June 2011
8 week consulting project at Shanghai Origin International Logistics Co., Ltd

"Working with Shanghai Origin for a couple of months this summer has been an incredible experience, both personally and professionally. On the personal side I made friends, traveled to amazing places, tried new delicious cuisines and... learned a lot about Chinese culture. On the professional side I was able to improve my skills in managing expectations, communicate efficiently with clients, effectively work in a diverse management and engineering team, and learn some Chinese."



Brian Stephenson, M.S. Mechanical Engineering
Business Strategy Intern work for OutBio, a bioinformatics startup located in Beijing, China.

I worked with OutBio to help them develop a business plan to provide strategic direction for their expansion over the next several years. My biggest asset in working with OutBio was a native fluency with English, which allowed me to search through English information online more quickly than my Chinese-speaking colleagues. Working in China was challenging but also very rewarding. My work experience in China and knowledge of Mandarin should make it much easier for me to get consulting engagements in China in the future.

Part I. MISTI-China Individual Internships

(photo: right) James Cheung, Master of Finance, MIT Sloan
Winter Internship at Société Générale,
Corporate and Investment Division, Hong Kong

"I truly enjoyed my internship and I believe it is one of my best experiences in life. In addition to my enriching experiences on the trading floor with traders, sales, and financial engineers, I got to experience the unique and stimulating culture of Hong Kong which included visits to the Buddha Temple, the peak, night markets, Asian museums, and local cuisines. My experience has provided me both a solid foundation in my career in finance and a spring board into the emerging Asian financial markets."



(left) Jean Li, Architecture,
Internship at Atelier FCJZ, Beijing
(Fall 2010 - Spring 2011)



in an architecture office." (photo: above) "FCJZ employees gather for a group picture outside of our office on a beautiful autumn day. I am kneeling in the front row, wearing a bright fuschia scarf. Professor Yung Ho Chang (head of the firm) is at the far left."

Hannah Farrow, B.S. Brain & Cognitive Science, 2011
10 week summer internship at AbMart Shanghai

"The MISTI China program found a Chinese company that would fit well with my interests and training: Abmart in Shanghai. Few outsiders (even today) get to see the inner workings of a Chinese corporation. Not too long before I prepared to wrap up the internship I signed my first job offer to work for Abmart setting up an office in Boston. I now have my first official job because of MISTI China. I had an incredible experience this summer and I'm now about to start a new kind of adventure right here in Boston."



Part I. MISTI-China Individual Internships



Ye Yao, Biology, 2011
Fudan University, School of Management, Shanghai

“Since 2009 when I first came to conduct research with Professor Dai Weihui (Fudan University School of Management) as my generous host, entrepreneurship has gained significance in more developed countries, like in the U.S. The benefit of staying in China goes unsurpassed if one really wants to understand the realities in the local communities. I’m really thankful to Junyu Wang, a friend and mentor, and all those who made this experience possible.”

Peter Goodings Swartz, PhD student in Political Science
Summer internship at Woodside, Beijing, China

“The task was very appropriate. My background is in civil engineering as well as in international relations / political science, and this project allowed me to apply and develop my skills and interests in infrastructure development, technology application, Chinese-language business communication, understanding of the Chinese market and economy, and international trade in natural resources. By the end of the internship I had advanced my ability to work at a professional level in Chinese.”



Thomas Morisset,
M.S. in Technology & Policy
MISTI China Summer 2010, Beijing Tsinghua
Urban Planning & Design Institute

“My internship in China was more than I expected. It is fascinating to experience a system that is still profoundly different in its rules and functioning from the western countries. I made remarkable progress in the Chinese language and gained a valuable understanding of doing business in China thanks to my full immersion in a Chinese-speaking organization. Gaining access to that organization would not have been possible without the support and reach of MISTI China, and for that I am very grateful. Thank you MISTI China!”



Part I. MISTI-China Individual Internships

Xinzhu Wang, Management, 2012
10 weeks Summer 2010, Internship with Silver Rock Group (SRG)

“Through this experience in Shanghai, I learned much about what private equity firms do; I was able to apply what I learned in accounting and finance theory classes to analyze the financials of potential companies to invest in. In addition, through this experience, my Chinese reading and speaking skills improved drastically. If I were given another opportunity to go live in China, I would definitely go again.”



Shan Wu, Ph.D. in Biological Engineering
5 months in Beijing, interning with the United Nations Industrial
Development Organization (UNIDO)

“UNIDO works with various developing countries to develop more sustainable industrial practices while maintaining economic growth. My internship with UNIDO developed recommendations for measuring product carbon emissions in China and how to apply them within the trade industry; and then establish recommendations for what roles the environmental and carbon impacts of a product should play in China’s trade agreements with the rest of the world. I am extremely grateful to have this tremendous opportunity through the MIT-China Program to be in Beijing and to work in an area immediately relevant to my career development.”



