

# MIT Industrial Liaison Program

*Kenneth A. Goldman, PhD*

*Manager, Corporate Relations*

12-13 December 2006

**AREA Science Park**  
**Trieste, Italy**



Massachusetts Institute of Technology



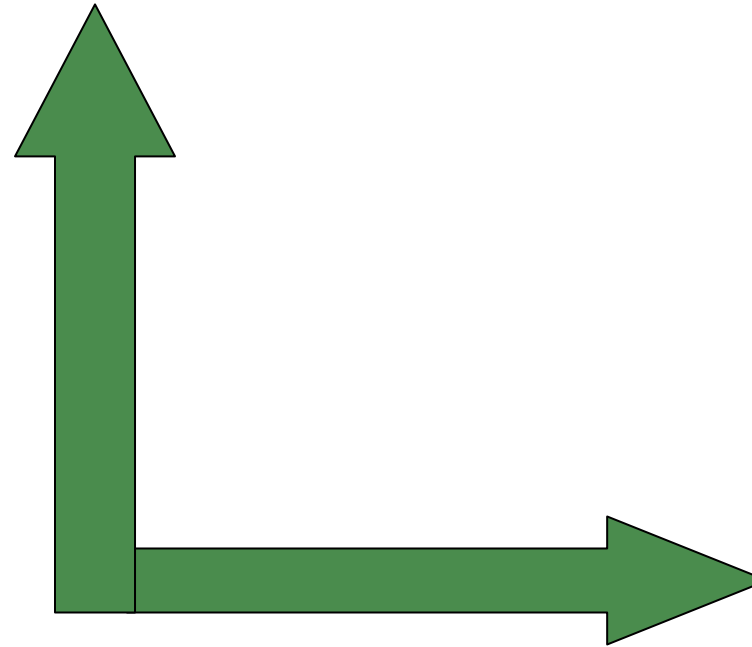
# Why Industry Comes to Academia

- **Expose management to leading-edge thinking, technology**
- **Gain insight from internationally-recognized experts**
- **Strengthen strategic decision-making:**
  - *development of new products and processes*
  - *implementation of innovative management practices*
  - *achievement of effective growth strategies*
- **Create research synergies**
- **Recruit future company leaders**

