Israeli innovations, like MIT science and technology, shape our lives in the 21st century—from mobile phone technology, voicemail and drip irrigation to conserve water, to renewable energy solutions and the ingestible pill camera to diagnose cancer. Spend a day at MIT, and you’ll notice that hands-on learning and out-of-the-box thinking pervade the Institute. The Israeli culture and economy, built on teamwork, initiative and innovation, is a great match for the MIT ethic. The MISTI MIT-Israel Program facilitates dynamic connections between the thinkers and ideamakers of the MIT community and their counterparts in Israel.

› MISTI MIT-ISRAEL Program
MISTI MIT-Israel Program
Annual Report 2011-2012

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Molly Schneider, Administrative Assistant, MISTI MIT-Israel
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I. Overview

“As the world calls out for answers to questions more complex than ever before, MIT catalyzes change, delivers solutions, and innovates for tomorrow.”
- Global MIT

Beginning in 2007, the MISTI MIT-Israel program has worked towards the goal of recruiting, selecting, and placing high achieving students in internships in a country marked by innovation, entrepreneurship and cutting-edge research. As our fifth year draws to a close, it is our pleasure to present the 2011-2012 annual report in order to provide a comprehensive account of our past and present activities, successes, and future goals.

Again in 2011-2012 the MISTI MIT-Israel program has grown and developed. Participating students grew this year from 50 to 68, for a total of 205 since the launch of our pilot in 2005.

66 students completed internships, while 2 attended month-long Hebrew immersion Ulpan.

Participants were drawn from 16 academic departments, and a broad range of academic levels ranging from freshmen to PhD.

The MISTI MIT-Israel program is part of the MISTI organization (MIT International Science and Technology Initiatives). To date, MISTI has sent almost 5000 students abroad, and awarded 254 grants to MIT faculty via MISTI Global Seed Funds. In addition to MISTI MIT-Israel, MISTI comprises of thirteen other programs (Brazil, Chile, China, France, Germany, India, Italy, Japan, Korea, Mexico, Singapore, Spain, and Brazil) and several cross-MISTI initiatives.
The MISTI organization is 27 years old and follows in the rich and historical tradition of “Mens et Manus” (“Mind and Hand”); that is, real-world engagement through the pairing of ideas, innovation, and research with action, practical applications, and testing. In order to fulfill the mission of the Institute, address the greatest problems of the 21st century, and adapt to an increasingly globalized marketplace, this concept needs to be applied and expanded globally. “Mens et Manus et Mundus,” Mind and Hand and World, represents an institution-wide drive to enable students to serve, succeed and lead in the global environment.

The goal of MISTI is to internationalize MIT education and research by preparing students for leadership in careers that go beyond national boundaries and, furthermore, to serve as a national benchmark for international education through its unique programmatic structure. More specifically, MISTI aims to educate the next generation of “globally cognizant” engineers and scientists.

The MISTI Model

MISTI MIT-Israel employs a unique programmatic infrastructure to deepen international learning at MIT, and to accomplish its ambitious learning objectives.

Apply
- Highly selective application process
- Submission of cultural essay and statement of personal and professional goals, interview, resume and recommendations

Predeparture Preparation
- A comprehensive preparatory "tool kit" (e.g. for-credit Israel Course, Hebrew) Details below.

Placement Process
- Personalized internship matching

In-Country Experience
- Hands-on experiential learning --> Education linked to Research
- Generation of new knowledge across national and cultural boundaries
- Development of a broader skillset to act on this new knowledge
- MIT alumni matches (via the Alumni club of Israel)
- In-country essay, 5-Day Seminar, Final Project/Report

Opportunities Upon Return to MIT
- Mentorship
- MISTI Ambassador
- Minor in Applied International Studies
- Continuing Hebrew
- On-campus activities related to the country of interest open to all students
- Continued Interaction (e.g. MISTI 2.0)

Global Career
Benefits of the MISTI Model

During MISTI internships, students gain an appreciation of their discipline in a broader cultural and socioeconomic context without sacrificing academic rigor. A broad cross-section of MIT students is able to build a meaningful understanding of different regions of the world and construct deep local relationships which constitute a basis for lifelong interaction. Before departure students are provided with a series of skills which facilitate intercultural awareness and teambuilding across national borders. Hands-on experiential learning, problem-solving, exposure to difference pedagogies, curricula, styles of research, educational systems, etc. are crucial features of the MISTI experience. In addition, MISTI programs initiate and strengthen international collaborations and connect MIT with international centers of innovation, by employing students as global, intellectual and cultural bridges. Here students may be provided with opportunities to aid in the development of technologies that address the most important problems facing the world, such as energy, health, clean water, infrastructure, etc. MISTI also provides concurrent activities on the MIT campus related to the country of interest to build a community of those interested in specific countries.

Why Israel?

Israel is a global leader and center of innovation and entrepreneurship. Israel spends more on civilian research and development than any other country\(^3\), and also has one of the most educated populations in the world (including the highest density of engineers and scientists)\(^4\), despite limited local resources and a very challenging political environment. Israel also has the greatest number of patents per capita in the world\(^5\), has the highest concentration of high-tech startups after Silicon Valley\(^6\), and is ranked 2\(^{nd}\) for the most foreign companies traded on NASDAQ after the China\(^7\). Israel’s universities are ranked among the top in the world and provide MIT students with technical experiences on par with those available on campus. Israel is unique in that it also can provide students with a rich and deep cultural experience through its long history. MIT has many connections to Israel via the several hundred MIT alumni in Israel\(^8\), dozens of Israeli graduate students on campus, and the many research collaborations between MIT and Israeli scientists.

This year, Israel has been ranked as 17\(^{th}\) globally in the Global Innovation Index (GII), and 1\(^{st}\) in its region. The same report ranked Israel as first in Research & Design, 4\(^{th}\) in Knowledge Workers, 6\(^{th}\) in Knowledge Creation and 9\(^{th}\) in Information and Communication Technologies.\(^9\)
This year’s *Global Competitiveness Report* (GCR), as released by the World Economic Forum, ranked Israel favorably in many categories. Overall Israel was ranked 22nd globally, climbing two ranks from last year. Israel was ranked considerably higher than this when judged by specific criteria relevant to the MISTI programs.¹⁰
II. Internships

In AY 2011-2012, 68 MIT Students participated in the MISTI-MIT Israel Program. Participation increased by over one-third from AY 2010-2011. Students were selected from 16 academic departments (i.e. Aeronautics and Astronautics, Architecture, Biological Engineering, Brain and Cognitive Sciences, Chemical Engineering, Civil and Environmental Engineering, Economics, Electrical Engineering and Computer Science, History, Materials Science and Engineering, Nuclear Science and Engineering, Mathematics, Mechanical Engineering, Physics, Political Science and Urban Studies and Planning) and from a variety of academic levels.

MISTI MIT-Israel Class of 2011 (July 2011), Jerusalem, during 5-day Israel Seminar
Anirudh Arun, Tel Aviv University

Prof. Yaakov Tischler and Jelimo Maswan, Bar Ilan University

Toks Fifo, Keter Plastic

Talya Wasserman, Intel

Elian Pusceddu, BrightSource Energy

Jessica Shi, Bar Ilan University
Internship Outcomes
This year we have made efforts to collect information regarding past internship outcomes and deliverables. The following are a selection of several of these outcomes as reported to us by hosts and alumnae.

