



## HIGHLIGHTS

## SHORT PROGRAMS

- ▶ 1500 professionals from more than 70 countries

## DIGITAL PROGRAMS

- ▶ Big Data Course: 8,000+ professionals from over 110 countries

## ADVANCED STUDY PROGRAM

- ▶ Graduate students from Masdar Institute of Science and Technology, Abu Dhabi and Skoltech, Moscow

## CUSTOM PROGRAMS

- ▶ Multi-term program for major energy services company

“Teaching in Short Programs is an effective way to touch the pulse of the practical world, the world outside of MIT, and in particular industry. I find the experience extremely rewarding. It is really a highlight of the academic year for me, and it gives me a lot of energy.”



**MARKUS BUEHLER**  
DEPARTMENT HEAD  
AND PROFESSOR  
CIVIL AND  
ENVIRONMENTAL  
ENGINEERING

## DEAR FRIENDS,

As we enter a new academic year, it's an appropriate time to take stock of an **amazing 12 months** we have enjoyed since the publication last year of our newsletter commemorating the 65th Anniversary of MIT Short Programs.

The **66th season of Short Programs** brought a record breaking 1,501 students from over 70 countries to the MIT campus this past summer, as mentioned in the “In Brief” section to the left. The highlight of the season was the inclusion of a portfolio of courses from the **Center for Real Estate** through a collaboration between MIT Professional Education and the Schools of Architecture and Engineering. Through another partnership, with the **Masdar Institute of Science and Technology**, we accepted Masdar graduate students into the **Advanced Study Program**, enabling the students to take graduate courses at MIT that will apply toward their own degree programs.



While we continuously appreciate the ability to serve thousands of working professionals around the world with our in-classroom and the more recently added Digital Programs, we also cherish the opportunity to welcome back **MIT alumni** who return to their alma mater—on campus or online—to gain further knowledge from MIT. For us, **MIT alumni are always a very special group** who we extend special care to. In this edition, you will hear from some of them.

You will also learn about programs we have developed specifically to engage with some of the **world's leading corporations**, as well as our preparatory work for a new online professional course on **Cybersecurity** that is sure to garner the attention of industry professionals around the world. Our very popular digital course, **Tackling the Challenges of Big Data**, is about to be offered for the seventh time following the enrollment of more than **8,000 professionals** over the last 18 months.

Finally, we mourn the loss of our longtime faculty partner, **Professor Mujid Kazimi**, who taught a Short Programs course on nuclear plant safety every summer for the last several years. He had just finished his last course with us only a few days before we learned of his sudden passing in China. The memory of this gentle soul will always remain with us.

With the hope that you will find the contents of this newsletter illuminating, we thank you for your ongoing interest in our global activities **supporting the core education mission of MIT**.

Best Regards,

**Bhaskar Pant, Executive Director**  
MIT Professional Education  
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Bhaskar Pant  
Photo by Stuart Darsch

# MIT ALUMNI FROM AROUND THE WORLD — COME BACK TO CAMPUS



**Randall Coffie Goedhoop**  
SM '05



**Jin Yong Lee**  
SB '93



**Jim Melzer**  
SM '77

In 2015, more than 70 MIT alumni attended Short Programs, including international professionals from Denmark, Germany, Greece, Kuwait, Mexico, Monaco, Peru, and South Korea. That international balance was particularly appealing to **Randall Coffie Goedhoop** (SM '05, graduate of the Department of Urban Studies and Planning), director of industrial engineering and systems engineering for ISTEM in Mexico. “The Short Programs is an amazing experience,” he said. “The attendees in my class (*Energy, Sustainability, and Life Cycle Assessment*) literally came from all over the world, which helped us all look at different topics, challenges, and problems from different perspectives. It was an intensive three-day class, and as an alumnus, I can tell you, it’s very MIT-like. There’s an excellent balance of theory and practice. Beyond the slides and references, you’re doing something hands-on and you’re developing an ability. Our course team of three professors helped us think about new methodologies and approaches, so you definitely take something with you when you return home.”

According to Bhaskar Pant, executive director of MIT Professional Education, Short Programs is an ideal way for MIT alumni to continue to draw useful knowledge from their alma mater on a lifelong-learning basis. “In many ways, MIT Professional Education has become the gateway for alumni to return to campus—but not just for a reunion or homecoming,” he said. “They’re coming back to acquire new skills, learn about the latest developments and research in their fields, and gain new

perspectives—and also reconnect with faculty and visit some of their favorite haunts around campus.”

For **Jin Yong Lee** (SB '93, Materials Science & Engineering), vice president of Samyang Holdings Corp., it was great to be back on campus visiting familiar ground, walking past landmarks and buildings from his undergraduate days.

Lee most recently completed the *Radical Innovation* Short Programs course, one of several he has taken.