# Extend Your Knowledge Portfolio at MIT



**Extend Your  
Knowledge  
Resources**



**Extend Your Time Horizon**

***Leverage and Extend Your Resources***

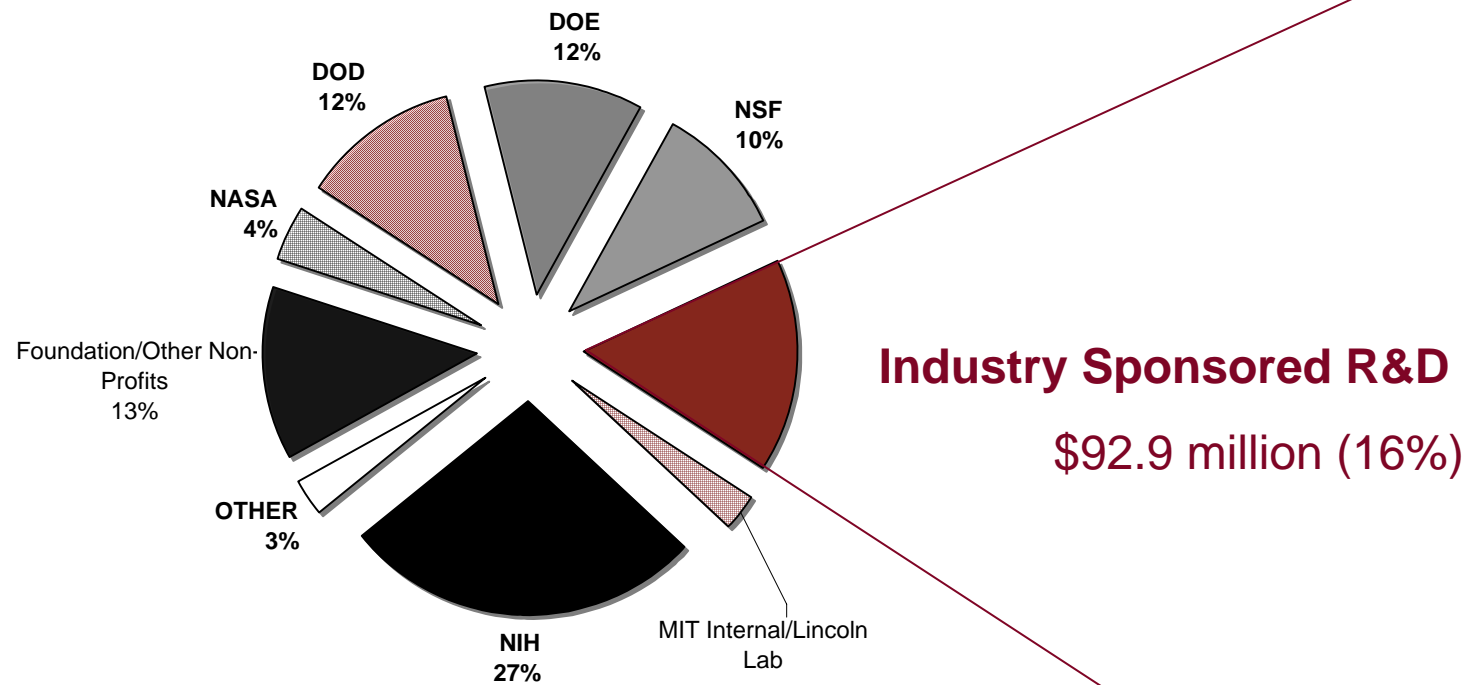


## Academia's Research Engine

- **\$40.1 billion in 2003 (doubled since 1993)**
  - *Basic (75%), Applied Research and Development (25%)*
- **Performs 55% of basic research in U.S.**
  - *Basic research drives new knowledge, innovation*
- **Average annual R&D growth rate of federal (9.9%) and academic (7.8%) sectors**
  - *led all other R&D-performing sectors from 2000 to 2003.*
- **Federal share of academic R&D funding is at highest level since FY85.**
  - *Provided 62% of R&D expenditures in academia in 2003.*
  - *Expenditures concentrated at top tier universities*
- **Industry funded R&D declined 1.1% in 2003 to \$2.2 billion.**

# MIT Research Funding -- FY 2005

- **On-Campus R&D: \$567 million**



Source: MIT Report of Sponsored Research FY05 -- Expenditures by Sponsor

# MIT Total Industry Support -- FY 2005

- **Total Industry Support -- \$179.7 million**



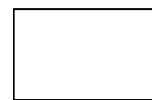
Industry Sponsored R&D -- \$92.9 million