**Joint Publication – Host Professor Yosi Kost and intern Janice Jang**

Work of MISTI MIT-Israel intern Janice Jang, 2011, hosted by professor Yosi Kost, has been included in the publication: Effect of ultrasound and chemical penetration enhancers on transport phenomena of the chorioamnion membrane, which was selected for presentation at the 7th annual meeting of the Israeli chapter of the controlled release society (ICRS) in October 2010, Haifa, Israel.

**Co-authored Paper – Host Professor Jack Gilron and intern Kevin Wong**

Student Kevin Wong, 2011, hosted by Professor Jack Gilron, is co-author on a paper about early warning detection of calcium carbonate scale for Journal of Membrane Science. The publication is entitled: Ultrasonic sensor control of flow reversal in RO desalination. Part 2: Mitigation of calcium carbonate scaling, and has been presented at several conferences.

**Professor David Faiman collaborates with two past MISTI MIT-Israel Interns**


Sam Bader, 2011, has also collaborated with Dr. Faiman, contributing to: Strobach, Bader, Faiman et al. “CPV vs. PV From a Grid-matching Perspective.” Presented (by David Faiman) at the Eighth International Conference on Concentrating Photovoltaic Systems.
Many of the interns from this year’s cohort also report foreseeable concrete deliverables. As self-reported in surveys and trip reports, students discuss the following outcomes:

A picture of the project on which Ofir Nachum, 2011, worked, under Professor Amir Karniel, has been featured on the cover of the September issue of the IEEE ToH. Ofir contributed to this project during his stay, and has been acknowledged in the paper, entitled: Toward Perceiving Robots as Humans: Three Handshake Models Face the Turing-Like Handshake Test.

**Ofir Nachum Contributes to Published Study under Professor Karniel**

**Former Intern Acknowledged in Paper**

MISTI MIT-Israel intern, Maja Rudolph, has been acknowledged for her work doing background research under the supervision of Professor Zeev Rudnick. The paper, recently accepted for publication, will appear in the journal Communications in Mathematical Physics and is entitled: Statistics of Wave Functions for a Point Scatterer on the Torus.

**Student Presents at ICUC8 Conference**

Jaime Young, MISTI MIT-Israel program alumnus, gave a presentation at ICUC8 entitled: Climatic and environmental planning of the Roman city according to Vitruvius and its application in the Holy Land. The presentation, based on a paper co-authored with Professor Oded Pichner, will soon be submitted for publication.
Foreseeable Deliverables from Internships 2011-2012

This year’s cohort of interns has also reported future deliverables:

“I wrote a manuscript of a review on brain tumor radio resistance for a Mediterranean conference I attended this summer. The paper is being submitted to journals, and hopefully there will be an acceptance!”

- Christine Lai, Junior, Biology

“I look forward to remaining in contact with the lab in Israel in order to work on a similar project at MIT.”

- Robbie Williams, Sophomore, Biology

“My work will be used by Keter Plastic in the implementation of the packaging system on the plant.”

- Toks Fifo, Sophomore, Aeronautics and Astronautics

“I summarized my project and results in a PowerPoint presentation, so if I ever needed to present my research, I would be more than prepared!”

- Jenny Van, Sophomore, Biological Engineering

“The results from our research looked very promising. The lab will continue to explore the genes that I examined over the summer and they foresee a paper coming out of this research.”

- Anirudh Arun, Junior, Biological Engineering

“As a result of my internship, I am working on a paper.”

- Francisco Arias, Postdoc, Aeronautics and Astronautics

“I have been contacted about putting my theoretical analysis on a paper in Physical Review B.”

- Michael Gibson, Junior, Materials Science and Engineering

“The professor I researched under hopes to be able to publish my research in the near future.”

- Alex Wassenberg, Sophomore, Aeronautics and Astronautics

“I expect to get at least 2 journal articles out of the experience and made multiple contacts during my time there.”

- Wiljeana Glover, Postdoc, Engineering Systems Division

“Especially because of my extended stay, we are hopeful that at least one journal publication will result from my efforts.”

- Qing Li, Senior, Management
MISTI Global Seed Funds

MISTI Global Seed Funds helps MIT faculty and researchers launch early-stage international projects and collaboration. Applicants are encouraged to involve MIT undergraduate and graduate students in their projects.

One recipient of MISTI Global Seed Funds is the NEXCITY project. An international collaboration between the Tel-Aviv University Laboratory for Contemporary Urban Design and the City Design and Development Group at MIT’s Department of Urban Studies & Planning. Involving MIT and Tel-Aviv University faculty as well as 15 MIT and TAU students, the project serves to envision, plan, and design prototypical sustainable residential communities for Israel 2025. The long term research strives to plan, design, and retrofit existing residential communities to become low carbon, ecologically responsive, incorporate new technologies, and generally enhance the livability and self-reliance of local residents and potential newcomers.

MIT Students spent 10 days in Israel in January 2012 on an initial workshop exploring Kiryat Gat and initiating proposals. TAU students came to MIT in the Spring 2012 and work continued over the summer. Please take the opportunity to read more about the project at http://kiryatgat.mit.edu/

MIT and TAU students, faculty and Kiryat Gat City officials discussing various plans for the city. January 2012 Kiryat Gat.
Global Teaching Labs Pilot Program

Sandra Abago, Avital Fischer, Kathleen Kraines & Tracey Hayse participated in the pilot program for our Global Teaching Labs Program. This experiential teaching program attracts top students looking to share MIT’s unique approach to science and engineering education.

In a collaboration between MIT, Israel Sci-tech Schools and ORT Braude College of Engineering, our students were matched with Israeli ORT high schools in the Karmiel area for four weeks in January. At each location students prepared tailored courses on Physics, Chemistry, Computer Science, English, Mechatronics, Social Sciences, Biology and Engineering that complemented the school’s curriculum and highlighted MIT’s hands-on approach to education.

Hosts reported a gained confidence in participating students as a result of Global Teaching Labs. In explaining her decision to participate in the pilot, one host said, “We want our students to meet engineering students from the best institutes in the world so that they will serve as role models to show where studying technology can take them.”

The MIT students also reported a rewarding experience, and positive benefits to participation. Junior Mechanical Engineering major Kathleen Kraines has said of her time abroad, “while MIT may be an unparalleled place to learn, the world teaches far more than any institute could hope to.”
III. Student Profiles

Alex Wassenberg, Sophomore, Aeronautics and Astronautics
Host: Professor Eran Sher, Ben Gurion University
Project: Testing and experimentation on a micro IC engine for miniature aircraft
“I learned a lot about up-and-coming micro power systems which more and more are being implemented in the aerospace industry.”

Alexis Wheeler, MS Candidate, Urban Studies and Planning
Host: Professor Tali Hatuka, Tel Aviv University
Project: Research primarily focused on urban regeneration strategies and the creation of a new flexible planning tool to be applied within the industry

Alyssa Mensch, Senior, Mathematics
Host: Professor Ido Dagan, Tel Aviv University
Project: Using a textual entailment engine for question answering
“MISTI Israel has been a great opportunity for me to learn more about my field, get experience building software, and make new friends in a different country. Thank you, MISTI!”

Angelique Nehmzow, Sophomore, Physics
Host: Professor Yoram Dagan, Tel Aviv University
Project: Studying conductivity at oxide interfaces
“MISTI-Israel is a fantastic opportunity to combine research in a top institution with exploration of a country I have never been to.”
Anirudh Arun, Junior, Biological Engineering  
**Host:** Professor Yechiel Elkabatz, Tel Aviv University  
**Project:** The characterization of neural stem cells and their developmental programs, specifically at the self renewing rosette stage  
“This internship taught me much about an exciting area of biological research. The knowledge, skills, and techniques I learned from this experience will truly be invaluable as I progress into my future career as a physician.”