“Once again, MIT is giving me the tools and discipline I need to look ahead and see where the opportunities lie for me and my company,” Lee said. “There’s a rich diversity in the backgrounds of my classmates, so I am able to learn about different industries, functions, cultures—perspectives I could never imagine in Korea. MIT has extended the breadth of my thinking.”

For **Jim Melzer** (SM '77, Department of Chemistry), technical fellow at Rockwell Collins in Carlsbad, California, MIT Short Programs represented a stimulating way to extend the MIT experience—even many years after graduating. “As an alum, I can tell you that the caliber of MIT faculty has always been superb,” he said, “and this class is no different. Sandy Weiner, (lecturer in *Technology, Organizations, and Innovations: Putting Ideas to Work* course), is an excellent instructor, and the guest lecturers were amazing. These were high-caliber individuals who are well-read and excellent researchers in their field. This has been a great experience.” ▾

## Top Short Programs Courses for Alumni

For the many alumni returning to the MIT campus for Short Programs, these courses have been the top choices in 2015:

- ▶ Machine Learning for Big Data and Text Processing
- ▶ Global Real Estate Markets
- ▶ Engineering Leadership for Mid-Career Professionals
- ▶ Technology, Organizations, and Innovation: Putting Ideas to Work
- ▶ Data and Models in Engineering, Science, and Business
- ▶ Energy, Sustainability, and Life Cycle Assessment
- ▶ Mastering Innovation & Design Thinking
- ▶ Multiscale Materials Design
- ▶ Rapid Prototyping Technology



# “PROFESSIONAL CERTIFICATE IN REAL ESTATE FINANCE AND DEVELOPMENT”

— RECEIVES HIGH MARKS



➔ TO VIEW PARTICIPANT TESTIMONIALS, VISIT: [shortprograms.mit.edu](http://shortprograms.mit.edu)

Responding to global developments that underscore the need for greater insight into real-estate markets and risk, MIT Professional Education and the MIT Center for Real Estate (CRE) recently unveiled a new program: *Professional Certificate in Real Estate Finance and Development*. This five-course curriculum, which expands the reach of CRE’s audience and increases professional participation, covers both fundamentals and advanced topics. The new certificate program enables students to gain new skills and state-of-the-art insights about the key factors and investment strategies driving real-estate markets.

Real-estate professionals from around the world gathered in Cambridge over a two-week period to earn the inaugural certificate after completing a suite of one-to-three-day classes:

- Real Estate Finance: Fundamentals
- Evaluating Real Estate Markets
- Real Estate Finance: Advanced
- Commercial Real Estate Development
- Global Real Estate Markets

All five courses are taught by MIT faculty who are experts in their respective fields. W. Tod McGrath is a lecturer in the Center for Real Estate and is president of advisoRE LLC. William Wheaton is a professor emeritus from MIT’s Department of Economics and continues to teach at CRE. Professor Albert Saiz is director of CRE and also an associate professor of urban economics and real estate. David Geltner is currently professor of real estate finance in the Department of Urban Studies and Planning and has a joint appointment in the Engineering Systems Division. Walter Torous is a senior lecturer holding an

appointment with both the CRE’s Master of Science in Real Estate Development (MSRED) Program and the MIT Sloan School of Management.

Participants in these Short Program courses learn to identify and evaluate economically viable commercial real-estate projects, evaluate investment properties, and learn finance theory and taxation principles.

“Engaging with MIT Professional Education as our educational partner made great business sense,” said Lisa M. Thoma, associate director of the Center for Real Estate. “MIT Professional Education’s talented team blended so well with our faculty to execute the overall marketing strategy. MIT Professional Education also did a great job managing public relations, overseeing the program/project management, and managing the lifecycle of our participants—from outreach to registration.”

“We’re delighted that a cohort of 37 participants completed all five courses and earned professional certificates,” said Professor Saiz, director of the MIT CRE. “Nearly 100 others were able to take at least one of the classes and were on track to earn their certificates as well. The strong response we’ve seen in this first year of the program speaks to the value we are providing to a global audience of real-estate professionals.”

“By enrolling and completing our program, our graduates are walking away with a greater understanding of the impact of global real-estate capital and its impact on pricing, international capital inflows, and how to build a global portfolio. In just weeks, they’re developing competencies that give them an immediate and enduring impact on their organizations,” added Saiz.



## “PROFESSIONAL CERTIFICATE IN REAL ESTATE FINANCE AND DEVELOPMENT” — RECEIVES HIGH MARKS

“Our audience is increasingly multi-disciplinary,” said Bhaskar Pant, executive director of MIT Professional Education, “so this program recognizes that our participants must be skilled and fluent in finance and management issues. Given the critical role that real estate plays in capital outlays and operational strategies for so many enterprises today, this new professional certificate program is particularly well-timed and well-targeted. We’re delighted to have MIT CRE’s participation and expertise to make this valuable program happen.”