Anne Shen, Mech E, 2011
Summer internship with the Hisense Industrial Design Team, Qingdao

“The internship opportunity I got this summer was incredible. I worked at Hisense, one of the top Chinese electronics companies, as part of the Industrial Design team. Specifically, I worked on exterior design of the latest consumer electronics, mostly using Rhinoceros 3D modeling software and Adobe Photoshop. Even as an intern, I was able to participate in the entire design process from start to finish. In each project I worked on, I could always try to pursue a better design and a more unique feel. At the beginning of this internship, I could barely use Photoshop – and by the end of the summer, I was a pro! I’ve walked away from this internship with a concrete set of skills that I’ll be able to apply over and over in the future, and for that, I cannot be more thankful to have had this experience!”



Part II. MIT-CETI Team Internships

What is the MIT-CETI program?

The MIT-China Educational Technology Initiative is MISTI China's student-initiated teaching program. The goal is to promote cultural exchange between American and Chinese students through hands-on applications of science and technology. CETI teaching interns work in teams of three with at least one fluent speaker.

How do you apply? How competitive is it?

Students apply to CETI at the end of October via an online application from the MIT-CETI website and by registering online with MISTI-China. Each year, approximately 60 MIT students apply for 21 CETI openings. Those accepted are organized into 7 teams that teach at 2-3 Chinese universities or high schools over the summer.



CETI intern: Chang She

The Innovative Spirit in MIT Students' Founding of CETI (1996)

In 1996 MIT students **Jake Seid** and **Ron Cao** established the MIT Computer Educational Development Initiative (CEDI) to connect the Number Two Secondary School attached to East China Normal University to the Internet. The following year CEDI was renamed the MIT China Educational Technology Initiative (CETI) and organized under MISTI-China. Several teams of MIT students were sent to China to teach Internet technologies at high schools, and their activities were featured in *The New York Times*. Since 1997, the CETI program has recruited and trained small teams of MIT students to work with universities and high schools in China, building cross-cultural understanding between generations of Chinese and American students through the application of technology. CETI has extended its educational technology programs over the years to Chinese universities through innovative, new partnerships with MIT-OpenCourseWare (OCW), MIT-iLabs, and MIT D-Lab, with the following goals:



Elizabeth Kimball, Vibin Kundukulam

- OCW: to promote the sharing of knowledge by providing educators, students, and self-learners anywhere in the world with free, searchable, online access to MIT's course materials.
- MIT-iLabs: to achieve a substantial and sustainable impact on higher education through information technology. iLabs incubates online innovations for laboratories at MIT and promotes their dissemination around the world.
- D-Lab China: to provide an opportunity for Chinese university students to work with MIT students on sustainable development projects in China's rural areas.

Part II. MIT-CETI Team Internships

MIT OpenCourseWare (MIT OCW)

CETI's pilot OCW project began in Summer 2004 when CETI sent five MIT students to the Tibetan-Qinghai Plateau to work with Qinghai University faculty and students on MIT-OCW subjects in biotechnology, computer science, and environmental engineering. This was made possible through the collaborations between MISTI-China and Tsinghua University.

The CETI team's teaching schedule was loosely based on the MIT model, which each week involved 3 lectures per subject, 2 recitations to review lecture material, and 1 lab. MIT students also added cultural presentations and seminars to the curriculum, including one lecture per week on aspects of American culture. Approximately 100 Qinghai University undergraduates attended. Since then, other CETI OCW projects have adopted variations of the CETI Qinghai University summer program structure across China.

CNN introduced MIT-OpenCourseWare on its September 18, 2004 *Global Challenges* television documentary which featured CETI's pilot OCW project at Qinghai University.



"Mr. CETI": CETI "legend" Salvatore Scaturro at Qinghai University, 2005

One of our students, Salvatore Scaturro, remained at Qinghai University during the 2004-05 academic year to teach fluid mechanics courses, which the Qinghai students took for university credit. Sal's pioneering work at Qinghai University blazed the trail for MIT D-Lab projects in western China, which he led with other CETI veterans. This laid the groundwork for Scot Frank's teaching at Qinghai University two years later and the eventual establishment of Scot's NGO, One Earth Designs.

"The concept behind OpenCourseWare is so revolutionary; I am certain that it will change the face of education around the world. It already has begun to do so, as I've seen it applied here in Qinghai."

– Salvatore Scaturro

B.S. 2004, Civil & Environmental Engineering, MIT
2000-2005: 5 time MIT-China Program Intern



Qinghai University students attending a CETI OCW class

Part II. MIT-CETI Team Internships



CETI team Phyo Kyaw, Adrianna Tam, Karen Wong arriving in Kunming



Emily Shao, Vibin Kundukulam, Danielle Whited, Rebecca Gould, Daniella Wang, Elizabeth Kimball, May Liu

Gil Patrice Zamfirescu-Pereira, Mathematics

“CETI throws you into a situation that requires you to discover a great deal of maturity. Interacting with all of our students was a remarkable experience; we were treated like rock stars. It’s the closest most of us will come to being famous. I learned a lot about China, my teammates, teaching and cultural exchange; and I learned a lot about myself.”