Licensing -- \$41.4 million



Gifts -- \$35.0 million

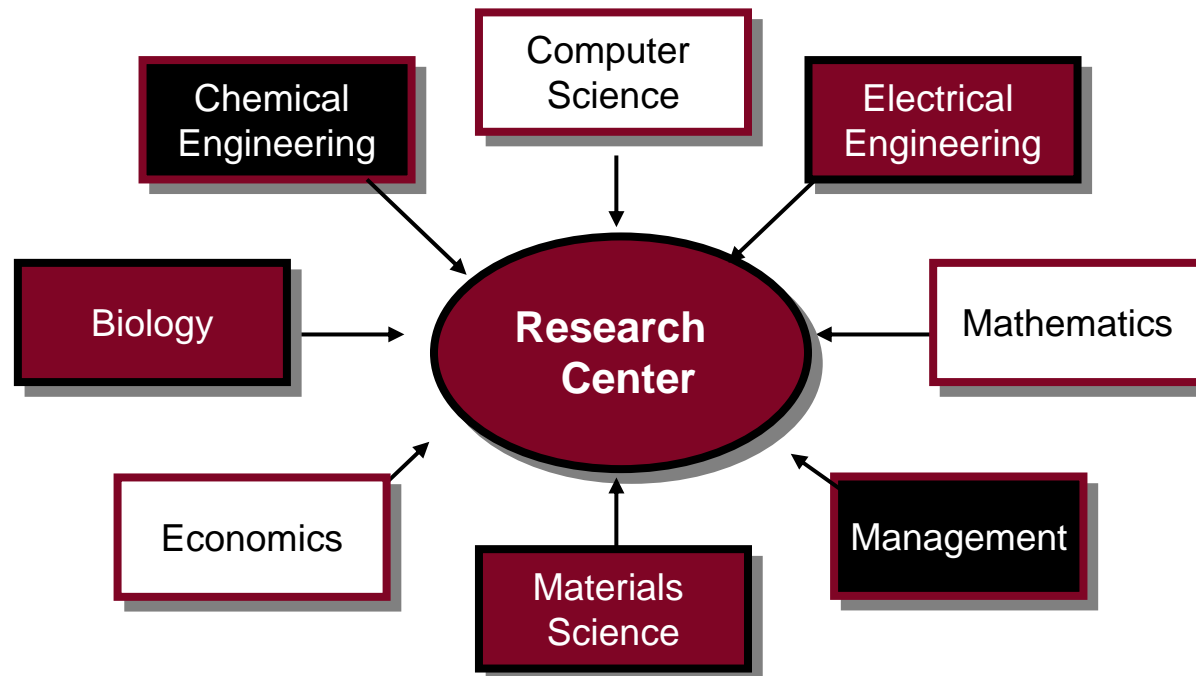


Other -- 10.4 million

Source: OCR F 05 Industry Support

# MIT - Technology Powerhouse

- **61 MIT-related Nobel Prize winners**
  - *Including 8 current faculty members*
- **5 schools, 36 departments/divisions/sections/other programs**
  - *158 interdisciplinary labs and research groups*



# Solving Real-World Problems

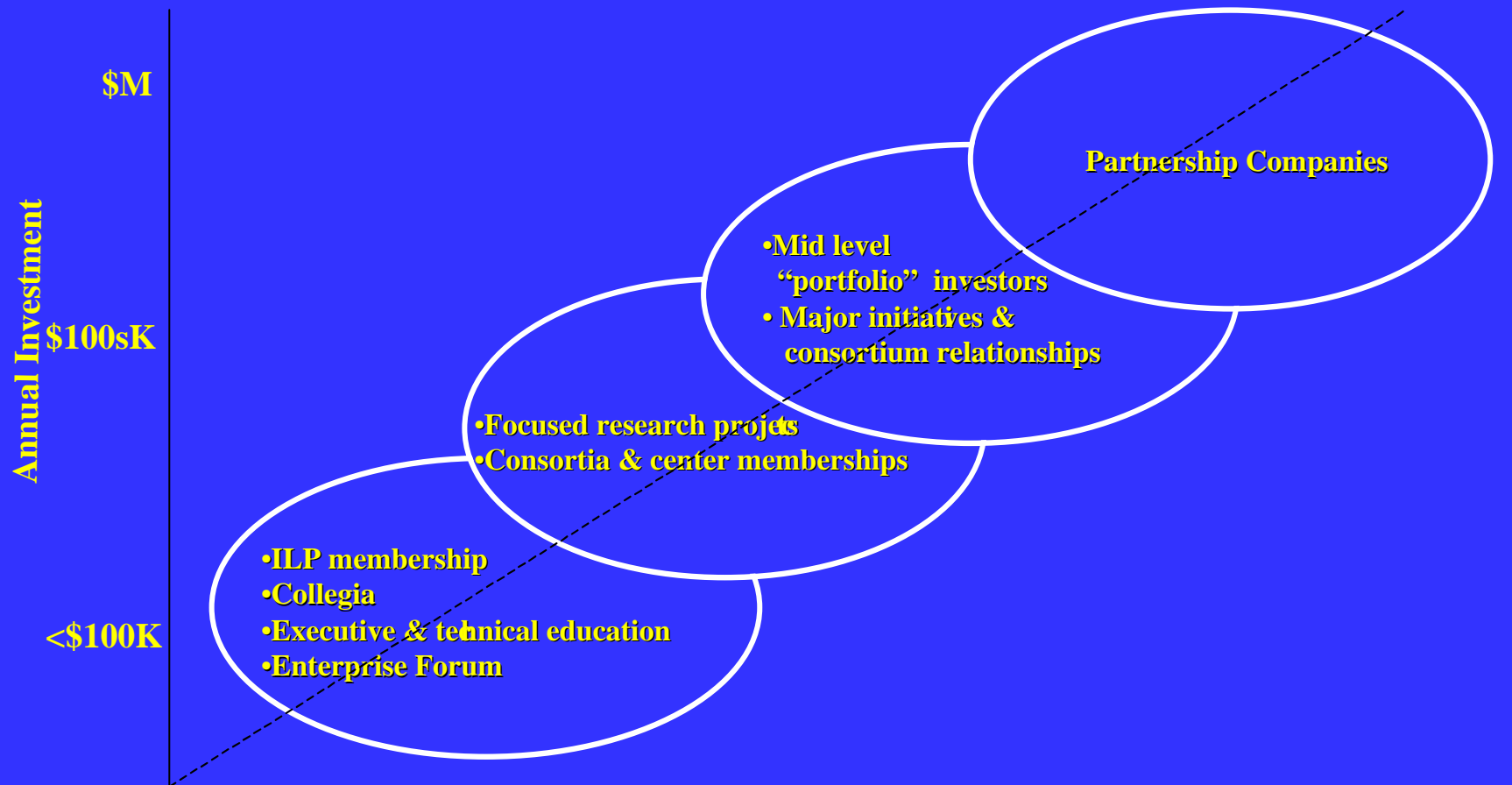
- **MIT researchers focus on discoveries of real practical impact, strong commercial value**
- **Vibrant patenting/licensing activity**
  - *512 new invention disclosures FY 2005*
  - *\$41.4 million total licensing revenue*
  - *312 patents filed, 102 licenses granted*
- **1997 Bank Boston Study**
  - *4,000+ MIT companies*
  - *1.1+ million jobs*
  - *\$232+ billion in annual world sales*