This is an approach that is already impressing the program’s many participants. After completing *Real Estate Finance: Advanced*, Scott Backman, senior asset management officer of the Massachusetts Housing

Investment Corporation was enthusiastic. “The teaching forum was highly collaborative,” he said. “Professor Geltner and Dr. Torous were exceptional in sharing their expertise on the subject matter.”

Jim Fitzgerald, owner of RE/MAX Commercial of Boston, echoed those sentiments after completing the *Commercial Real Estate Development* course. “This course was excellent, and Tod is an incredible talent with commanding knowledge of real estate development,” he said. “You are not bored for one minute in three action-packed days. The guest speakers are some of the best minds in the industry.” ▼

# NEW PROGRAM UNVEILED ON CYBERSECURITY

— WITH EXPANDED BIG DATA OFFERINGS

➔ TO LEARN MORE, VISIT:  
[mitprofessionalx.  
mit.edu](http://mitprofessionalx.mit.edu)

On the heels of the highly popular *Tackling the Challenges of Big Data* course (which has been delivered five times to 8,000 professionals in more than 100 countries), MIT Professional Education is once again partnering with MIT's Computer Science and Artificial Intelligence Laboratory (CSAIL) and the Office of Digital Learning (ODL) to unveil a new digital program: *Cybersecurity*.

A team of 14 world-renowned security experts in hardware, software, cryptography, and policy will lead this new six-week online course. **Three sessions are scheduled:**

- Sept. 15–Oct. 27, 2015
- Nov. 10–Dec. 22, 2015
- Jan. 12–Feb. 23, 2016

Through video lectures and case studies, the *Cybersecurity* course will help organizations move beyond “patch and pray” defenses to gain a deeper understanding of the broad technological advances and how they apply to today's systems. Attendees also learn about important new developments that will likely shape the security landscape for years to come. By the end of the course, participants are equipped with new tools to help solve their own online security challenges.

“At stake is not only the privacy of personal data, but also the ability of our critical infrastructures to function,” said Howard Shrobe, director of Cybersecurity for MIT CSAIL. “Through our new course, participants will have the opportunity to learn about the causes of the cybersecurity problem and the most recent research developments that may ultimately solve the problem.”

*Tackling the Challenges of Big Data* will be offered twice more in 2015, starting Oct. 6 and Nov. 17. Furthermore, this course is also being adapted for Chinese and Taiwanese markets, with translated materials in Simplified Chinese for China and Traditional Chinese for Taiwan.

Registration is open for both *Cybersecurity* and *Tackling the Challenges of Big Data* at [mitprofessionalx.mit.edu](http://mitprofessionalx.mit.edu). Members of the MIT community, particularly Departments, Labs or Centers (DLCs) that have corporate sponsors/partners, are encouraged to share this information with their professional networks. ▾



# GAINING MOMENTUM

## FOR NATIONAL OILWELL VARCO AND ACCENTURE

➔ TO LEARN MORE, VISIT:  
[customprograms.mit.edu](http://customprograms.mit.edu)

**Beginning in January 2015, employees from National Oilwell Varco (NOV), a global energy services company, have been coming to the MIT campus to attend part of a year-long custom-designed professional education program called the “Advanced Technology Program.”**

Over the course of three terms, NOV employees will attend sessions based on MIT Professional Education’s Short Programs led by MIT faculty. Between terms, NOV employees will work with MIT faculty mentors on real-world projects at their home locations on topics such as innovation, data and modeling for engineering, science, and business.

Since 2004, MIT Professional Education has worked with another global corporation, Accenture, to develop deep technical skills for the company’s software

professionals. With more than 11,000 employees from more than 50 countries including Brazil, India, Japan and Mauritius certified in the Accenture Technology Academy (ATA) to date, MIT Professional Education is now working with Accenture to create a new version of the program, ATA 2.0.

MIT Professional Education, in keeping with its strong global outreach mission, will deliver a five-day program in November for middle-level managers from previously disadvantaged communities working in the manufacturing sector in South Africa. The program, based on his short course, *Product Platform and Product Family Design*, will be led by Professor Olivier de Weck, Department of Aeronautics and Astronautics. ▽



### IN MEMORIAM PROFESSOR MUJID KAZIMI

Earlier this summer, during a visit to China as part of an international advisory committee for Harbin Engineering University, a veteran Short Programs faculty member, acclaimed MIT Professor Mujid Kazimi (MS '71, PhD '73), director of the Center for Advanced Nuclear Energy Systems and professor of nuclear engineering, died suddenly of natural causes. Hailed for both his gentle nature and his lifelong commitment to improving the safety and economics of nuclear power, Professor Kazimi was a member of the MIT faculty for 39 years. For a significant portion of those years, he taught his renowned *Nuclear Plant Safety* Short Programs course and delivered his last class just two weeks before his untimely passing. “Our hearts go out to Professor Kazimi’s family, students, colleagues, and friends as they absorb this unexpected loss,” said MIT President L. Rafael Reif.