Rany Woo, Gil Patrice Zamfirescu-Pereira, Samuel Poon

MISTI China Project Locations



“We were treated like rock stars. It’s the closest most of us will come to being famous. I learned a lot about China, my teammates, teaching and cultural exchange; and I learned a lot about myself.”

Part II. MIT-CETI Team Internships

Pangus Ho, M.Eng. 2012

“The first part of my internship was at Dalian University of Technology in Dalian, Liaoning. The second part was at Huazhong University of Science and Technology in Wuhan, Hubei. The work was done in a team of three MIT students: David Boeger, Ruwen Liu, and me. All three of us majored in Electrical Engineering and Computer Science. During the summer, I gained very useful engineering skills through the installation of the iLab network while learning a lot about China-- which will be very helpful in my future career.”



CETI banner with Minji Kim and Jerry Chao

Sueann Lee

Civil & Environmental Engineering

“Xi’an Jiaotong University was the first university we went to on our trip so I was uncertain about the reactions of the students, their English and comprehensive abilities, their enthusiasm and interest in my subject matter, the logistics, and my own capacity to deliver quality lectures/sessions. Fortunately, everything went quite smoothly. The students took part in a debate about global warming, and I was quite impressed by their performance, when English is not their native language and global warming was also not their field of study. I learned much about Chinese culture from my visit to Xi’an Jiaotong, and I’m glad the students also learned a little from us!”



Tess Veuthey, Stephen Steger, Itamar Kimchi

“This program was everything I had hoped it would be--My only disappointment was that I only participated in CETI after my senior year, meaning I won’t have another chance to take part in this amazing program!”

- Vibin Kundukulam, B.S. Mechanical Engineering

(left) David Boeger, EECS

Huazhong University of Science & Technology, Wuhan

“I would quickly choose another international opportunity like this one in the near future, and I will certainly recommend it to my friends and classmates. Working with immediate peers is a great experience, but gaining the cultural experience and practicing communication and cooperation skills with people from a different culture is invaluable.”



Part II. MIT-CETI Team Internships



(left) President Clinton visits CETI project in Shanghai; with Fudan High School students (Photo courtesy of the White House)



(right) CETI students with U.S. China Trade Ambassador, Charlene Barshefski

Q: I heard that MIT-CETI news has reached the U.S. government as well?

A: From time to time we will receive inquiries from the U.S. State Department on our projects when U.S. government leaders schedule visits to China. In the late 1990s, CETI sent teams of students to Chinese high schools for internet and cultural exchange activities. In 1998 the U.S. State Department arranged for President Clinton to visit a CETI high school project in Shanghai. The following year, then First Lady Hillary Clinton visited another CETI high school project in Shanghai. In 2005, Dr. George Atkinson, the Scientific & Technology Adviser to the Secretary of State, Condoleezza Rice, referred to MISTI China at a Washington D.C. conference as “a model U.S. program for educating students in a global economy.”



Dan Wheeler and Salvatore Scaturro
Xining, Qinghai, China



First Lady Hillary Rodham Clinton visits Shanghai No. 3 Girls School (Photo courtesy of the White House)

Part II. MIT-CETI Team Internships



(left) Sean Liu, Department of Electrical Engineering & Computer Science, MIT 2010

“My CETI experience was unforgettable. Delving into the Chinese culture, I explored the tastes (from pig ears to sheep feet), sights (breathtaking mountains), smells (think Durian) and sounds (learning Chinese!). The CETI experience required all the skills I had available. Adaptability was crucial. I think most importantly, it was the students that made the experience truly unforgettable. Over the four-week stay at Dalian University of Technology, the iLabs students took our team out on a variety of fun activities including: KTV, shopping, going to the movie theater, cherry picking, senior graduation, watching movies in the lab, and more. David and Wang Wei, one of the graduate students in iLabs, created a multi-touch screen as a 10-day project. The final product was fully functional and extremely fun to use. Following my work at Dalian and Hangzhou, I was able to take a trip around China visiting Shanghai, Suzhou, Nanjing, Xian, Dunhuang, Fuzhou, and Macau. Together, along with my CETI internship at Dalian and Hangzhou, it made for one of the best summers. Ever.”



(front row) Grace Lee, Yeona Chun, Katie Loh, Leo Luo; Dr. Lawrence Chan, Sean Gilbert, Chris Varenhorst, and James Lau

HOST SCHOOL TESTIMONIAL

“The MIT-China Program at Tsinghua University was really successful this summer. The MIT students, Chang She, Shiling Seow, and Vanessa Hsu-Chen, worked very hard and received the respect and friendship both from the faculty members and the students here. In all, we are glad to see the good beginning of our cooperation. For later communication, we want to learn more details about the relationship between different MIT courses. Maybe we can try other courses that follow 6.001 (better in C++ or Java) and courses on system structure. We also want to learn more about iCampus.”

