This flagship MIT conference showcases a broad sampling of the Institute’s most exciting and relevant research. This year’s plenary sessions will highlight R&D strategy and the commercialization of innovation. In addition, attendees may choose among a number of parallel research tracks in line with their professional interests or technical expertise. Topics include:

- Environmental Systems Initiative
- Sensors
- Mobility/Transportation
- Technologies for the Developing World
- Building Efficiency
- Materials
- Innovations in International Health

Registration Fees:

Full Registration Fee-- $1,750
ILP Members*-- Complimentary

*Representatives from ILP member companies may attend at no charge, however a $50 processing fee will apply to each representative who fails to attend without canceling in advance. Cancellations must be received in writing via email: register@ilp.mit.edu no later than November 9, 2010.

Registration Payment Methods:

Please make checks payable to MIT. VISA, MasterCard, American Express and Discover accepted. (Payable in US dollars only.)

Cancellation Policy:

Cancellations received in writing via email register@ilp.mit.edu on or before November 9, 2010 are entitled to a full refund less a $50 processing fee. No refunds will be made after November 10, 2009. Substitutions, may also be made in writing by November 9, 2010. Any substitutions after that date should be made at the Conference On-Site Registration Desk.

Accommodations:

A block of rooms has been reserved at the Hyatt Regency Cambridge hotel near the MIT campus. Please call for reservations directly at 1-800-223-1234 or 617-492-1234. Rooms are assigned on a first-come, first-served basis, and reservations must be made no later than November 1, 2010. Please refer to the MIT ILP Research and Development Conference to receive the $149 room rate, plus local tax, single or double occupancy.

Online Registration: July 27, 2010 - November 9, 2010
2010 Research and Development Conference  
Tuesday, November 16, 2010  
Kresge Auditorium

7:30 Registration and Continental Breakfast

8:25 Welcome & Introduction  
Karl F. Koster, Executive Director  
MIT Office of Corporate Relations/Industrial Liaison Program

Plenary Session

8:30 Staying Power: Six Enduring Principles for Managing Strategy and Innovation in an Uncertain World (Lessons from Microsoft, Intel, Apple, Google, Toyota, and More)  
Michael Cusumano, Sloan Management Review (SMR) Distinguished Professor of Management and Engineering Systems  
MIT Sloan School of Management

9:15 Moving Beyond Team: The Changing Nature of Collaboration in Modern Work  
Mark Mortensen, Richard S. Leghorn (1939) Career Development Assistant Professor in Management of Technological Innovation  
MIT Sloan School of Management

10:00 Break

10:30 From Academic to Entrepreneur  
Douglas Hart, Professor of Mechanical Engineering  
MIT Department of Mechanical Engineering

11:00 Inside Real Innovation  
Eugene Fitzgerald, Merton C. Flemings (1951) SMA Professor of Materials Science and Engineering  
MIT Department of Materials Science and Engineering

11:30 R&D Management of NEC to Challenge the New Innovation Paradigm  
Botaro Hirosaki, Executive Advisor  
NEC Corporation

12:00 Lunch—Startup Exhibit

Concurrent Technology Tracks 2:00 pm to 5:00 pm
Track 1: Environmental Systems Initiative  
Track 2: Sensors  
Track 3: Mobility/Transportation  
Track 4: Technologies for the Developing World
Track 1: Environmental Systems Initiative

2:00  *MIT Environmental Research Initiative*
Dara Entekhabi, Bacardi and Stockholm Water Foundations Professor of Civil and Environmental Engineering and Earth, Atmospheric, and Planetary Sciences
Director, Ralph M Parsons Laboratory (CEE)
Director, Earth System Initiative (ESI)

2:40  *Synthetic Chemicals & Materials in the Environment: Do we need a new way to design these products?*
Philip Gschwend, Ford Professor of Engineering
Professor of Civil and Environmental Engineering
MIT Department of Civil and Environmental Engineering

3:20  Break

3:40  *What We Know and Don't Know About the Effect of Climate Change on Rainfall Patterns and Extremes*
Paul O'Gorman, Victor P Starr Career Development Assistant Professor of Atmospheric Science
MIT Department of Earth, Atmospheric, and Planetary Sciences

4:20  *A Portable and Battery-powered Seawater Desalination Device by Ion Concentration Polarization*
Sung Jae Kim, Research Scientist
Research Laboratory of Electronics

Track 2: Sensors

2:00  *The MIT Ring: History, Technology, and Challenges of Wearable Health Monitoring*
Harry Asada, Ford Professor of Engineering
Director, d’Arbeloff BioRobotics Lab
Head, Control, Instrumentation, and Robotics

2:40  *Textile Sensors*
Leah Buechley, AT&T Career Development Assistant Professor of Media Arts and Sciences
Head, High-Low Tech Group
MIT Media Lab

3:20  Break

3:40  *Chip Scale Mass Spectrometry*
Akintunde (Tayo) Akinwande, Professor of Electrical Engineering
MIT Department of Electrical Engineering and Computer Science
4:20  *Dancing on the Head of a Pin: the Coming Revolution in Nanosensors for Single Molecule Biodetection*
   Michael S Strano, Charles (1951) and Hilda Roddey Career Development Associate Professor of Chemical Engineering
   MIT Department of Chemical Engineering