# Solving Real-World Problems

- **MIT Industry Alliances**
  - *Amgen, Merck, Ford Motor Company\*, Nippon Telephone and Telegraph, Merrill Lynch, DuPont\*, Microsoft\*, Hewlett-Packard*
- **727 companies provided R&D/gift support in FY 2005**
  - *22 companies funded \$1M+*
  - *122 companies funded \$100K - \$1M*

# MIT'S Corporate Relationships



# MIT Academic Departments

- **School of Engineering**
  - *Aeronautics and Astronautics*
  - *Chemical Engineering*
  - *Civil and Environmental Engineering*
  - *Division of Bioengineering and Environmental Health*
  - *Electrical Engineering and Computer Science*
  - *Engineering Systems Division*
  - *Materials Science and Engineering*
  - *Mechanical Engineering*
  - *Nuclear Engineering*
  - *Ocean Engineering*

# MIT Academic Departments

- **School of Science**
  - *Biology*
  - *Brain and Cognitive Science*
  - *Chemistry*
  - *Earth, Atmospheric and Planetary Sciences*
  - *Mathematics*
  - *Physics*
- **Sloan School of Management**
- **School of Architecture and Planning**
- **School of Humanities, Arts, Social Sciences**



# Advancing Your Agenda at MIT

- **MIT poses a complex challenge to industry**
  - *how to find the right experts?*
  - *how to raise faculty awareness of your research objectives?*
  - *how to identify the right programs?*
  - *how to organize the right interactions?*
  
- **MIT has several offices to help the process:**
  - *Office of Sponsored Programs (for research contracting)*
  - *Technology Licensing Office (for licensing)*

*Neither of these offices helps industry initiate collaborations*

## Corporate Access to MIT

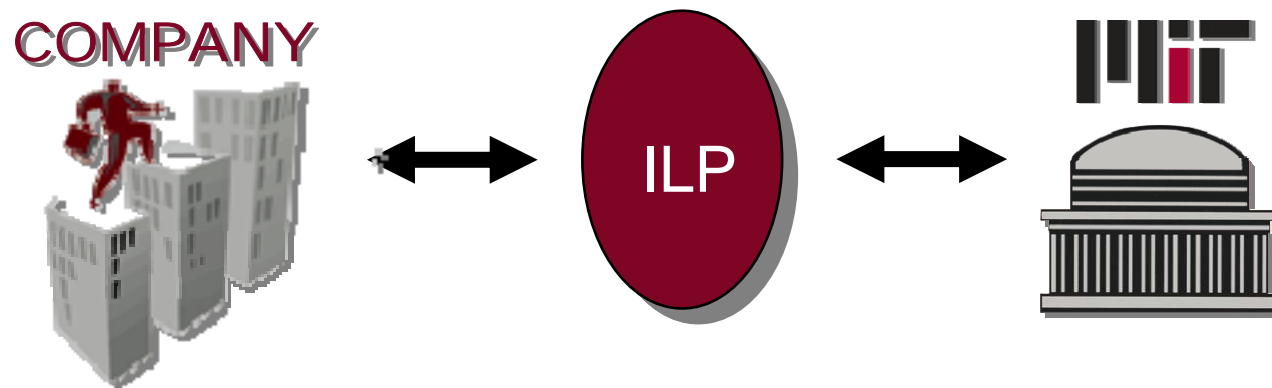
- 190 of the world's leading companies partner with the **Industrial Liaison Program** to advance research agendas at MIT (FY05).
- ILP member companies account for approximately 35% of corporate gifts and single-sponsored research expenditures at MIT.