Letter from Tsinghua University, Department of Computer Science & Technology, Beijing



photo: Tess Veuthey

Part III(a). MISTI-China Fung Scholars

What is the MISTI-China Fung Scholars 2011 program?



Melanie Parker (left most), Executive Director, MIT Global Education and Career Development, and Malgorzata Hedderick (second from left), Associate Dean, Global Education join Sean Gilbert (4th from right), Managing Director, MISTI China and student scholarship recipients of the Li & Fung Foundation for dinner in Beijing.



A partnership newly formed between the Office of MIT Global Education & Career Development and MISTI China that awards Li & Fung Foundation funding opportunities to undergraduate students to conduct research internships at universities in China, Hong Kong, and Taiwan. In 2011, 19 students including 2 students with the MIT-EECS "Empower the Teachers" Initiative interned at nine universities.



Part III(a). MISTI-China Fung Scholars



Lin Xie with Professor Shan and his students

Lin Xie, Architecture, 2013

Tsinghua University, School of Architecture, Beijing

"The project was a luxury private residence in Shandong province, and the design stems from traditional Chinese architectural elements, such as a symmetrical program and a series of courtyards. Through [the process of creating several plan drawings], I explored the arrangement of courtyards – one of Professor Shan's specialties. I experienced first-hand the long and arduous procedure in preparing a design for actual construction and sharpened my software skills."



Luke Chellis, B.S. Biology, 2013
National Taiwan University Medical School

"This summer, the Li and Fung Scholarship supported me to work in the lab of Dr. Sung-Tsang Hsieh in Taipei, Taiwan. Dr. Hsieh's lab is studying the neuro-molecular nature of pain, and I was immediately assigned a PhD student to assist me in jumping right into the research. First, we performed a test on the rats' responses to both thermal and mechanical pain. Next, we performed a neural-ligation surgery on the L4 spinal nerve, which causes a complete neural injury without any other injury. After the surgery, we performed another pain test on the rats to confirm that the rats exhibit neuropathic pain. I was able to take a meaningful role in the research and learned a lot. Moreover, I had a great opportunity to practice my Chinese. My days were filled with both biology and Chinese lessons."



Lindsay Stone
Civil and Environmental Engineering, 2013
Tsinghua University, Department of
Environmental Sciences & Engineering

"I have not yet participated in any research in [environmental science] at MIT, but this summer has made me want to pursue it. I have learned countless lab procedures and how to use all the machines in the lab. Absolutely the best aspect of my internship has been spending time with the graduate students. They really took me under their wings and were so excited to host me and show me things about China. They helped me find my apartment and move into it; have taken me to eat every kind of Chinese food they could think of; and even taken me with them on a retreat to a nearby lake. While our conversations rarely started out having anything to do with Chinese culture or politics, I often learn a lot about both just by talking and listening to them."

Part III(b). Fung Language Scholarships

“Chinese fluency is always a goal, and MISTI China requires a combination of classroom and in-China learning that improves the language skills of everyone who participates in the program.”

“MISTI-China requires students to acquire a solid foundation in Chinese at MIT, which they put to good practice in internships in China.”

MIT offers “regular” Chinese courses to beginning level students and “streamlined” tracks for Chinese heritage or more advanced students of the language. Additionally, this year the MIT Foreign Language and Literatures department has offered a “Very Fast Track” Chinese course which is the equivalent of four semesters of Chinese language studies in six months taught over January’s Independent Activities Period (IAP) through the spring semester.

However, without an extended period of time studying or working in China, it is still very difficult for students of Chinese to acquire any level of fluency. Therefore, the **Li & Fung Foundation** is a welcomed and timely addition to the program as it funds students who combine Chinese language learning with MISTI internships in China.

Learning Chinese is no walk in the park.



四个星期以后 (After 4 weeks)
Ye Yao's stack of vocabulary notecards



Part III(b). Fung Language Scholarships

Ye Yao, B.S. Biology, 2011
New Century Language & Culture Center, Tianjin

“One of my purposes in China was to learn Chinese well at all costs. Each day of my language studies strengthened my understanding of China. All of the articles that I read in my Chinese language lessons were from past newspapers, which reflected China’s developing times, from the 30-year transformation of the *Gaokao* to issues on unemployment, technology, international relations, innovation, and more. I previously had no opportunities to understand any of this material. In these past four weeks, I was not only able to study vocabulary and grammar, but I was also able to apply newly learned material directly in conversations. I have been able to go on-line and read articles on entrepreneurship and business in China that I would have spent an entire day translating previously; I have been able to speak with locals about the frequency of their usage of the Internet, mobile phones, and learn local knowledge of China (some unfiltered information can be very different from what one reads on the news). During this period, I have made friends with those who tutor at New Century, and they have been invaluable in their help, openly discussing their opinions on questions I have about the Internet, China’s economy, the political and entrepreneurial atmosphere, their own mindset and ambitions.”



