MIT Innovation and Leadership Program

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MASSACHVSETTS INSTITVTE OF TECHNOLOGY

About the MIT Innovation and Leadership Program

Small business or large corporation, if your goal is to lead a thriving organization through today's volatile economic landscape, you must first master the ability to innovate and lead change. The MIT Professional Education Innovation and Leadership Program is a part-time program of strategic resources designed to help you do just that. Here, you can develop the pivotal fusion of skills, knowledge, and perspective crucial to leading business and technological innovation.

The MIT Professional Education Innovation and Leadership Certificate Program teaches you essential skills and effective strategies for working in and managing innovative organizations – and for starting new ones. With change as a constant, the key to success is learning how to keep pace on a global scale, to innovate, and to nurture and develop value-creating ideas across your organization.

This program provides an interactive learning experience on how to galvanize and sustain productive innovation throughout your organizations. Based on the methodology of design thinking, this program prepares today's leaders to transform the way they think about strategy and execution The program is specifically designed for forward-thinking senior executives who are ready to rethink and revitalize their approach to business and technological challenges.

Learning Outcomes

The MIT innovation and leadership programs will enable you to anticipate market needs and grow your organization's capacity to innovate, so you can improve top-line and bottom-line performance while building sustainable advantage.

Specific learning objectives include:

▮ Gain a better understanding of the tools that every innovative organization needs to succeed.

▮ Relearn a wider and deeper set of innovation skills, customized to fit both your organization's needs and your career goals.

▮ Obtain greater understanding of the best and most current research on innovation and Leadership.

▮ Enjoy learning from and engaging with some of MIT's world renowned thought leaders.

▮ Network with a talented group of peers from diverse background and industries.

Who Should Attend

▮ Leaders of innovative teams, or teams that wish to be innovative

▮ Professionals from startups and multinational companies, non-profits and the public sector

▮ Marketing, sales, finance, and project management teams

▮ Engineers and project team leads who want to be leaders

▮ Entrepreneurs and aspiring entrepreneurs

What the Program Covers

This program provides an innovative curriculum to deliver the highest level of multi-disciplinary Participants will take three courses delivered in Hong Kong, and one elective course on the MIT campus, in Boston, from a diverse range of topics offered by MIT Professional Education Short Programs. MIT Professional Education will issue a Certificate in Innovation and Leadership after the completion of three courses in Hong Kong.

INNOVATION: BEYOND THE BUZZWORD

We live in an age of exponential change in which rapid innovation is disrupting and unseating incumbent products industries, creating new technological frontiers, and challenging nearly everything we think we know about business. Think Uber and the end of the medallion taxi industry. Think Airbnb in more than twice as many countries as Hilton in less than 5 percent of the time. Think Tesla. Think Oculus. But beyond using the "buzzword," can you really define innovation?

In this course, which is centered on the concept of Design Thinking, your answer to that question will come from actually involving yourself in the activity of innovating. The course will include lectures from faculty and guests, discussions of emerging trends in human behavior and new technologies that are changing our society. Participants will engage with case studies in innovation models and methods and learning expeditions on and beyond the MIT campus. The course will go beyond traditional classroom activities to include group work and a class hands-on brainstorming through which to engage

in genuine innovating – and through that, to gain an understanding beyond the buzzword. Participants will emerge as more critical thinkers, knowledgeable about what innovation is (and is not), how it happens through applied design thinking, and how to imagine opportunities for innovative products, services, and experiences.

Active class participation, a willingness to engage with others in a creative process, and a recognition that you might have a lot to learn about innovation are all prerequisites for the class.

Participants will complete this course with a firm, practical understanding of what constitutes genuine innovation and how innovators' models, methods, and modes of thinking can be utilized to create stronger, more innovative business models, product design, customer experiences and more. With this, they will be able to approach their own teams, departments, products, and business strategies with a critical eye and develop new approaches for innovating.

Participant Benefits:

▌ Learning what constitutes genuine innovation;

▌ Understanding how to apply design thinking to transform their own organizations.

▌ Learning the fundamentals of Design Thinking, its methods and models, how it promotes innovation, and how it is different from other methods

▌ Learning the existing and emerging trends in tech, industry, and our society

▌ Understanding how the business landscape is being changed by innovators, and the strategies that make it possible to succeed in this new age

LEADING INNOVATIVE TEAMS

This course brings MIT's motto-mens et manus, or mind to hand – to life. It will challenge you to unleash your innovative strengths and emerge a stronger, more innovative leader, as long as you are prepared to think out of the box.

This course supports the development of highly self-aware leaders with the skills and knowledge required to inspire and nurture creativity and innovation that improves individual, team and organizational performance and competitive positioning.

