

MIT Professional Education

MIT Professional Education (MIT PE) marked its 18th year of operation as the umbrella organization housed under the School of Engineering for all nondegree professional education programs at MIT, aimed at engineering and technology professionals globally. All MIT PE programs (Short Programs, Digital Plus Programs, International, Custom, and the Advanced Study Program) deliver practitioner-oriented learning programs to working professionals and organizations, adhering to MIT's motto of "mens et manus" or "mind and hand," while also enhancing MIT's leadership and influence globally. Significantly, teaching MIT PE programs allow the participating faculty to enhance their connections with the global practitioner community, influencing their research and content of courses for degree students at MIT. MIT PE faculty come from all five schools across MIT.

Current Goals, Objectives, and Priorities

Principles that guide MIT PE activities include the following:

- Meet current learning needs of technology professionals globally with MIT faculty expertise, via a range of learning options that enhance access to learners worldwide
- Extend knowledge from MIT research and discoveries, aligning with Institute initiatives and priority areas (such as innovation, artificial intelligence [AI], and climate change), to industry professionals
- Maintain a relatively small but entrepreneurial, high-net revenue generating, high customer satisfaction-driven organization
- Deliver sizable surplus revenues to the Institute (via the provost) and the School of Engineering for discretionary purposes that include funding parts of new faculty startup packages
- Expand global outreach with strategic emphasis on supporting learning needs in emerging markets and markets with MIT connections and aspirations (such as in Africa)
- Collaborate with internal and external partners and associations to provide diverse offerings to a broad spectrum of professionals and organizations globally
- Increase diversity of all kinds among our learners and reduce traditional barriers to access such as geography, language, gender, and cost

MIT PE goals are to continue expanding course offerings, student enrollment, and faculty engagement for all its programs. Among priority topics being addressed currently are digital transformation; nanotechnology; cloud computing, software development, and IT operations; engineering leadership; cultural awareness; communications; and ethics in AI—responding to Institute priorities, industry trends, and market demand.

MIT PE continues to emphasize the importance of human skills, such as leadership and communication for technology and engineering practitioners. We are also seeing a need, highlighted by global responses to COVID-19, for decision makers to understand the importance of having a mental framework to help detect and respond to rapidly evolving situations through different cultural lenses and crisis management skills.

In order to serve the learning needs of industry professionals outside the United States who cannot easily come to the Institute, MIT PE has expanded deliveries of select courses in Africa and Latin America, in addition to Asia and the Middle East. Along with in-person courses, MIT PE continues to actively pursue the delivery of an expanding portfolio of live virtual, online, and blended learning courses, to cater to a wider universe of professionals around the world.

Accomplishments by Program

A combination of new course offerings, expansion in global outreach, increase in multilanguage programs, and a focus on diversity and inclusion, continue to attract a greater number of organizations and individual participants to MIT PE's offerings.

Digital Plus Programs

Enrollment in blended, online programs offered through Digital Plus Programs (DPP) increased by 64% this year. Participation by women continues to grow (sometimes exceeding 35%), with MIT PE receiving Spain's HIPATÍA-Enterprise and Science Award for course offerings in Spanish that successfully microtarget women in order to reduce the STEM gender gap in the Spanish-speaking world. These innovative offerings help eliminate many of the traditional barriers to professional education programs, such as cost, geography, gender, and language. As a result, more learners—in particular, women in Latin America—have been empowered with MIT knowledge and training to help succeed in the 21st century.

DPP developed a custom multilingual program in Spanish with Becas Santander—the philanthropic arm of Santander Bank—to help improve employability and technical reskilling, knowledge, and upskilling of participants from 14 countries. Due to the program's success, Santander Bank is considering expanding the program to its own employee base.

DPP also introduced courses in Portuguese, launched the Spanish language-based Ambassador Program, connecting professionals globally with past participants to provide program insights and global networking opportunities, and began delivering digital certificates of completion via blockchain technology.

Short Programs

This year, Short Programs (SP) launched two new courses, Ethics of AI: Safeguarding Humanity with Bernhardt Trout and Stephanie Jegelka, and MIT Masterclass: Technology Strategy and Innovation with Michael Davies and Blade Kotelly.

The emergence of COVID-19 paused the ability of SP to offer two-to-five-day, in-person, on-campus summer courses. To provide continued access to SP offerings and counteract global, national, and regional travel and health-related restrictions, SP staff aided by Marketing, quickly pivoted and developed a live virtual delivery strategy, with the first remotely-delivered live virtual program launching as early as March 2020. In partnership with faculty, the live virtual delivery strategy was applied to 15 summer programs that adapted very well to this approach. Participants from over 38 countries enrolled in the programs, with over 20% of the participants being women. In addition, four practitioners completed MIT PE's Professional Certificate Program in Machine Learning and Artificial Intelligence by participating solely in live virtual courses.

With the highly positive feedback received from participants, Short Programs expects to integrate the live virtual approach into its portfolio of offerings extending into the post pandemic period. The live virtual delivery experience also expands MIT PE's ability to offer Short Programs courses as an option during the academic year when there is ordinarily a constraint posed by the lack of available classroom space on campus.

International Programs

International Programs (IP) delivered MIT PE's first program on the African continent, to help civil servants in Nigeria modernize government delivered services and promote economic development. Sponsored by the Office of the Head of Civil Service of Nigeria, more than 80 top federal civil service officials from across ministries, departments, and government agencies in Nigeria gathered in the capital city of Abuja to attend this two-day, intensive course on innovation taught by Professor Sanjay Sarma.

In addition, IP launched the MIT Professional Education Technology Leadership Program, led by Senior Lecturer David Niño. This modular program, combining a blend of on-campus and collaborative online courses taught by eight MIT faculty members, instructed budding leaders and experienced practitioners on how to lead transformational growth by developing an understanding of digital technologies and innovations. Over 18 executives from eight countries and varying industries participated in the inaugural run of this program.

Advanced Study Program

MIT PE's Advanced Study Program (ASP) offers graduate students from other universities and eligible industry professionals globally the opportunity to enroll in regular, full semester MIT classes, without having to enroll in a MIT degree program. This year, ASP saw a record-breaking number of applications from 17 countries, including the highest number received from MIT employees.

Funding

MIT PE continues to be a wholly self-sustaining entity, contributing significant surplus revenues (after paying participating MIT faculty) to the Provost's Office and the School of Engineering for discretionary spending.

Challenges and Prospective Solutions

The emergence of COVID-19, and the uncertainty over how it will affect the globe and universities over the next year, will affect the ability of practitioners to participate in on-campus courses at MIT. The incorporation of the live virtual approach into MIT PE's offerings will help mitigate potential global and national health and travel restrictions by providing an attractive alternative to the in-person, in-classroom learning experience. In addition, the live virtual offering will expand MIT PE's ability to offer Short Programs courses during the academic year when there is typically a constraint posed by the lack of available classroom space on campus.

In the summer of 2020, the number of short courses and participants were negatively affected (by over 60%), including a postponement by 20% of people considering participating in Digital Plus Programs. That said, professionals globally were getting used to working and learning remotely, creating opportunities for MIT PE to develop new virtual delivery offerings across all its programs to cater to those interested in acquiring new knowledge and upskilling during an uncertain period.

Personnel

Malgorzata Hedderick from MIT Global Education joined MIT PE as director of Short and International Programs, replacing Lily Fu; Kathleen Jarvinen from Aon Hewitt and Harvard University joined MIT PE as director of communications; while Neha Deshpande from the Harvard Kennedy School assumed the position of program coordinator for International Programs.

Bhaskar Pant
Executive Director