个别谈话 (individual discussion session):
Ye (right) with one of the student tutors

John Boghossian, B.S. EECS & Management, 2011
New Century Language & Cultural Center, Tianjin



John (left) with one of *Tianjin's*
New Century's language instructors

“At school, the teachers were absolutely fabulous. The New Century Chinese one-on-one teaching model is a marvel when it comes to learning Mandarin: each one-hour block flows at whatever speed you want it to, and all the questions and answers are directed at you; thereby maximizing its added value. Overall, I believe studying abroad has greatly deepened my tie with China. From the last time I visited the country (2009) as a MISTI-China intern at IBM in Beijing, which was also my first visit to China, I felt that my knowledge about cultural and psychological aspects of the Chinese have evolved tremendously. This is due to both the daily discussions in class, which went beyond the vocabulary entries in the books, and my interactions, almost 24/7, with the Chinese people and culture. Also, I appreciate that my program was held in Tianjin rather than in Beijing or Shanghai (which are more usual hubs for foreigners)—as a second-timer in 中国 (China), there were less opportunities to fall back on English, and people in public areas were more likely to explain, for instance, that ad sign's meaning to me, since they see fewer foreigners around.”

Part III(c). Marco Polo Program

Banco Santander, through its Global Santander Universities Division, has launched the “Marco Polo Program.” This is a unique international mobility program that enables students and professors from twenty universities connected to the Grupo Santander University Network to participate in an academic stay or participate in a research project at a Chinese university. In 2011, Banco Santander provided funding for five MIT graduate students to participate on research internships.

Bryan Haslem, Ph.D. Candidate, EECS.

Summer 2011 internship, Tsinghua University, Dept. of Biomedical Engineering

Project: Neural Information Decoding Using EEG

“I [spent 8 weeks] visiting the group of Prof. Hong Bo at Tsinghua University [to] solve a computational challenge. My project was to improve the performance of the algorithm for the auditory BCI. I had never used the techniques involved in classification previously, so it gave me the opportunity to learn about and gain experience working with support vector machines (SVMs). I then implemented and adjusted various techniques using SVMs and came up with improved results. As a graduate student, one of my objectives was to engage in research activities tangential to what I am working on at MIT. [This] opportunity gave me greater experience both in application and technique, as well as the opportunity to learn about China, Chinese culture and academic research in China.”



Jonas Nahm, Ph.D. Candidate, Department of Political Science

Two-month internship at Tsinghua University Business School

Project: Research on the reasons behind co-location in the wind and solar energy equipment industries across China, Germany, and the United States



“My research [allowed] me to further my understanding of the ways in which the Chinese policy environment has affected firm decisions about co-location of production and R&D activities and how government policy has shaped the development of the local supply chain in the wind and solar power sectors. After having collected data on the development of the Chinese supply chains in wind and solar power sectors through firm interviews with Chinese and foreign solar and wind companies and their suppliers, I am focusing on collecting information on the development of the policy environment in which these firms have operated. The Marco Polo program has been critical in making possible this research.”

Part III(c). Marco Polo Program

Valerie Karplus, Ph.D. Candidate, Technology & Policy Program.

Three month 2011 internship at Tsinghua University.

Project: Research on China’s provincial input-output tables (economic flows to and from sectors throughout the economy) and energy balances by fuel type



Valerie Karplus visiting the advanced control center of China Light and Power, Hong Kong.

“I am very grateful for the support of the Marco Polo program. My work gave me the opportunity to teach and interact with students at Tsinghua University, develop the data needed to calibrate a new energy and climate policy analysis tool, and visit several other research institutes and companies working in the energy field in China. No amount of study can substitute for in-country experience in China when it comes to understanding what drives people, policy, and the economy, now and into the future. Though impossible to fully understand, China is best glimpsed and interpreted through the lens of extended visits that involve rich interaction with individuals, working together to understand common questions or achieve shared goals. My work in China this fall has laid the foundation for future studies using a combination of empirical and modeling tools to better assess the impact of climate and energy policy designs currently under consideration by China’s leaders.”

Nicholas Martin, Ph.D. Candidate, Department of Political Science.

One year internship at the University of International Business and Economics in Beijing

Project: How States Manage Their Energy Systems (market and regulation-based approaches versus ownership-based approaches)

“I am undertaking a detailed comparison of the developmental history of four industries over the past fifteen to twenty years: coal mining, steel smelting, airlines, and wind-turbine assembly. All of these industries have been labeled “strategic” in one context or another. Yet we see substantially different outcomes across these industries. My research over the past six months in China has indicated that four variables are significant for explaining this variation; viz. the timing of the initial development of the industry (whether it occurred early on in the socialist or reform eras, or only late in the reform era; market structure (specifically the degree of segmentation: does the industry consist of many niche markets, or of one fairly integrated market) and related to it, the interests of SOE incumbents (do they directly compete with private/semi-private firms or not), and the precise nature of government objectives for the industry. The Banco Santander Marco Polo Program funding has enabled me to visit China for the extended period of time needed for this research.”