Bari Rosenberg, Sophomore, Biology  
**Host:** Professor Sigal Ben Yehudah, Hebrew University  
**Project:** Intercellular connections among microbial cells; developmental processes in bacteria  
“Living and working in Jerusalem made the city feel like home, and I could not be more thankful for the experience I had doing MISTI-Israel.”

Benjamin Bell, Sophomore, Biology  
**Host:** Professor Ilana Natan, Ben Gurion University  
**Project:** Screening with a number of common anti-necrotic drugs to look for synergistic repression of necrosis in cancer cells treated with cyanide to induce necrosis  
“I’ve enjoyed the opportunity to get into another person’s head and see the world through their cultural lens and perspective.”

Brett Lazarus, Senior, Electrical Engineering and Computer Science  
**Host:** Amdocs  
**Project:** Building a novel user interface for business cataloging software  
“Israel offers a great mix of culture, religion, travel, beauty, and hi-tech. This summer I wanted more than just a conventional internship.”
Brianna Jones, Sophomore, Brain and Cognitive Sciences
Host: Professor Miriam Zackenhous, Technion
Project: Working with a brain-machine interface
“MISTI MIT-Israel provides the opportunity to experience Israeli culture firsthand, all while working on an interesting project”

Christine Lai, Junior, Biology
Host: Professor Rahamim Ben-Yosef, Rambam Hostpital, Haifa
Project: Radiation Oncology
“It was fascinating observing health care in a different country while I was shadowing physicians. The lab work I did was also the most clinical I have done, and it was a good transition for me, as I am planning to go into medicine.”

Christopher Rhie, MS Candidate, Urban Studies and Planning
Host: Professor Tali Hatuka, Tel Aviv University
Project: NexCity: Refigured Urbanism for the New Century
“Israel’s urban communities offer excellent opportunities to advance sustainable development through innovative practices.”

David Wyrobnik, Freshman, Electrical Engineering and Computer Science
Project: Hebrew Ulpan, Haifa University
“Knowing another language and another culture opens doors to a different crowd.”
Divya Agarwal, MBA Candidate, Management
Host: SimilarGroup
Project: Worked with the start-up SimilarGroup as they prepared to launch their first 'big' web product for SMBs (small to medium sized businesses).
“I have always been curious about Israel, I am intrigued by the politics and history.”

Dominic Dawkins, Sophomore, Management
Host: Professor Warren Young, Bar Ilan University
Project: Studying the Modigliani-Miller theorem, its evolution and impact
“I learned to leave no stone unturned when it comes to doing things you are interested in.”

Ebenezer Sefah, Freshman, Electrical Engineering and Computer Science
Host: Galilee and Ecamp Foundation
Project: Volunteer English Instruction and camp counseling in international technological summer camp
“MISTI - Israel is more than just internships. It is a means of understanding and enjoying a culture and its people so much that you are driven to make an impact in their lives before it ends.”

Elian Pusceddu, Junior, Mechanical Engineering
Host: BrightSource Energy
Project: Debug and further develop (in C++) pre-existing in-house software that served for the dynamic modeling and performance simulation of a Concentrated Solar Power plant
“I developed my programming skills in C++ and I learned about real issues in power plans and how these affect design.”
Elisabeth Rosen, Sophomore, Brain and Cognitive Sciences  
**Host:** Professor Judith Aharon, Rambam Hospital  
**Project:** Cognitive Neurology

“I learned communication with a supervisor is key to getting the most out of any internship.”

Elisha Yadgaran, Freshman, Chemical Engineering  
**Host:** Professor Shachar Richter, Tel Aviv University  
**Project:** Designing biomedical devices and developing quantum devices from organic compounds

“MISTI provided me with the perfect balance of an amazing internship and a trip abroad.”

Emily Brown, Junior, Biology  
**Host:** Prof. Dani Peer, Tel Aviv University  
**Project:** Gene silencing in mammalian cells through siRNA delivery via nanoparticles

“MISTI Israel is a great program that combines prestigious internships with unforgettable opportunities to travel and live in a completely new environment!”

Esmeralda Romero-Lorenzo, Sophomore, Biological Engineering  
**Host:** Professor Raphael Lamprecht, Haifa University  
**Project:** Investigate roles of signal transmission between neurons, changes in neuronal connectivity and morphology, signal transduction and gene expression in fear memory formation

“Israel is a world leader in science, technology and innovation. It seemed like the perfect place to be for me to grow as a scientist while exploring a new culture.”
Zach Stauber, Senior, Materials Science and Engineering  
**Host:** Media Innovation Lab (miLab), IDC  
**Project:** Worked on augmenting the experience for children playing with dolls. Added sensors and programmed a microcontroller so the dolls would be able to identify other dolls and know the other dolls.  
“MISTI Israel is a great experience.”

Hansol Kang, Freshman, Chemistry  
**Host:** Professor Arie Zaban, Bar Ilan University  
**Project:** Test and figure out which materials at what concentration and component create better photovoltaic cells  
“MISTI-Israel is a great opportunity for students to branch out into the world and have a direct impact on the world.”

Jack Newman, Junior, Electrical Engineering and Computer Science  
**Host:** Professor Shlomi Dolev, Ben Gurion University  
**Project:** Working on multiplication-free holographic coding  
“I learnt how to work for deadlines, and that work is not something confined to a certain amount of hours a day, rather it’s something adaptable that changes due to current deadlines.”

Jackson Prestwood, Junior, Chemical Engineering  
**Host:** Professor Yosi Kost, Ben Gurion University  
**Project:** Novel application of potato starch as a possible carrier for siRNA to cancer cells  
“MISTI Israel gave me the confidence to work abroad and feel that I can contribute to international research.”
Jelimo Maswan, Sophomore, Electrical Engineering and Computer Science

Host: Professor Yaakov Tischler, Bar Ilan University

Project: Molecular Phototonics

“I am interested in the current advancements in the solar power industry. Where better to expand my knowledge of this field than in Israel, home to one of the leading solar industries in the world?”

Jennifer Park, Sophomore, Biological Engineering

Host: Dr. Ofer Shpilberg and Dr. Galit Granot, Tel Aviv University

Project: Study of Pyk2 expression at the RNA and protein level in CML cell lines and patients

“After working at a lab in a hospital, I learned how it is different from a research lab. In addition, the project I had in Israel was so interesting that now I am interested in Hematology.”

Jenny Van, Sophomore, Biological Engineering

Host: Professor Eli Heldman, Ben Gurion University

Project: Development of novel nano-sized bolaamphiphilic vesicles for targeted drug delivery

“MISTI MIT-Israel has been one of the most worthwhile experiences I’ve ever had. The 12 weeks I have spent here have been a non-stop journey of cultural immersion and self-discovery.”

Jessica Fessler, Sophomore, Biological Engineering

Host: Professor Robert Marks, Ben Gurion University

Project: Working on the construction of biosensors as alternative bioanalytical tools

“Choosing to participate in MISTI-Israel has been one of the best decisions I’ve made during my time here at MIT. The experiences I’ve had and the friendships I’ve made abroad are ones that I will never forget.”
Jessica Shi, Freshman, Biology
Host: Professor David Anaki, Bar Ilan University
Project: Rehabilitative work with mildly cognitive impaired patients
“MISTI-Israel provided me with one of the best summers of my life. I went in knowing next to nothing about Israel, and left with an appreciation of different cultures and a deeper understanding of the Middle East.”

