

MIT Professional Education

Academic year 2017 marked the 15th year of operation for the office of [MIT Professional Education \(MIT PE\)](#), the School of Engineering's umbrella organization for MIT non-degree professional education programs aimed at science and technology professionals globally. All MIT PE programs (Short Programs, Advanced Study Program, International Programs, Custom Programs, and Digital Programs) deliver practitioner-oriented learning benefits to industry professionals, adhering to MIT's motto *mens et manus* and enhancing the Institute's leadership and influence globally. Teaching in MIT PE programs allows faculty members to enhance their connections with the global practitioner community.

Goals, Objectives, and Priorities

Principles that guide MIT PE activities include the following:

- Use the best of MIT expertise to meet the most current learning needs of industry professionals globally
- Extend knowledge from MIT research and discoveries to industry professionals, particularly knowledge related to priority Institute initiatives such as innovation, health, and energy
- Maintain a relatively small and nimble organization that is oriented toward customer needs and generates high net revenue

Current MIT PE goals are to continue expanding the number of courses offered, numbers of student enrollments, and faculty engagement in all of its programs, with a particular emphasis on widening its global reach to enhance the influence of MIT among professionals and companies around the world. Among the priority topics we are addressing are innovation, the Internet of Things, artificial intelligence and deep learning, and climate change, responding to industry trends and demand. To accommodate the learning needs of industry professionals outside the United States who cannot easily visit the MIT campus, MIT PE will continue to offer selected short courses in Asia, the Middle East, Latin America, and Europe. Along with in-classroom courses, MIT PE is actively pursuing delivery of an expanded portfolio of online and blended learning courses, catering to thousands of professionals around the world.

Accomplishments and Program Developments

During AY2017, MIT PE introduced 13 new three- to five-day summer courses spanning areas ranging from medicine and agriculture to maker spaces, innovation, and climate change. Included among the new offerings was MIT PE's first blended program (online plus in-classroom instruction), App Inventor for Master Trainers, aimed at K–12 teachers and led by Professor Hal Abelson of the Department of Electrical Engineering and Computer Science. Also introduced in AY2017 was the four-course Innovation and Technology certificate program, which enrolled 40 participants in its first year.

MIT PE conducted a pair of one-week custom technology programs for corporate audiences. The first, which addressed “applications security,” was delivered to Accenture technical executives in a webinar/classroom instruction format. The second was delivered to high-level banking executives including the CEO and chairman of Russia’s largest bank, Sberbank. The Russia program concluded with a dinner hosted by MIT president Rafael Reif.

As part of our international outreach effort, we announced a partnership with the Hao-Shi Food Foundation in Taiwan to provide “entrepreneurship boot camps” (in conjunction with the Office of Digital Learning) for budding food industry entrepreneurs in Taiwan and to offer the popular Radical Innovation course (taught by Professor Sanjay Sarma) to mid- and senior-level executives in the food industry. The objective is to promote safe, nutritious, and innovatively produced food in the Taiwan market.

We delivered a pair of courses to government officials as part of our education agreement signed in 2016 with the United Arab Emirates Prime Minister’s Office: Innovation: Beyond the Buzzword, taught by Professor Federico Casalegno of the School of Humanities, Arts, and Social Sciences, and a leadership course sponsored by the Gordon-MIT Engineering Leadership Program. Both courses had more than 50 attendees and succeeded in bringing together male and female, senior and junior government officers to work in teams.

Finally and most significantly, our Digital Programs (online) component, introduced in 2014, ended the year having enrolled cumulatively (over the three years of its existence) a total of more than 28,000 professionals from approximately 150 countries, generating gross revenues of over \$14 million. These figures exceeded expectations by far, confirming the high demand for online access to MIT knowledge in topics such as big data, cyber-security, data science, and systems engineering.

Funding

The program continues to be fully self-sustaining and contributes healthy revenues to faculty, the Office of the Provost, and the School of Engineering for discretionary spending.

Future Plans and Challenges

We are looking to complement our online professional course offerings with in-classroom workshops in the form of value-added blended learning models for working professionals worldwide. We also plan to expand the on-campus Innovation and Technology certificate program with new courses and faculty and are looking into adding a new certificate program addressing artificial intelligence and deep machine learning. While the demand for professional courses offered during off-summer months is increasing, we are constrained by a lack of available classroom space on campus during the regular academic year. We are currently looking at space that some of our corporate clients are willing to offer us in Kendall Square and California to partially meet that demand. Ideally, MIT PE would have a few classrooms on campus dedicated to professional education activities throughout the year.

Personnel

Patricia Casey came on board as associate director of finance, administration, and human resources, while Marsha Gordon, director of Short Programs, left to assist Professor Abelson in outreach efforts related to the App Inventor program. Tavish Baker was promoted to assistant director of Digital Programs, and Kandis Schuler was promoted to financial coordinator.

Bhaskar Pant
Executive Director