Part III(d). Company Team Internships

Company Team Internships



We have learned through the MIT-CETI team internship program that students can contribute significantly to their host organizations in small teams of 3 or 4 students while learning about local culture and customs in many diverse settings across China. We therefore decided to try the CETI team model with industry internships as well. The pilot MISTI-Sloan China consulting team and MISTI-China biotech team projects were tremendously successful.

I. MISTI-Sloan China Lab Consulting Team

Since 2008, Chinese and MIT Sloan MBA students have established four-person teams for three-month projects as part of a spring semester course which includes a two week onsite visit to the companies in China. Each team — two Chinese MBAs, two MIT Sloan MBAs — partners with a Chinese entrepreneurial firm, conducting a consulting project on the firm's greatest challenges. In Spring 2011, MISTI-China worked with Sloan China Lab on a project that injected new elements into the Sloan model: Sloan MBA students were paired with MISTI China engineering students for eight weeks of onsite consulting work at a Chinese logistics company called Shanghai Origin.



- (left to right)
- Annie Huang, Mech E & Mathematics, 2012
- Yi Zhang, Chemical E & Management, 2013
- Josephine Boateng, MBA 2011
- Tigran Sloyan, M.Eng 2012
- Gennaro Bisesti, MBA 2011

“Our work with Origin can be divided into 3 phases: market choice, business model, and implementation. On a daily basis we were reporting to a manager, and the primary decision maker was the General Manager whom we were usually meeting with on a weekly basis. Business meetings were exclusively in Chinese and we always needed a translator for the non-Mandarin speakers. Working closely with the management we analyzed how Origin can fit into a particular product market, after which the idea that emerged prominently was that Origin should spin-off a new company that will import, distribute and even commercialize this particular product. By studying competitors and success cases in comparable industries, we developed a set of very detailed recommendations on how to implement the new company. All in all our perception is that we were able to add great value to Origin and they would be glad to further collaborate with MIT in the future.”

Shanghai Origin - Info

Shanghai Origin is a small company in the import/export business that, so far, can be considered a very successful venture. Founded in 2005, the company now counts more than 200 employees. Because its revenues are concentrated in one market segment, the management asked the MISTI-China Lab team to look for opportunities to differentiate their business portfolio.

Part III(d). Company Team Internships

II. ABMart Shanghai Biotech Team

Jennifer Fung
B.S. Biology, 2013

“One obstacle that I faced when I started working at the company was communication. Although I can understand and speak Mandarin fluently it was hard for me to understand biology vocabulary. However I was able to catch on quickly with what I had learned during sophomore year and some online research. Some of my first mandarin biology vocabulary that I acquired was “xi bao” which means cell and “dan bai” which means protein. By the end of the 10 weeks that I was there I was able to understand the names of the different processes that were performed in the lab.”



Jennifer Fung's department at AbMart Shanghai

Leslie Chan
B.S. Chemical Engineering, 2013

Last summer, I worked at Abmart Inc., a Shanghai-based antibody company. As we analyzed the details, we pinpointed the website as our biggest point for improvement, and consequently I became Project Manager of a total website revamp. Communication was done in mostly Chinese, but naturally some English terms were needed when talking about web tools and such.

As Abmart is a relatively young company, with lots of potential for growth, I was simultaneously working on opening a US branch office in Boston, researching everything from overhead costs and litigation costs to employment details and shipping logistics. With a few contracts here and there, and a set date for a branch opening in the fall, the MIT China Biotech team that I was working with was shaping the face of the company.

Looking back, it was a nice change to work in industry and get a different perspective on the biotech field, especially since I spent the previous summer doing straight laboratory work in Germany. With young companies like Abmart, the opportunities are endless, and, as evidenced by the wide range of projects I worked on, the flexibility great. I had a chance to work on projects I never would have imagined, and learned all sorts of things about almost every facet of the business.



Part III(e). MIT-EECS/MISTI-China International Partnership

Introduction

MISTI-China has worked with MIT-EECS students and faculty in China for many years. Consequently, when the MIT-EECS International/MISTI partnership was established in 2008, Sean Gilbert was invited to help coordinate the activities. Currently nearly 100 EECS students participate in internships each year in 13 MISTI country programs, 15-20 of whom participate in China internships each year. MISTI-China works closely with EECS International on some of its key China initiatives, including

1. The new Tsinghua-MIT-Chinese University of Hong Kong (CUHK) Research Center for Theoretical Computer Science
2. “Empower the Teachers” Initiative
3. VI-A China M. Eng Thesis Program

1. Tsinghua-MIT-Chinese University of Hong Kong (CUHK) Research Center for Theoretical Computer Science



The purpose of the Tsinghua-MIT-CUHK Research Center for Theoretical Computer Science is to enhance research and cooperation in theoretical computer science and to promote the international exchange of undergraduate and graduate students. The Research Center marks the first time that Tsinghua University, amongst other Chinese universities, has formed a joint research center with a top American university in the field of theoretical computer science. MISTI-China sent our first EECS student to intern at the Research Center at Tsinghua University last summer.