Jin Hao Wan, Senior, Electrical Engineering and Computer Science
Host: Professor Yuval Rabani, Hebrew University
Project: Analysis of belief-propogation algorithms
"It's a great choice for students looking for studying/working-abroad experience. You can be matched to a great host and learn a ton."

Jonathan Surick, Freshman, Chemical Engineering
Host: Professor Yosi Avron, Technion
Project: To develop an algorithm and a program that will characterize separable two qubit states through their entropy
"MISTI Israel gave me the chance to see Israel as not just a tourist destination but as somewhere to actually live and work while still having fun and exploring.”

Jordan Santana, Freshman, Chemical Engineering
Host: Professor Rachella Popovtzer, Bar Ilan University
Project: Synthesis and categorization of nanoparticles of various sizes
“Besides the extensive opportunity to work in an international top-tier research institute, Israel in itself seems radically different from any of the places I have yet had the privilege to visit.”
Kenny Lam, Junior, Physics  
Host: Professor Josue Snitzman, Technion  
Project: Developing computational fluid dynamics of respiratory flow  
“MISTI Israel was simply a life-changing experience that helped me to break cross-culture barriers!”

Kimberly Sparling, Senior, Civil and Environmental Engineering  
Host: Netafim  
Project: Researching potential collaborators or investors interested in drip irrigation and water conservation  
“Through MISTI-Israel I was able to experience living in the Middle East for three months.”

Lindsay Stone, Junior, Civil and Environmental Engineering  
Host: Professor Rafi Linker, Technion  
Project: Monitoring pesticide release from soil  
“This was the most fun and rewarding summer I’ve ever experienced! I wish I didn’t have to leave.”

Margaret Cunniff, Junior, Brain and Cognitive Sciences  
Host: Professor Daniel Kaganovich, Hebrew University  
Project: Studying the role of protein aggregation in neurodegenerative disease  
“This was an incredible opportunity to interact with different people and different cultures and to think about the way the world works.”
Marie Perrone, Senior, Materials Science and Engineering  
**Host:** Professor Noam Shomron, Tel Aviv University  
**Project:** Bioinformatics research, analyzing data from next generation genome sequencers.

Neta Batscha, Senior, Biology  
**Host:** Professor Shaul Dollberg, Tel Aviv University  
**Project:** Study of maternal breast milk with regards to preterm infants  
"In addition to gaining experience in clinical research, working in Israel has given me perspective on universal health care, which is the health care system used in Israel, as well as a perspective on the social and ethical issues in Israeli medicine."

Noa Ghersin, Sophomore, Brain and Cognitive Sciences  
**Host:** Professor Itzak Kehat, Rambam Hospital  
**Project:** Tracking protein migration in eccentric and concentric states of cardiac hypertrophy  
"MISTI is a great opportunity not just to gain academic experience, but also to connect, enjoy, and explore - a perfect fit for what MIT is all about!"

Peter Krause, PhD Candidate, Political Science  
**Host:** Professor Efriam Inbar, Bar Ilan University  
**Project:** Research the early Zionist movement in Israel as well as current security challenges in the region.  
"MIT-Israel helps to bridge the gap between American and Israeli academics by encouraging joint research projects."


Pratiksha Thaker, Sophomore, Electrical Engineering and Computer Science
Host: Google
Project: Working on image processing algorithms for 3D models
“I hope to do similar short internships abroad in the future, and my Israel experience will definitely help me in adjusting. In a practical sense, the programming and technical skills I gained during my internship will help me in my future classes and projects.”

Qing Li, Senior, Management
Host: Professor Eitan Naveh, Technion
Project: To investigate the complexities of the Israeli hospital network with a focus on the integration of management innovations
“MISTI-Israel was the perfect capstone to my MIT education. After four years at MIT, I applied and honed the skills I learnt in a field I was genuinely excited about.”

Rachelle Lim, Sophomore, Biology
Host: Professor Micha Ilan, Tel Aviv University
Project: Developing a novel culturing system to investigate autotrophic bacterial populations in marine sponges
“I was impressed by the rich cultural and scientific environment that Israel has to offer.”

Rebecca De Las Cuevas, Junior, Chemistry
Host: Professor Ira Weinstock, Ben Gurion University
Project: Helping to characterize a polyoxometalate cluster developed by a student
“MISTI-Israel was definitely an eye-opening experience for me. It was the first time I had ever been outside of the country and despite the culture shock at the beginning, it was easy to see that we’re all the same.”
<table>
<thead>
<tr>
<th>Name</th>
<th>Year</th>
<th>Major</th>
<th>Host</th>
<th>Project</th>
<th>Quote</th>
</tr>
</thead>
<tbody>
<tr>
<td>Richard Ni</td>
<td>Freshman</td>
<td>Mathematics</td>
<td>Yediot</td>
<td>Mobile App development</td>
<td>“This was my first experience working in a company. Outside of the programming skills and languages that I learned while researching and programming my pages, I also learned corporate culture and how to work under a boss.”</td>
</tr>
<tr>
<td>Robert Williams</td>
<td>Sophomore</td>
<td>Biology</td>
<td>Professor Sarit Larisch, Haifa University</td>
<td>Study of ARTS pro-apoptotic mitochondrial protein as a tumor suppressor</td>
<td>“The internship provided me with the practice I needed to approach any biological lab in order to gain more experience and explore new techniques.”</td>
</tr>
<tr>
<td>Ron Perez</td>
<td>Senior</td>
<td>Mechanical Engineering</td>
<td>Keter Plastics via Ort Braude College</td>
<td>Redesigned one of the Garden Furniture chairs for better moldability and easier assembly</td>
<td>“I love Israel, and would love to come back someday, maybe for an even more extended period of time. There are a lot of things going on here in development of engineering and design that are worth being a part of.”</td>
</tr>
<tr>
<td>Ron Rosenberg</td>
<td>Junior</td>
<td>Materials Science and Engineering</td>
<td>Professor David Cahen, Weizmann Institute of Science</td>
<td>Researching interband stands in organic semiconductors using Kelvin probe microscopy</td>
<td>“I loved MISTI Israel and I couldn’t have asked for a better summer.”</td>
</tr>
</tbody>
</table>
Sharone Small, Sophomore, Civil and Environmental Engineering  
**Host:** Professor Yoram Shifman, Tel Aviv University  
**Project:** Data analysis of traffic safety records and literature review on safety and travel behavior  
“This was the first time that I’ve lived as an inhabitant of a city; I feel like I got to know a different side of Israel than the one seen by tourists.”

Stephen McCrory, Sophomore, Physics  
**Host:** Professor Michael Rosenbluh, Bar Ilan University  
**Project:** Research in the field of quantum photonics  
“MISTI Israel opened my eyes to a new corner of the world, while offering me an exciting internship.”

Sydney Beasley, Sophomore, Civil and Environmental Engineering  
**Host:** Professor Oren Perez, Bar Ilan University  
**Project:** Literature reviews to help strengthen a paper on the comparison of how different scientific institutions maintain epistemic authority  
“Not only did I gain a professional experience, but a profound cultural experience as well. Israel is a country with great internship opportunities.”