Participant Benefits:

▌ Understand how leadership enables innovation by building strategies, structures and cultures that support creativity

▌ Recognize the links between creativity—a new or useful idea—and innovation, the execution and adoption of creative ideas

▌ Reframe the importance of identifying and defining problems to spur creativity and enable innovation

▌ Increase self-awareness of personal leadership style and its effects on group creativity and innovation that delivers results

▌ Strengthen leadership skills to create sustainable, innovative teams and cultures

▌ Increase effectiveness in building and leading high-performing teams

▌ Articulate visions that inspire others to unleash motivations central to successful innovation

RADICAL INNOVATION

Ten years ago, traditional players such as Nokia, Ericsson, and Motorola dominated the mobile phone industry. Three years ago, the hottest phones were by Samsung and Apple. This year, Samsung is recovering from the Note 7 debacle and seems to have slipped as small competitors from Asia nip at its heels.

Three elements of modern technology are making new ideas appear at such an extraordinary pace: the sheer rate of technical progress, the abundance of tools that are placing advanced

technologies within the reach of new entrants, and the extraordinary opportunities created by convergence. Not all innovation needs to progress at this rate; however, there are lessons to be learned from these events and every company should be prepared to leverage opportunities from within or to ward off threats from the outside. The objective of this class is to cover some of the salient features of innovation in the modern world and to lay out the philosophy, tools, procedures, and incentives that an organization can adopt to drive innovation.

Participants Benefits:

▌ Understand how to identify and evaluate new innovative products and businesses.

▌ Review and understand different ways to create an innovation group and culture and run a targeted innovation session within a company.

▌ Formulate a corporate plan for invention and new product generation.

▌ Approach the critical challenges in technology, product, sales, marketing, and financing a new innovative venture.

▌ Understand the supporting legal and IP requirements and how to set up an intellectual property strategy for the company.

▌ Incubate, refine, and grow a portfolio of innovative new businesses/products.

List of Courses Available at the MIT Campus

Students enrolled in this program need to attend a 2-5 day module at MIT campus offered by MIT Professional Education. List of possible courses available include:

▌ DESIGNING EFFICIENT DEEP LEARNING SYSTEMS

▌ MASTERING INNOVATION & DESIGN-THINKING

▌ BEYOND SMART CITIES

▌ MIT MASTER TRAINERS PROGRAM IN EDUCATIONAL MOBILE COMPUTING

▌ PEOPLE ANALYTICS: TRANSFORMING MANAGEMENT WITH BEHAVIORAL DATA

Who You Will Learn From: Faculty Bio

Federico Casalegno
Massachusetts Institute of Technology
Associate Professor of the Practice
Director of the MIT Mobile Experience Lab

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Federico Casalegno, Associate Professor of the Practice, is the Founder and Director of the MIT Mobile Experience Lab at the Massachusetts Institute of Technology, SHASS, program in Comparative Media Studies. He has been awarded honorary professorships by the Glasgow School of Art, University of Glasgow and the Jiangnan University School of Design in Wuxi, China. He holds a Ph.D. in Sociology of Culture and Communication from the Sorbonne University, Paris V, with a focus on mediated communication and social interaction in networked communities and wired cities.

A social scientist with an interest in the impact of networked digital technologies on human behavior and society, Prof. Casalegno both teaches and leads advanced research at MIT, and designs interactive media to foster connections between people, information and physical places using cutting-edge information technology.

Between 2004 and 2011, he had a position as Lecturer at the MIT Media Lab Smart Cities group and from 2006 until 2011 co-directed the MIT Design Lab with Prof. William J. Mitchell.

From 2004 to 2007, he worked at Motorola, Inc. as a Technology and Product Innovation Analyst, designing pioneering products, experiences and services for mobile devices. Previously, from 1994 to 2000, he worked at Philips Design on connected communities and new media environments to inform design and product experience planning.

He has published several scientific papers in peer-reviewed journals, books and articles. For the Living Memory connected community project he was awarded the Best Concept prize by the American Leading Industrial Designers I.D. Magazine, and the Silver Prize Design Concept by the Industrial Designers Society of America (IDSA).

David Niño
Massachusetts Institute of Technology
Senior Lecturer

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David Niño is a Senior Lecturer in the Bernard M. Gordon-MIT Engineering Leadership Program. Previously, he was Professor in the Practice of Engineering Leadership and Lecturer in Management at Rice University. While at Rice, he led the establishment of the university's first four-year academic certificate in engineering leadership and was Director of Leadership Rice, the university-wide leadership development program.