Jing Jian, EECS, 2013, Tsinghua University,
Institute for Theoretical Computer Science (8 weeks)

“The professor I worked with, John Steinberger, has extensive background in math. The problems he works on are perfect demonstrations of how mathematical analysis plays an important role in proving various theorems in computer science. I learned that theoretical computer science research shares the same beauty and structure as math research, and requires the same kind of insights and rigor. I now feel more competent at quickly understanding research results, and tackling seemingly abstruse problems. I was so lucky to have interacted with most of the professors in the lab, and benefited greatly from my interaction with each of them.”



Part III(e). MIT-EECS/MISTI-China International Partnership

2. Empower the Teachers

International transfer of teaching methodology and research is being developed at MIT with premier universities abroad allowing younger faculty to spend a semester or year at MIT—teaming with EECS faculty in teaching core curricula and starting research projects with UROP and graduate students. In addition, EECS Teaching Assistants, Research Assistants and undergraduate UROP students who work with the visiting faculty have exciting opportunities to return for a summer or semester at their universities to help transfer course materials and/or complete the research projects.

Ta-ming Shih, Ph.D candidate, EECS
HKU, Hong Kong

“Spending a month in Hong Kong was definitely one of the best summer trips I’ve ever taken. I went to Hong Kong University (HKU) to transfer over the labs from 6.007, but the experience was so much more than that. Hong Kong is a wonderful place with great people, and HKU was no exception. My host, Professor Kenneth Wong, provided me with the materials and support that allowed me to finish my tasks ahead of schedule. I then helped to incorporate some of the material into a graduate course there. I was also able to attend their research talks, and ended up giving a departmental seminar on my own research towards the end of my stay.

I made a lot of friends during my short time there. On the weekends and holidays, we would go explore the many sights of Hong Kong, which were often a short bus ride or boat ride away. The great thing about staying for an extended time is that we were able to experience the culture and the food of Hong Kong, the richness of which a short vacation could not do justice. During my stay there, President Hockfield made a visit to Hong Kong, and all of the MIT students were invited to a formal dinner with her. It was a great experience to meet the MIT alumni in Hong Kong, and I am humbled to have been part of the MIT community in Hong Kong this summer.”



Ta-Ming Shih, left, with EECs Professor Charles Sodini, center, and Hong Kong University Professor Kenneth Wong at a dinner for MIT President Susan Hockfield and the other MIT interns and alumni/ae in Hong Kong.

Michael Georges, M.S. EECS
HKUST, Hong Kong

“In February of 2010, I visited the Hong Kong University of Science and Technology with the help of the MISTI China program. At HKUST I helped to develop a series of labs for an introductory undergraduate course similar to MIT’s 6.02. It was very interesting to see the similarities and differences in how Electrical Engineering is taught, and interacting with the students and staff was extremely rewarding. I also got a chance to explore Hong Kong and see the many Chinese New Year celebrations, including the New Year’s Eve Market and Victoria Harbour Fireworks.”



Part III(e). MIT-EECS/MISTI-China International Partnership



Kevin Fischer, EECS, 2012
ASTRI, Hong Kong

“For me, my experience in Hong Kong was all about trying to understand and learn from a culture very different than my own. Initially, I often encountered misunderstandings, just like the subway system that served as seemingly impassable obstacles, but after conquering these barriers I was able to have rewarding interactions with the local culture. My internship likewise began with a very rough start. My adviser and I both had different ideas and directions about both my project and the role of an internship, but after a bunch of hard work and understanding

on both our parts, we were able to come up with a very rewarding project. I joined a group that is working at the forefront of smart grid technologies. Aside from technical skills, the most valuable lessons I learned were in people skills. However, working, learning, and living with people from a different culture provided a unique and important lessons that I never could have experienced in the United States. These lessons have made my experience in Hong Kong an unforgettable experience that I'm sure has helped shape my life!”



Annie Tang, EECS, 2014
HKU, Hong Kong

“The old saying goes, “time sure flies fast when you're having fun”... the time I've spent in Hong Kong this summer seems to span something more like 2 days rather than 2 whole months. My roommate, Tanya Liu, also my partner in crime at the Imaging Systems Lab at the University of Hong Kong, and I were assigned a project involving the Xbox Kinect Sensor. Our task is fairly simple to explain: develop a way to use the depth sensor on a Kinect to process American Sign Language. The project offered a great deal of imagination, creativity, and options. I used a Hopfield Neural Network algorithm for the training and recognition phases, and it works quite

Me and Tanya Liu, on the far left and second to left, respectively, along with the PhD students at the Imaging Systems Lab at HKU. Dr Lam, our supervisor and director of the lab, is on the far right.

well for static hand gesture recognition. I am so grateful to the Li & Fung foundation, to MISTI China, and to the University of Hong Kong and Dr. Lam for giving me this great opportunity to learn, both academically and culturally, this summer, making it one of my most memorable summers.”