Talya Wasserman, Sophomore, Electrical Engineering and Computer Science  
**Host:** Intel via Jerusalem College of Engineering  
**Project:** Working on the SBA (small business advantage) team  
“I had a great summer in Israel. I gained a lot both professionally and personally. Thank you MISTI MIT-Israel!”
Thomas Davison, Junior, Civil and Environmental Engineering  
**Host:** Professors Neima Brauner and Amos Ullman, Tel Aviv University  
**Project:** Environmental Engineering lab research

Toks Fifo, Sophomore, Aeronautics and Astronautics  
**Host:** Keter Plastics via Ort Braude College  
**Project:** Automation of Box Packaging Process  
Redesign of Furniture Set  
“I learned a lot about injection-molding and other manufacturing techniques. This is particularly important for me as a mechanical engineer as I begin to design with manufacturing methods in mind.”

Tomer Mangoubi, Sophomore, Mathematics  
**Host:** Haifa University, Ulpan  
**Project:** Intensive and immersive Hebrew course to better prepare myself for the Israeli workplace  
“MISTI gives me the unique opportunity to learn Hebrew, a language useful in the tech world, through immersion in Israeli society.”

Troy Niekamp, MS Candidate, Mechanical Engineering  
**Host:** Professor Avi Kribus, Tel Aviv University  
**Project:** Selective coatings for solar energy absorbers  
“I had a great summer in Israel. I gained a lot both professionally and personally. Thank you MISTI MIT-Israel!”
Tyler Mehrman, Sophomore, Aeronautics and Astronautics  
**Host:** Professor Alex Liberzon, Tel Aviv University  
**Project:** Particle re-suspension in a turbulent flow environment  
“MISTI Israel is a great program that presents students with opportunities unavailable elsewhere. I had a great experience and would definitely recommend it to others.”

Victoria McCrave, Sophomore, Aeronautics and Astronautics  
**Host:** Professor Gal de Bottum, Ben Gurion University  
**Project:** Automation of Box Packaging Process  
Redesign of Furniture Set  
“MISTI Israel was an amazing opportunity where I got to step out of my comfort zone and experience the culture of this area of the world. This would not have been possible without this program. Thank you!”

Wiljeana Glover, Postdoc, Mechanical Engineering  
**Host:** Professor Eitan Naveh, Technion  
**Project:** Examining the coordination and performance of health systems in the U.S. and Israel  
“MISTI MIT-Israel provides a fantastic opportunity to further my studies of health systems in a new setting.”

Ying Lucy Fan, Senior, Chemical Engineering  
**Host:** Professor Yaron Paz, Technion  
**Project:** Energy research focusing on photocatalysis  
“MIT-Israel changed my perspective on the international workspace. I will join the workforce a more open minded individual.”
Joshua Cohen, BS, Chemical Engineering
Host: Professor Eran Segal, Weizmann Institute of Science
Project: Applying methods in computational biology to gain a better understanding of how gene expression and silencing is regulated
“MISTI MIT-Israel not only allowed me to explore a new and exciting field that ultimately will impact my future career, but also submerged me into the culture and people of Israel.”

Michael Gibson, Junior, Materials Science and Engineering
Host: Professor Leeor Kronik, Weizmann Institute of Science
Project: Studying the properties of recently synthesized nano-particle nano-cage hybrid structures, which were previously found to demonstrate negative current at positive voltage
“There’s way too much to see just within Israel to see in just 3 months, not to mention the rest of the Middle East.”

Francisco Arias, Postdoc, Aeronautics and Astronautics
Host: Professor Eugene Shwageraus, Ben Gurion University
Project: To develop an automatic coupling procedure of Serpent 2.0 with DYN3D
“Spectacular! The opportunity to know Israel not just from a point of view of technology but the people, results in a really new vision of Israel very different than before. I encourage strongly keeping this program, I think that the big challenge for Israel is spreading a new image that commonly people have, and with this topic MISTI is a big step to make links with future entrepreneurs”

Jaime Young, MS, Urban Studies and Planning
Host: International Conservation Center, Akko
Project: Developed guide for those involved in the conservation and development of Khan esh-Shawarda that addressed the disparate needs and contested visions of all interested parties
“This project has been a joy for me to be part of and I hope to continue my involvement.”

Global Teaching Labs
For more information on Global Teaching Labs, see page 13.

<table>
<thead>
<tr>
<th>Kathleen Kraines</th>
<th>Tracey Hayes</th>
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<tr>
<td>Project: Global Teaching Labs</td>
<td>Project: Global Teaching Labs</td>
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<tr>
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<td>Avital Fischer</td>
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<td>Project: Global Teaching Labs</td>
<td>Project: Global Teaching Labs</td>
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IV. Host Remarks

The majority of our hosts were very satisfied with the students doing internships. Almost three-quarters of them are interested in hosting again next year. Several of those who could not cited conflicts of scheduling or project issues.

Below are some comments from our hosts:

“We had a wonderful experience with Robert working in my lab. His enthusiasm and dedication was admirable. He made valuable contributions to a major research project in the lab. I would be happy to have Robert as a permanent student in my lab.”

> Dr. Sarit Larisch, University of Haifa

“Our experience with the MIT-Israel internship program was great! Zach helped us invaluably to advance one of our new research projects, and the team at MISTI were always there to help with the process. Looking forward to next summer's interns!”

> Guy Hoffman, Media Innovation Lab, IDC

“We are now in a process of writing a review paper that is based on her extensive and comprehensive work. Excellent student!”

> Professor Eran Sher, Ben Gurion University

“The third student in a row, all visits were beneficial to me and to the students.”

> Professor Shlomi Dolev, Ben Gurion University

“This is a great program. MIT students not only do great on their own, they have a positive influence on their environment, and really raise the baseline to excellence.”

> Professor Yaakov Tischler, Bar-Ilan University

“Other than his nice personality, he did a great job. The project was well defined and he completed all aims. Hopefully the results from his project will be added to a paper that we are going to publish on this subject.”

> Professor Rachela Popovtzer, Bar-Ilan University

“Margaret is one of the best students I've worked with. She introduced a new model system into the lab, and paved the way for substantial future work. Within a couple of weeks she was in a position to train other students to work on her project. She's an excellent and gifted student with a lot of potential.”

> Professor Daniel Kaganovich, Hebrew University of Jerusalem
“The student had the highest technical and intellectual skills as well as work ethics. She rapidly integrated and became a part of the lab. She was highly independent following a short introduction into the project and to the different techniques. Yet, she worked in close contact with two PhD students with whom she interacted most because of their relevant dissertation topics.”

> Professor Micha Ilan, Tel Aviv University

“I enjoyed an excellent and motivated student for the summer. In less than 3 months she wrote and implemented a software package for the lab that we needed and will use for a long time.”

> Professor Izhak Kehat, Rambam Medical Center

“He helped us with a significant work that needed to be done on a relatively short timeframe. He was able to carry through a part of the task on his own and shorten the overall deliverability timeframe. Also, he contributed with his physics background to our understanding of the model.”

> Or Kroyzer, BrightSource Energy

“It was a pleasure to host Ebenezer this summer; he made an important contribution to our educational work in the Arab sector, and he himself had a great cultural learning experience.”

> Marc Rosenstein, Galilee Foundation for Value Education

“The student was bright, imaginative and was a quick learner and thinker. He brought a fresh perspective of the project he was working on and formulated new interesting problems.”

> Professor Yosi Avron, Technion

“The quality of my student from MIT was excellent. His ability to work independently with source materials in the history of financial economics clearly shows the quality of MIT’s choice of students for its internship program, and the quality of the MIT undergraduate education.”

> Proffessor Warren Young, Bar Ilan University

“Lindsay performed a lot of experimental work and produced and analyzed a lot of data. Her work greatly helped us accelerate the development and testing of our new spectroscopy method.”

> Professor Raphael Linker, Technion

"Our MISTI intern sure saved us time and money."