A former management professor, Dr. Niño has published on the subjects of leadership, ethics, organizational culture, and the development of professional management skills. He has conducted research in high technology environments and is currently interested in investigating how leadership is developed among engineers and engineering organizations.

Dr. Niño has taught leadership since 1998 at the undergraduate, masters, doctoral, and executive/professional levels. He is currently a founding officer of the Leadership Development Division of the American Society of Engineering Education and consults with professionals and executives in the areas of leadership and team development. He holds a Ph.D. in Management from the University of Texas at Austin, where he also earned his B.A., B.B.A., and M.A. degrees.

Sanjay Sarma
Massachusetts Institute of Technology
Professor of Mechanical Engineering
Vice President for Opening Learning.

Sanjay Sarma is the Vice President for Open Learning. He also leads the Office of Digital Learning, which oversees MIT OpenCourseWare and supports the development and use of digital technology for on-campus teaching and massive open online courses (MOOCs). He is also the Fred Fort Flowers (1941) and Daniel Fort Flowers (1941) Professor of Mechanical Engineering at MIT.

A co-founder of the Auto-ID Center at MIT, Sarma developed many of the key technologies behind the EPC suite of RFID standards now used worldwide. He was the founder and CTO of OATSystems, which was acquired by Checkpoint Systems (NYSE: CKP) in 2008, and he has worked at Schlumberger Oilfield Services in Aberdeen, UK, and at the Lawrence Berkeley Laboratories in Berkeley, California.

Currently, Sarma serves on the boards of GS1, EPCglobal, several startup companies including Senaya and ESSESS, and edX, the not-for-profit company set up by MIT and Harvard to create and promulgate an open-source platform for the distribution of free online education worldwide. He also advises several national governments and global companies.

Author of more than 75 academic papers in computational geometry, sensing, RFID, automation, and CAD, Sarma is the recipient of numerous awards for teaching and research, including the MacVicar Fellowship, the Business Week eBiz Award, and InformationWeek's Innovators and Influencers Award. He received his bachelor's degree from the Indian Institute of Technology, his master's degree from Carnegie Mellon University, and his PhD from the University of California at Berkeley.

MIT PROFESSIONAL EDUCATION – ALUMNI BENEFITS

After completing this course, participants will become professional alumni of MIT Professional Education and will receive all the associated benefits and courtesies listed below.

▮ Receive exclusive discounts on all future Short Programs and Digital Programs courses

▮ Networking opportunities with other individuals from around the globe working in a variety of industries interested in innovation, technology, data science, entrepreneurship, science, engineering, among many others

▮ Email distribution of our MIT Professional Education newsletter

▮ Finally, participants will join the MIT Professional Education alumni mailing list where they will receive advanced notice regarding special announcements on upcoming courses, programs, and events.

About MIT

The mission of the Massachusetts Institute of Technology is to advance knowledge and educate students in science, technology, and other areas of scholarship that will best serve the nation and the world in the 21st century. We are also driven to bring knowledge to bear on the world's great challenges.

The Institute is an independent, coeducational, privately endowed university, organized into five Schools (architecture and planning; engineering; humanities, arts, and social sciences; management; and science). It has some 1,000 faculty members, more than 11,000 undergraduate and graduate students, and more than 130,000 living alumni.

At its founding in 1861, MIT was an educational innovation, a community of hands-on problem solvers in love with fundamental science and eager to make the world a better place. Today, that spirit still guides how we educate students on campus and how we shape new digital learning technologies to make MIT teaching accessible to millions of learners around the world.

MIT's spirit of interdisciplinary exploration has fueled many scientific breakthroughs and technological advances. A few examples: the first chemical synthesis of penicillin and vitamin A. The development of radar and creation of inertial guidance systems. The invention of magnetic core memory, which enabled the development of digital computers. Major contributions to the Human Genome Project. The discovery of quarks. The invention of the electronic spreadsheet and of encryption systems that enable e-commerce. The creation of GPS. Pioneering 3D printing. The concept of the expanding universe.

Current research and education areas include digital learning; nanotechnology; sustainable energy, the environment, climate adaptation, and global water and food security; Big Data, cybersecurity, robotics, and artificial intelligence; human health, including cancer, HIV, autism, Alzheimer's, and dyslexia; biological engineering and CRISPR technology; poverty alleviation; advanced manufacturing; and innovation and entrepreneurship.

MIT's impact also includes the work of our alumni. One way MIT graduates drive progress is by starting companies that deliver new ideas to the world. A recent study estimates that as of 2014, living MIT alumni have launched more than 30,000 active companies, creating 4.6 million jobs and generating roughly $1.9 trillion in annual revenue. Taken together, this "MIT Nation" is equivalent to the 10th-largest economy in the world!