**Track 3: Mobility and Transportation**
2:00  *The SENSEable City - Information and mobility networks recombine*
   Assaf Biderman, Research Scientist
   Associate Director, SENSEable City Laboratory

2:40  *Transportation Systems*
   Christopher Zegras, Ford Career Development Assistant Professor of Transportation and Urban Planning
   Lead, Transportation Systems, (MIT Portugal Program)
   MIT Department of Urban Studies and Planning

3:20  Break

3:40  *The Future is Gray, Small & Female: Disruptive Demographics and the Transportation System Tomorrow*
   Joseph Coughlin, Director, AgeLab and New England University Transportation Center
   MIT Engineering Systems Division

4:20  *Human Mobility*
   Marta Gonzalez, Assistant Professor of Civil and Environmental Engineering
   MIT Department of Civil and Environmental Engineering

**Track 4: Technologies for the Developing World**
2:00  *MIT NextLab: Partnering with Industry to Reach the Next Billion Consumers*
   Jhonatan Rotberg, Lecturer
   Founder and Director, NextLab, Center for Transportation and Logistics
   MIT Engineering Systems Division

2:40  *Household Water Treatment and Safe Storage with Ceramic Pot Filters: Production and Sales in Northern Ghana*
   Susan Murcott, Senior Lecturer
   MIT Department of Civil and Environmental Engineering

3:20  Break

3:40  *Business Opportunities to Give Economic Opportunities to Millions*
   Iqbal Quadir, Professor of the Practice
   Executive Director, Legatum Center for Development and Entrepreneurship (LCDE)
   MIT School of Architecture and Planning
4:20  *A Nervous System for Humanity: Making Health, Financial, Logistics, and Transportations Work*
   Sandy Pentland, Toshiba Professor of Media Arts and Sciences
   Head, Human Dynamics Group
   MIT Media Laboratory

5:00  Reception
     Kresge Lobby
Wednesday, November 17, 2010
Kresge Auditorium

7:30  Registration and Continental Breakfast

8:00  Welcome & Introduction
     Karl F. Koster, Executive Director
     MIT Office of Corporate Relations/Industrial Liaison Program

Plenary Session

8:05  Technology and the Future of Healthcare Delivery: Determining the Value of Innovation in an Environment of Progressively Constricted Resources
     Gary Gottlieb, President and CEO
     Partners Healthcare

8:50  Mining for Negawatts
     Sanjay Sarma, Professor of Mechanical Engineering
     Director, MIT/SUTD Collaboration Office
     MIT Department of Mechanical Engineering

9:35  Break- Kresge Lobby

Concurrent Technology Tracks 10:00 am to 12:40 pm
Track 5: Building Efficiency
Track 6: Materials
Track 7: Innovations in International Health

Track 5: Building Efficiency
10:00  Innovations in Building and Infrastructure Systems
     Sarah Slaughter, Research Engineer
     MIT Energy Initiative

10:40  No Watt Left Behind
     Steve Leeb, Professor of Mechanical and Electrical Engineering and Computer Science
     MIT Department of Electrical Engineering and Computer Science

11:20  Bright and Efficient Light Sources Built with Nanostructured Semiconductors
     Vladimir Bulovic, VanBuren N Hansford (1937) Professor of Electrical Engineering
     Director, Organic and Nanostructured Electronics Laboratory (ONE Lab)
     Co-Director, Solar Frontiers Center and Solar Revolutions Project
     Margaret MacVicar Faculty Fellow
     MIT Department of Electrical Engineering and Computer Science
12:00  *Why Materials Matter: From Atoms to Life Cycle Analysis of Buildings and Infrastructure*  
Franz-Josef Ulm, George Macomber Professor in Construction Management  
Undergraduate Officer and Chair of Undergraduate Committee (CEE)  
Director, MIT Germany Program (MISTI)  
MIT Department of Civil and Environmental Engineering (CEE)

**Track 6: Materials**

10:00  *Responsive and Conducting Polymers by Vapor Deposition*  
Karen Gleason, Associate Dean of Engineering for Research  
Alexander and I Michael Kasser Professor of Chemical Engineering  
MIT Department of Chemical Engineering

10:40  *Materials for Energy Storage*  
Yang Shao-Horn, Associate Professor of Mechanical Engineering and Materials Science and Engineering  
MIT Department of Mechanical Engineering

11:20  *Novel MEMS/NEMS Devices*  
Dana Weinstein, Assistant Professor of Electrical Engineering and Computer Science  
MIT Department of Electrical Engineering and Computer Science

12:00  *Tunable Nanoengineered Surfaces for Microfluidics and Energy*  
Evelyn Wang, Esther and Harold E Edgerton Assistant Professor of Mechanical Engineering  
MIT Department of Mechanical Engineering

**Track 7: Innovations in International Health**

10:00  *Product Development for Emerging Markets: New platforms for trickle-up innovation in healthcare*  
José Goméz-Marquéz, Instructor  
Edgerton Center  
Aya Caldwell, Program Associate  
Global Health Initiative  
Jonathan Spector, Pediatrician and Neonatologist  
Massachusetts General Hospital  
Anna Young, MIT IIH

12:40  Adjournment and Bagged Lunch