> Tzahi Riven, Keter Plastic
“The MISTI-MIT program provides a wonderful platform for Technion and MIT to foster grassroot collaboration at the undergraduate level. I can only support this 100%!”

> Professor Josue Sznitman, Technion

“Participating in MISTI MIT- Israel is an enriching experience not only for the student and the host but also for the members of the research group. We had very good time with a polite and reliable student who really cared for her work. We may introduce some of her results in a manuscript that is being written these days.”

> Professor Yaron Paz Technion

V. Country Specific Preparation

Hebrew.

We continued to go forward to explore ways to ensure our students capacity to have basic Hebrew skills. All of our students that did not have basic prior Hebrew knowledge took part in one of the following Hebrew trainings

- An Ulpan (Hebrew Language Class) taught once a week over the spring semester, run by MIT-Hillel, in collaboration with MISTI. The program was taught by volunteer MIT students and community members. 70 MIT students participated.
- Beginner level classes taught during IAP and the Spring as two day courses.

“Israel – History, Culture and Identity” Course

Eighty students (up from sixty last year) took this for-credit MIT course with Professor Nahum Karlinsky and Mr. Yoav Mehozy (12 credits during the spring 9 credits/semester during winter IAP). As with all MISTI programs, students need to acquire country-based knowledge in order to prepare themselves for their internship abroad. In addition to MISTI students, additional MIT students also enrolled. The purpose of this course is to give a basic understanding of modern Israel to MISTI MIT-Israel students and the general MIT student body through lectures, discussions and projects. This course introduces Israel’s history, national identity, political and legal institutions, social texture and culture. The object of this course is to familiarize students with Israel’s multifaceted aspects through lectures, discussions, film and projects. Among the topics to be explored are: the history of Zionism and the history of the Arab / Israeli conflict; Israel's political system and society; ethnic relations in Israel; Israel’s political economy. We also ran an intensive for-credit 8-hour class for Sloan Students on Israel and entrepreneurship.

Training Sessions

In addition to the course and Hebrew study we organized hands-on training sessions and retreat. We were fortunate to have new presenters this year: Preparing for Travel, Megan Dattoli, STA; MIT Library resources, Barbara Williams, Aeronautics and Astronautics Librarian and Instruction Coordinator for the Engineering and Sciences, MIT Library; Israeli Music, Eyal Shachar, Israeli musician and Media Lab student; A Road Map to Navigating Israeli Culture; Personal aims of internship; What to expect and how to prepare, MISTI MIT-Israel alumni; Leveraging your network, Slava Menn, MISTI alum and MBA 2011; Preparing for your Internship and making the most of it, Prof. Christine Ortiz, Faculty Director MIT-Israel and MISTI MIT-Israel alum Rafael Oliveria; “Tourism in Israel - Hummus And More”- Geography
VI. In-Country Seminar and Events

During the students' stay in Israel they took part in several organized activities aimed at deepening their understanding of Israeli society and widening their network.

**Five Day Educational Seminar in Israel:**
The primary goals of the five day seminar in Israel were:

a) To introduce students to Israeli politics, society and technology and their impact on Israel and Israeli behavior

b) To give students the understanding of the context and culture of a society and how it impacts the workplace in order to support them in their future global careers.

Sub-goals included:

- To tour important sites in Israel
- To encourage relationships/interactions with Israelis
- To learn from high-level, exceptional Israeli leaders
- To learn about the Israeli Cleantech sector

**Itinerary:**

**Thursday, July 5th**

- Tour of Caesarea National Park, an ancient multi-cultural center in Phoenician, Roman, and Byzantine times
- Gen. (Ret.) Danny Yatom, former Head of the Mossad, “Israel – Challenges and Opportunities"
- Pluristem Therapeutics CEO Zami Aberman and Eytan Abraham, Product Innovation Research Manager, at HaReali School-Beit Biram Campus
- Visit to Pluristem Therapeutics Facility
- Koby Peretz Concert at the Caesarea Amphitheater

**Friday, July 6th**

- Tour of Better Place Visitors Center and discussion with Oren Kassif, '06, from Strategy and Operations Dept.
- Tour of Keter Design and Mifgash (meeting) with Gavin Suss and Israel's Keter Interns
- Ascend to Jerusalem, Holy City to the world's three monotheistic religions
- Overview of Jerusalem from the Haas Promenade
- Shabbat Experience at the Western Wall (HaKotel in Hebrew)
- Shabbat Dinner
Saturday, July 7th
> Free time/visits to local synagogues for morning services
> Evening and dinner on Ben Yehuda Street

Sunday, July 8th
> Guided tour of Yad Vashem, Israel’s National Holocaust Museum
> Meet with Dr. Rachel Korazim to learn about the impact of the Holocaust on Israeli society
> Presentation and discussion with Bereaved Families Forum
> Evening with Israeli soldiers

Monday, July 9th
> Iman Kaddah, English teacher and Facilitator with the Galiliee Foundation for Value Education, Israeli Arab Community in Israel
> Tour of the Golan Heights, understanding its history and strategic importance to Israel
> Rafting at Kfar Blum, along the Hatzbani, Banias and Jordan Rivers

Photos from 5-Day Seminar 2012
Students selected comments about the 5-day seminar:
“Everything as a whole - it all fit together well and really gave a good broad perspective of Israel.”

“This experience gave me a better perspective of how Israelis feel as a community and as individuals towards historic and current conflicts. I know I'll definitely share this perspective with friends and family back home.”

“This experience brought more context to my studies/research in Israel. It has been a great learning experience.”

“I am now more motivated to take full advantage of my time in Israel. Hopefully, I will be able to bring the experiences home with me.”

“[I will] integrate my new perspective into decisions I make as a leader.”

“I learned a lot about what motivates people and how to understand others’ viewpoints. This will be very useful.”

“The highlight was definitely the talk given after we visited the Holocaust Museum. It gave a face and humanized the effects of the catastrophe, and how it has shaped Israeli society today. I was taken aback by the spectrum of Jewish perspectives that Dr. Korazim illuminated.”

“I have a lot better understanding of the area and when I read/watch news about things that are happening, I will be more prepared to interpret what I hear/read.”

VII. Additional In-Country Activities

MISTI MIT-Israel/Hillel Tech Trip for MIT students In Israel

MIT Hillel together with MISTI MIT-Israel organized a 4-day June Tech trip in Israel, led by Hillel’s Israel/Engagement Staffer, Shohana Gibbor, for MIT students in Israel on other programs. The group of eight MIT graduate and undergraduate students had the unique opportunity to see the amazing high-tech and science and technology side of Israel while exploring opportunities for internships and meeting MIT alumni. The trip included visits to MISTI MIT-Israel host companies: RAD BioMed startup incubator/accelerator, TEVA Pharmaceutical and the Center for Jewish-Arab Economic Development.
Meeting with Professor Prof. Olivier Jean Blanchard

In collaboration with MISTI MIT-Israel, Globes Israeli Business Conference hosted Prof. Olivier Jean Blanchard '41 currently the chief economist at the International Monetary Fund and Professor of Economics at MIT. Prof. Blanchard was invited to a dinner with MISTI MIT-Israel Managing Director David Dolev, MISTI students, Tim McKinley and Jaime Young, and leadership of the Alumni club in Israel, Galya Racine '02, Haim Alcalay '61, and Dan Grotsky '02.

Meeting with Prof. Manuel Trajtenberg

MISTI MIT-Israel Managing Director David Dolev and Prof. Manuel Trajtenberg, Chair of the Planning and Budgeting Committee of the Council for Higher Education in Israel meet to discuss potential MIT-Israel collaborations.