Part III(e). MIT-EECS/MISTI-China International Partnership

3. VI-A China M. Eng Thesis Program



Anh D. Nguyen, MIT Class of 2010
MEng student in VI-A program (2011),
Internships with Microsoft Research Asia
Research interests: human computer interface

“I could not be happier than when I met amazing people and worked on wonderful projects from making game-sharing sites for children to creating an entertaining exercise mobile app”
- Anh



Kevin Zheng
MEng student in VI-A program
MIT SB in EECS (6-2), Class of 2012
Research interests: signal processing,
electronics, system design

“I am extremely excited about my upcoming internship with Analog Devices this summer. Both signal processing and circuit design have been my biggest interests, and now I have a great opportunity to take a good look at what these are like in industry.”
- Kevin

MIT's Department of Electrical Engineering and Computer Science VI-A M.Eng. Thesis Program matches industry mentors with EECS undergraduate and M.Eng. students who have demonstrated excellent academic preparation and motivation. The program provides professional experience in an industrial environment and offers students the opportunity to do an MIT EECS master of engineering thesis with the supervision of both company engineers and MIT faculty. With today's global network of product definition, design, and manufacturing, the VI-A program and MISTI work together to help these students understand practical engineering issues in a global environment.



Stephanie Hsu
VI-A Analog Devices, Shanghai '08

“Research is about working together to solve tough problems, and working in diverse teams helps us explore all sorts of possibilities. I gained a new appreciation for the challenges faced by multinational research teams as well as how much they can achieve together working effectively around the clock.”
- Stephanie

Part III(e). MIT-EECS/MISTI-China International Partnership



“My company was Microsoft Research Asia and I worked with in a group that researched sensing on the mobile platform. My project was writing an app that I dubbed OfficeFit. The app ran in the background on a smartphone and used 3-axis accelerometer sensing to determine what activities the user was doing during the day in the office. The app would send alerts reminding the user to live a healthier and more fit lifestyle, for example, taking the stairs instead of the elevator, or taking periodic breaks from sitting in a chair. I enjoyed the environment and culture of Beijing and had many chances to go out and travel with the local interns as well as MIT students. We all lived in the

same apartment complex so it was easy to meet up and hang out. I was able to visit several cultural sites (Great wall, Forbidden Palace, Summer Palace, 后海, Silk Street), experience Beijing nightlife (karaoke, 三里屯), and eat a lot of delicious food. In July, I took a week-long trip to Shanghai to visit my family and see the World Expo. I also improved my Chinese by quite a bit from spending time with the local interns.”

- Cyril Lan, M.Eng, 2012 | Microsoft Research Asia

“Because research is fundamentally about solving difficult problems, and such challenges exist for everyone everywhere, there is no better way to explore the unknown than through the combined perspectives and efforts of researchers with completely different styles and cultures. Through the EECS VI-A International Program, I worked with inspiring friends and colleagues at Google Beijing this past summer. This experience has shown me the hope that lies in our collective human ingenuity.”



- Jon C. Chu, M.Eng. '09 | Google, Beijing summer

Appendix

Sample Host Companies

AbMart Shanghai, AdImmune, Akzonobel, American Institute in Taiwan, Analog Devices, Asian Development Bank, ASTRI, BNP Paribas Peregrine, Caterpillar, China Renaissance, Coca-Cola, DFJ DragonFund, EMC, Google, HiSense, Hong Kong University of Science & Technology, HP, Lenovo, Mettler Toledo, Microsoft Research, Motorola China Software Center, PriceWaterHouseCoopers, Qualcomm, Schlumberger, Shanghai Origin Logistics, SinoCellTech, Taiwan Semiconductor Manufacturing Corporation, Tsinghua University, United Nations Industrial Development Organization, VmWare, Zhejiang University, HP, China Renaissance, Cambridge Energy Research Associates, and many others.



Sample Host Academic Institutions

Chinese Universities

- Dalian University of Technology
- Fudan University
- Fuzhou University
- Huazhong University of Science & Technology
- Institution of Vocation Engineering, Hong Kong
- Kunming University of Science & Technology
- National Taiwan University
- Peking University
- Qinghai University, Xining
- Sichuan University, Chengdu
- Southwestern Uni. of Econ. & Finance, Chengdu
- Tsinghua University
- University of Hong Kong
- University of Science & Technology of China, Hefei
- Xi'an Jiaotong University
- Yuan Ze University, Taiwan
- Yulin University, Shaanxi
- Zhejiang University, Hangzhou

Chinese Secondary Schools

- Anxian Middle School, Mianyang, Sichuan
- Guangxi Normal Middle School, Guilin, Guangxi
- High School Attached to Zhongshan University, Guangzhou, Guangdong Province
- Yinghao College, Guangzhou
- Yunnan Nationalities High School, Kunming
- Xi'an Gaoxin No. 1 High School, Shaanxi Province
- Yuan Ze Uni. Summer High School Camp, Taiwan
- Zhuzhou No. 8 High School, Hunan Province



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