Source: OCR FY05 Industry Support



# What is the Industrial Liaison Program?

- The ILP is industry's chief gateway and guide to MIT.



- Provides expert counsel on building productive partnerships
- Develops customized, cost effective programs
  - *assess, address strategic research needs*
  - *facilitate faculty, researcher interactions*
  - *monitor emerging technologies and innovative management practices*

## ILP Facts

- **Founded in 1948**
- **Largest program of its kind in the world**
- **Worldwide industry membership**
  - *39.4% N. America, 30.9% Asia, 27.4% Europe, 2.3% Other*
  - *broad range of industrial sectors, both traditional and high-tech*
- **18 Industrial Liaison Officers**
  - *average 15 years of industry experience*
  - *most with advanced degrees*



## Industrial Liaison Officer

- **An MIT-based professional who provides a highly-productive interface to help initiate, integrate and manage the company's MIT interactions**
  - *knows the company's people and business, and needs of stakeholders in the MIT relationship*
  - *knows MIT and its resources*
  - *helps interest MIT people in meeting with and working with the company*
  - *provides an easy-to-use central point of access to MIT information and interactions for anyone in the company*

## Typical Benefits Companies Receive

- Monitor emerging/disruptive technologies
- Discover new technologies to strengthen existing businesses
- Validate or invalidate key investment decisions/ new product development
- Solve short term technical problems
- Identify new industry partners
- Use faculty for consulting/ advice
- Participate in new industry standards setting
- Train employees
- Recruit new employees



## ILP Action Plan

- **Prioritizes interest areas**
- **Identifies ideal company participants, stakeholders**
- **Schedules specific activities**
- **Develops objectives for MIT interactions**
- **Provides ongoing assessment, advice on next steps**

- **Calendar of MIT/Corporate Events**
- **Past Events Archive**
  - *Digitized content from past ILP events*
- **ILP KnowledgeBase**
  - *Explore emerging technologies*
  - *Learn about relevant research*
  - *Identify faculty members with appropriate expertise*
- **MIT Technology Insider**
  - *Electronic publication delivered each month via e-mail*
  - *Recent developments within MIT's R&D community*
  - *Potential, competitive impact of emerging technologies*
  - *ILP insights on how best to access MIT expertise*

**[ilp-www.mit.edu](http://ilp-www.mit.edu)**



## Typical ILP Services and Deliverables

- On-campus sessions with faculty and research staff
- Faculty visits to company sites
- Executive research briefings
- Customized research reports
- Symposia and conferences
- Publications
  - *ILP edition of Technology Insider*
  - *Web reports and digital presentation archive*
  - *Technology Review*
- Facilitated access to MIT people, resources

## Best Practices for ILP Members

- **Establish clear lines of responsibility for the MIT relationship**
- **Visit MIT regularly**
- **Think broadly**
- **Engage MIT faculty at a peer level**
- **Work with MIT students**
- **Bring challenging problems**
- **Be practical when negotiating**
- **Make research truly collaborative**
- **Meet regularly with the TLO**
- **Consider larger executive briefings at MIT**

## ILP Membership for AREA

- Find and engage MIT experts
- Monitor and investigate new technology developments
- Expand knowledge and business networks
- Gain insight into a variety of issues related to your business and research priorities
- Learn about — and exploit — new opportunities