Annual MIT Alumni Cocktail Reception

"Show Me the Money:" Translating Israeli Innovation into Social Prosperity with Prof. Manuel Trajtenberg, Chairman of the National Council for Economics, Prime Minister's Office and Chairman of the Planning and Budgeting Committee, Council for Higher Education, Mr. Yehuda Zisapel, Founder and President, RAD-Bynet Group, and Mr Guy Rolnik, Founder and Editor-in-Chief, TheMarker and Deputy Publisher, Haaretz Group. Organized by MIT Club of Israel co-sponsored by MISTI MIT-Israel.
VIII. Reflection

Students had numerous opportunities to reflect upon their time spent overseas. During their time in Israel, students submitted cultural reflection essays, a project report which required from them to meet two MIT alumni in Israel and explore how their project/field fits into an Israeli and global context and end of internship surveys. Managing Director David Dolev also met with students in small groups during the in-country seminar and as a group to help process the students’ experience. Upon returning from abroad, students took part in a re-entry session to facilitate self-reflection, articulation and a deeper understanding of what students encountered and took away from their internships, relationships, and time spent in Israel.

The vast majority of students reported their international experience as life-changing in terms of the way they view themselves, Israel, MIT, the United States, and the workplace. In addition to reporting positive gains in their fields of study, students discuss a greater understanding of time management, communication in the workplace, and working under a supervisor. The students became more sensitive to communication styles and learned how to more effectively communicate in multinational teams by adjusting their own communication style to accommodate others. Numerous students reported increased self-confidence and the valuable learning experience of navigating new cultural norms and mores. Some reported the need to be more assertive in the workplace in order to overcome cultural and language barriers. A majority of students reported high satisfaction with the technical level and quality of the research projects arranged for them. Regarding the research process, the students were exposed to different academic, pedagogical, and scientific styles (e.g. one-on-one apprenticeship, hierarchical teams, etc.), interdisciplinary research, and varied organizational structures. Lastly, many stated (as well as their supervisors) that they had made significant scientific contributions and had an impact on the groups in which they were placed.

**Selected Student Comments:**

“I learned how to work in a professional setting and how to manage time efficiently.”  
> Jessica Shi

“I got to see another side of my major (and the other research done at NASA that I might be interested in).”  
> Victoria McCrave

“It was fascinating observing health care in a different country while I was shadowing physicians. There was noticeably a different physician-patient dynamic, more informal. The lab work I did was also the most clinical I have done, and it was a good transition for me, as I am planning to go into medicine.”  
> Christine Lai
“The internship provided me with the practice I needed to approach any biological lab in order to gain more experience and explore new techniques. ”

> Robbie Williams

“This was my first experience working in a company. Outside of the programming skills and languages that I learned doing while researching and programming my pages, I also learned corporate culture and how to work under a boss. ”

> Richard Ni

**IX. Evaluation and Future Plans**

The goals of the MISTI MIT-Israel Program for the upcoming year (pending fund-raising) include: building the Global Teaching Labs; increasing the number of students in the program; deepening the rigorous educational process; exploring a dedicated MIT-Israel seed fund to enable collaborations between MIT and Israeli scientists built on the MISTI Global Seed Funds model.

Students filled in pre and post internship surveys, took part in small group meetings in Israel, prepared internship reports and took part in a re-entry session upon return to campus. Israel hosts responded to monthly survey and an end of internship report. Students and supervisors had very positive and beneficial personal and professional experiences. The following improvements will be explored based on feedback from the assessment.

(1) **Preparation:**
All of the students are required to take the on-campus Israel class, training sessions and 8 hour Hebrew training (for those with no Hebrew knowledge). We will continue with all of these components but offer on-line opportunities to deepen the educational experience and offer an additional mode to fulfill requirement. We will continue to strengthen the mentorship program which we ran for the second year (with MISTI MIT-Israel alumni) by running a training session for mentees and a formal get together for mentors and mentees.

(2) **In-Country Practical Challenges:**
Finding lodging for Tel Aviv students continues to be a challenge as do in-country travel restrictions (driven by State Department Guidelines). We are continuing to work with our host institutions and other partners to find new solutions.

(3) **Internships:**
Based on past years, we did mid-internship host surveys and this was very helpful for us to be aware of any issues that came up during the internship. We will continue to emphasis strong pre-internship communication between students and hosts.
X. New Initiatives

MISTI Mentor Program Launched

After many years of implementing an unofficial mentoring program, MISTI MIT-Israel was able to participate in the launching of a formal mentorship program. The MISTI Mentor Program matches alumni with current students interning in the same country or working in the same field. This program aims to bring the mentor new tools for sharing past international experience, while further preparing mentees for their in-country experience.

Program goals:

- To offer MISTI students a supportive relationship with a peer who can help them through the preparation, internship and post-internship phases
- To offer MISTI alumni the opportunity to continue to be connected to the program, utilize the knowledge they have gained, and continue to engage with global cultural issues

Process

- Potential mentors self-select following invitation to participate
- MISTI interns indicate desire to be assigned a mentor
- Mentors complete in-person or distance training
- Mentors are provided with best practices for establishing and maintaining mentorship relationship
- Trained mentors are matched with departing interns
- Matches are made based on country, field, host and/or specific geographical location
Training

In planning this year’s trainings, MISTI Mentors sought collaborators with salient knowledge with regards to mentoring. One-hour in-person and self-guided online trainings were developed with the goal of appropriately defining the mentor relationship and establishing desired mentor qualities. Additionally, the inaugural online mentor remote training allowed students who were off-campus to prepare for their mentor role. Mentors were also equipped with strategies for effective communication, and best possible mentorship outcomes. Finally, important logistics, such as establishing contact and circumstances under which Program Managers should become involved were addressed.

Screenshots of the Online Remote Training module and MISTI Mentors Training Quiz
XI. Host Companies and Institutions

Our list of participating companies and institutions and willing to host MIT student is continually growing and currently includes:

Bar Ilan University  | Ben Gurion University of the Negev  | University of Haifa

Hebrew University  | Technion – Israel Institute of Technology  | Tel Aviv University

Weizmann Institute of Science  | Jerusalem College of Engineering  | Ort Braude College

Arava Power Company  | BrightSource Energy  | Bloomfield Science Museum Jerusalem

The Arava Power Company (APC), formed in 2006, is Israel's leading solar developer, seeks to supply 10% of Israel's electricity needs.

BrightSource Energy’s mission is to make solar energy cost competitive with fossil fuels by developing, building, owning and operating the world’s most cost-effective and reliable large-scale solar energy projects.

The Bloomfield Science Museum Jerusalem is an informal cultural and educational institution that presents exhibitions consisting of interactive exhibits on subjects of science and technology.
CJAED acts on the premise that Israel’s primary resource is its people; that Israel’s strength lies in its pluralism and democracy, and that the Arab community must be integrated into the Israeli mainstream economy and society.

The company’s mission has remained the same since the concept was first drawn on a napkin in a Boston seafood restaurant – to dramatically reduce fuel cell cost and thereby finally unlock their mass market potential.

Emefcy was founded in 2008 with a vision of fundamentally changing the energy economics of wastewater treatment.

EPOS brings advanced positioning technology to an everyday tool that people of all ages are already familiar with.

Founded in 2008, research, development and commercialization of critical EV components and their integration into turbine-powered Range-Extended Electric Vehicles.

