Overview
Less than ten years ago, traditional players such as Nokia, Ericsson, Samsung, and Motorola dominated the mobile phone industry. Three years ago, the hottest phones were by Apple. Last year, Samsung was considered an innovative company, Google had acquired the mobile phone division of Motorola, and Microsoft had acquired the mobile phone division of Nokia. In the last few months, Samsung 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.

Who Should Attend
The course is taught from a technology viewpoint and is targeted at technical leaders, executives in charge of product or company strategy, and product managers. Typical titles will include: CTO, Head of Strategy, CIO, Head of R&D, Product Manager, Director of Lab, Group Leader, and so on.

Learning Objectives
The participants of this course will be able to:

1. Understand how to identify and evaluate new innovative products and businesses.
2. Review and understand different ways to create an innovation group and culture and run a targeted innovation session within a company.
3. Formulate a corporate plan for invention and new product generation.
4. Approach the critical challenges in technology, product, sales, marketing, and financing a new innovative venture.
5. Understand the supporting legal and IP requirements and how to set up an intellectual property strategy for the company.
6. Incubate, refine, and grow a portfolio of innovative new businesses/products.

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ABOUT MIT PROFESSIONAL EDUCATION SHORT PROGRAMS

Short Programs offers one- to five-day intensive courses that enable you to access world-class thinking, acquire new skills, and bring innovative ideas back to work. Taught on the MIT campus by MIT faculty/researchers and experts from industry and academia, programs are offered in the following topic categories:

- Biotechnology
- Pharmaceutical
- Computer Science
- Crisis Management
- Data Modeling and Analysis
- Design, Analysis, and Manufacturing
- Energy/Transportation
- Imaging
- Innovation
- Leadership
- Communication
- Radar
- Real Estate
- Robotics
- Systems Engineering
- Sustainability
- Tribology

RADICAL INNOVATION

COURSE INSTRUCTOR

Sanjay Sarma
Sanjay Sarma is a Professor of Mechanical Engineering at MIT and MIT’s first Director of Digital Learning. Sarma was one of the founders of the Auto-ID Center at MIT, which developed many of the technical concepts and standards of modern RFID. He also chaired and helped to set up the Auto-ID Research Council consisting of six labs worldwide. Today the suite of standards developed by the Auto-ID Center, commonly referred to as the EPC, are being used by over 1,000 companies on five continents. He serves on the board of EPCglobal, the worldwide standards body he helped to create. Between 2004 and 2006, he took a leave of absence from MIT to found the software company OATSystems, which was acquired by Checkpoint Systems in 2008. He is a consultant to several companies and also serves as a permanent guest of the board of GS1.

Sanjay Sarma received his bachelor’s degree from the Indian Institute of Technology, his master’s degree from Carnegie Mellon University, and his Ph.D. from the University of California at Berkeley. In between degrees, he worked at Schlumberger Oilfield Services in Aberdeen, UK. His master’s thesis was in the area of operations research and his Ph.D. was in the area of automation. His current research projects are in the areas of radio frequency identification, IC packaging, manufacturing, CAD/CAM, machine design, RFID applications, device networking, mobile capture, and smart devices. He has over 75 publications in computational geometry, virtual reality, manufacturing, CAD, RFID, security, and embedded computing.

He is a recipient of the MIT MacVicar Fellowship, National Science Foundation CAREER Award, the Cecil and Ida Green Career Development Chair at MIT, the Den Hartog Award for Excellence in Teaching, the Keenan Award for innovations in undergraduate education, the New England Business and Technology Award, and the MIT Global Indus Award. He was selected for 2003’s Business Week ebiz 25 and Fast Company Magazine’s Fast Fifty.

PARTICIPANTS’ COMMENTS

★★ DIRECTOR OF MARKETING, SEA NG CORPORATION
“I enjoyed it immensely and look forward to more potential courses in the future.”

★★ SENIOR DIRECTOR OF SOFTWARE ENGINEERING, DEBISYS INC. DBA EMIDA TECHNOLOGIES
“One of the best investments in money and time in my life.”