About MIT Professional Education

MIT Professional Education, organized under the School of Engineering in 2002, provides continuing education courses and lifelong learning opportunities for science, engineering, and technology professionals at all levels. Courses are taught on the MIT Campus, digitally or at locations around the world.

Worthy of note is that MIT faculty lead and teach all MIT Professional Education offerings. Some of our programs have a long history, others are relatively new.

Short Programs, formerly called the Professional Institute, draws more than 1200 global participants to campus each year to attend some 50 short courses, 1-5 days long, offered primarily in the summer.

Some of our short courses are offered in international locations through International Programs.

Companies and organizations engage MIT Professional Education to develop tailor-made Custom Programs that range from a day to a yearlong sequence of sessions, on or off campus.

About China Education Group

CEG is a premier educational service provider in Greater China. The vision that drives CEG is clear. We aim to create a unique and dynamic learning environment, providing students, executives and professionals in Greater China with an internationally recognized education of the highest quality, and equipping them to make a successful contribution to the global economy. We are committed to the highest standards of professional training and education. The ultimate goal of our high quality result-oriented team is to achieve training and education excellence. Through affiliations with world-class universities and institutions, we commit ourselves totally to excellent programs, including postgraduate degrees, graduate certificates, executive certificates, and professional development programs. These programs focus on contemporary management and technology issues, achieving a balance between theories and practical applications.

Our innovative programs are designed for working professionals who desire to obtain up-to-date management and technology

knowledge, skills, and insights. With escalating global competition and rapidly changing technology, lifelong learning is a necessity. Successful professionals continually need to update their skills and knowledge or risk falling behind. CEG also provides training and consulting services to companies and government agencies, and carries out research efforts to serve industry, government, and communities.

With convenient evening and weekend classes, students can obtain an education on their own time. Through our online programs, we also offer distance education courses that allow students to work from the comfort of their home, office, or anywhere else in the world where they can access the Internet.

A quality education through CEG will give you the opportunity to meet an exceptional and talented team of educators, consultants, administrators and support personnel who, through their dedication and competence, have created one of the largest independent providers of educational programs in Greater China.
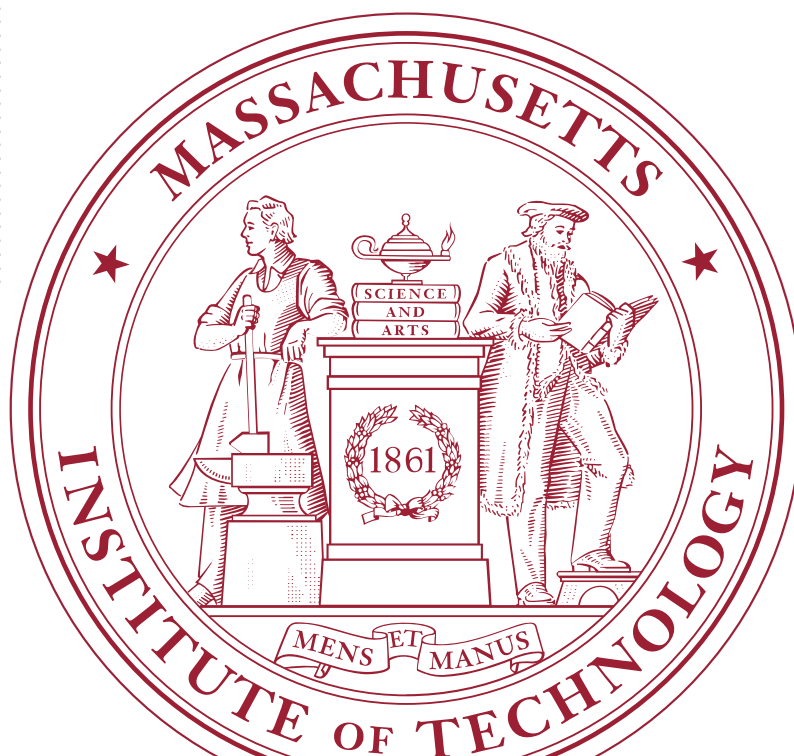
Admission Process

We select the most qualified participants from a pool of highly diverse candidates. In seeking senior executives with demonstrated leadership abilities and development potential, the Admission Committee takes into account a candidate's organizational level, management experience and professional achievements. Proficiency in written and spoken English is essential for the completion of course assignments and active engagements in class

discussion. As such the Admission Committee also may require a telephone interview as part of the admission process.

Certificate of Completion

Upon the successful completion of all Program requirements, the MIT Professional Education will award graduates a Certificate of Completion.

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