This project aspires to turn the region into an international center for development of technologies for production of renewable energy, while at the same time making the region energy independent, and free of fossil fuel and carbon emissions by 2020.

Given Imaging is a world leader in developing and marketing patient-friendly solutions for visualizing and detecting disorders of the GI tract.

The GoAroundMe platform serves as a launching point to engage in conversations and activities with people in a nearby radius and stay connected with their friends, wherever they might be.
Galilee Foundation
For Value Education


Gizmo

GizmoMaker.com is a full service engineering firm, specializing in working with inventors and start-ups to make their inventions and product dreams come true.

Google

In Israel, Google is committed to focus on Israeli Web surfers, advertisers and Web site operators in addition to development for worldwide operations.

IMI Tami

IMI's primary goal is to expand the business of the Israel Chemicals Group by improving existing chemical production processes for "me-too" products.

Infinidat

Infinidat is a startup involved in hardware and software in the field of computerized data storage.

Intel

Intel is developing small, fast, and energy-efficient technologies to help create the next revolutionary step in mobile, desktop, and data center computing—as well as technologies that power the engine of change for our entire industry.

ISCAR

ISCAR is a dynamic full line supplier of precision carbide metal working tools, producing a wide range of carbide inserts and carbide end mills covering most metal cutting applications.

Israel Antiquities Society/International Conservation Center - Acre

The Center aims to: provide training in conservation professions; serve as a place of study for researchers and students; develop new public and community programs that target all tangible and intangible heritage values of the city.

Keter Plastic

Keter Plastic Ltd. is one of the world’s leading manufacturers and marketers of resin-based household and garden consumer products.
Kivunim

Promoting Youth with Special Needs.

Lerner Consulting

Since 1995, Lerner Consulting, Ltd. has developed Web applications for dozens of organizations around the world.

Neurophage Pharmaceuticals

The mission of neurophage is to advance the treatment of chronic neurodegenerative diseases through a novel, multi-target approach to reducing pathologic deposits misfolded proteins.

Naiot Venture Accelerator

Helps entrepreneurs translate innovative ideas into commercially-viable businesses.

Nasvax

Develops improved vaccines and immunotherapeutics.

Netafim

The global leader in smart drip and micro-irrigation solutions since introducing the world’s first drip irrigation solutions in 1965.

NDS

Creates innovative technologies that allow pay-TV operators to generate revenues by securely delivering digital content to various devices.

RAD Biomed

The incubator provides physical infrastructure, seed capital, business development and a wide range of related services to help entrepreneurs establish biomedical companies.

Rambam Health Care Campus

Northern Israel’s largest hospital and a tertiary referral center for 11 district hospitals and the North’s address for advanced surgical departments in all specialties and subspecialties.

Ramot

Fosters, initiates, leads, and manages the transfer of new technologies from the laboratory to the field.

Shatil

Increasing citizen involvement in the processes of government and the quest for equality and Justice.

Teva Pharmaceuticals

Specializing in the development, production and marketing of generic and proprietary branded pharmaceuticals as well as active pharmaceutical ingredients.
Tigo Energy designs the #1 PV solar optimizer to allow more modules on any roof, uneven string lengths and different orientations.

Tower Semiconductor manufactures integrated circuits for more than 200 customers worldwide.

Tsofen Advancing equal opportunity to minimize the inequality faced by Arab citizens of Israel by accelerating their entrance into the hi-tech industry.

Yedioth Information Technologies

YIT is in the forefront of technology in the publishing field.

Zenith Solar

ZenithSolar’s concentrated solar energy generation system is based on a new paradigm in optical design and high-efficiency solar cells.
XII. Events

This past year we sponsored or co-sponsored 17 Israel-related events on the MIT campus. Here are highlights of a few events:

**Israel, the Middle East and Technology**
*Co-organized and co-sponsored MISTI MIT-Israel, MIT Sloan’s Israel Business Club (IBC), MIT Hillel, MIT Israeli Student Association, MIT Students for Israel*

MISTI MIT-Israel was thrilled to co-sponsor this event that brought the former director of The Mossad to MIT.

Mr. Danny Yatom, former Director of The Mossad and former politician, came to MIT in November to give a talk about Israel’s technological contributions to global security and the link between the worlds of security and business.

In line with MIT’s efforts of globalization, MISTI MIT-Israel is proud to offer students an opportunity to learn about the real world applications of what they learn at the institute, and to place their international experiences within a greater global context.

**MISTI MIT-Israel Photo Contest**

MISTI MIT-Israel engaged prospective candidates, participants and alumni through various online trainings and social media initiatives in 2012. For example, the MISTI MIT-Israel Photo contest was a popular event and resulted in a collection of images of students experience. MISTI online Initiatives such as the photo contest served to increased traffic to its facebook page, broadened the user reach, and allowed administrators to interact robustly through social media.

Winner of photo contest: Benjamin Bell, Ben Gurion Intern
Examples of the spike in Facebook fans and the international reach as a result of the photo contest.

![Facebook analytics graph]

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<th>Date</th>
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<th>Reach</th>
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<th>Talking About This</th>
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<td>4.39%</td>
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Window to My World 4: Winds of Change in the Galilee

The art installation "Window to My World 4: Winds of Change in Galilee" was on display in the Rotch Library from October to December of 2011. MISTI MIT-Israel co-sponsored this exhibition, including an exhibit opening and reception.

An annual photography competition open to all residents of Israel and the Galilee Region, "Windows of My World" represents an opportunity for artists to use photography as a non-verbal means of expression to bridge the gaps inherent when communicating across lines of language and culture.

As the three previous "Windows of My World" exhibitions were held in the Lady Roslyn Lyons Gallery in the ORT Braude Academic College of Engineering in Karmiel, MISTI MIT-Israel was delighted to participate in the collaboration that brought this event to MIT.
The MIT Hummus Experience  
*Organized by MIT Hillel, co-sponsored MISTI MIT-Israel, MIT-Israeli Association*

**Hummus 101**

Workshop participants learned the secrets of making hummus from George Kirby ’79, who is well-known in greater Boston for his delicious homemade dips. Students assembled teams to work collaboratively on new and unusual hummus flavors. Each team was provided with the basic recipe, which they adapted using both traditional and unconventional ingredients (including peanut butter, garlic, lime, Tabasco and more surprises). All recipes were entered in the Taste Off to be judged by the entire MIT Community.

**Hummus Taste Off**

The MIT community was invited to vote for the best homemade hummus at MIT. In addition to home-grown recipes, participants were able to sample treats such as Rami’s falafel, Hummus ice cream from J.P. Licks, as well as samples of hummus from many major vendors.

**Hummus Tour**

MIT students were given the opportunity to tour the Tribe hummus factory in Taunton. In addition to tasting many varieties of hummus, students were witness to state of the art methods of automated packaging, food production and robotics as used on the production line.
Israel & The Arab Spring: Risks and Opportunities

Led by guest speaker Dr. Ehud Eiran, this talk addressed contemporary issues in Israel within the context of the Arab Spring. The historic changes in the Middle-East are bound to affect Israel's strategic environment and its relationship with its neighbors, in profound ways. These changes create new risks for the Jewish state, but also provide it with new opportunities. This lecture explored both, as well as some of the possible effects on the internal Israeli arena.

Dr. Ehud Eiran is a post-doctoral fellow at the Department of International Relations at the University of Haifa, Israel. Eiran held research appointments at Harvard and Brandeis Universities and is a former assistant to the Foreign Policy Advisor to Israel's Prime Minister.
XIII. Donor Acknowledgements

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