# Starting Points - Innovation

## Information Technology

- *Computer Science and Artificial Intelligence Laboratory (CSAIL) - Media Lab - AutoID Lab - Laboratory for Information and Decision Systems - The Data Center - MIT Communications Forum*
  - ❖ Sensor Networks (SMadden)
  - ❖ Scalable Location Aware Monitoring (HBalakrishnan)
  - ❖ The Grid Ad Hoc Networking Project: Scalable Wireless Mobile Networks (RTMorris)

## Supply Chain and Logistics

- *Department of Civil & Environmental Engineering and the Sloan School of Management - Operation Research Center - Center for Transportation and Logistics - Forum for Supply Chain Innovation*
  - ❖ Technology Supply Chains: Concurrent Design and Development of Product, Process, and the Supply Chain (CFine)
  - ❖ Large-Scale Optimization: Models and Algorithms for Strategic, Tactical and Real-Time Planning (CBarnhart)
  - ❖ Real-Time Routing and Scheduling (PJaillet)

## Management and Best Practices

- *Sloan School of Management (Marketing, Strategy, Organizational Development, Finance) - Leaders for Manufacturing - Systems Design and Management - Center for eBusiness - Center for Information Systems Research*
  - ❖ Managing IT Architecture for Business Value (JRoss)
  - ❖ Governing IT for Different Performance (PWeill)
  - ❖ Managing the Next Wave of Outsourcing (PWeill)
  - ❖ New Product Introduction (Eppinger, Whitney, Seering)



# MIT Industrial Liaison Program

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***Thank you! Grazie!***



Massachusetts Institute of Technology



**EXAMPLES**  
**OCR Use Only**



## ILP Conferences

- *September 29, 2006*  
**Complex Systems**
- *October 11, 2006*  
**Materials Day**
- *December 6-7, 2006*  
**Global Manufacturing Conference**
- *January 19, 2007*  
**MIT Japan Conference**
- *March 26-27*  
**MIT Innovation in Europe Conference - Brussels**

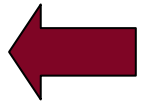
## ILP Conferences

- *April 25-26, 2007*

### **Information Technology Conference**

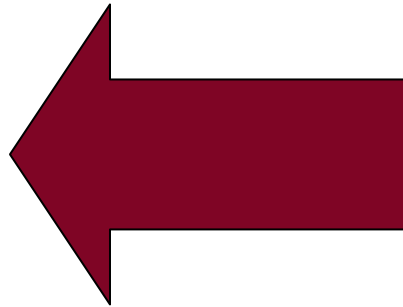
- *May 9-10, 2007*

### **Healthcare Industries Conference**





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“Typical ILP Services and Deliverables”

# ILP Members

3M	Chailease Group	FMR Corporation/Fidelity Investments
AB Volvo	Chevron Corporation	Ford Motor Company
ABB Ltd.	Ciba Specialty Chemicals Corporation	Foster-Miller, Inc.
Adrialab srl	CMI	Fubon Insurance Co., Ltd.
Agoria	Compania Vale Do Rio Doce	Fuji Electric Holdings Co., Ltd.
Air Liquide	ConocoPhillips	Fuji Heavy Industries, Ltd.
Alion Science and Technology Corporation	Continental Engineering Corporation	Fujitsu, Ltd.
Alps Electric Co., Ltd.	Cooper Tire & Rubber Company	Funai Electric Corporation, Ltd.
ALSTOM SA	Corning, Incorporated	General Dynamics-C4 Systems
Altana Pharma AG	DaimlerChrysler AG	General Electric Corporation
Amsted Industries, Inc.	Deere and Company	General Mills, Inc.
Apple Computer	Delta Electronics, Inc.	Gillette Company (The)
Arnold Worldwide LLC	Delta Faucet Company	GOJO Industries
Atlas Copco Airpower NV	Denso Corporation	Goodyear Tire & Rubber Co.
Austrian Federal Economic Chamber	DuPont (E.I.) de Nemours & Co.	GTECH Corporation
BAE Systems	EADS Company France	Helix Technology Corporation
Barco NV	Eastman Kodak Company	Highlands & Islands Enterprise
Battelle	Ebara Corporation	Hill, Holliday, Connors Advertising
Bekaert NV	Electricite de France	Hitachi Ltd.
BENQ Corporation	Eli Lilly and Company	Honda R&D Co., Ltd.
Blue Caterpillar	EMBRAER	Honeywell International, Inc.
BMW AG	EMC Corporation	Hoya Corporation
Boehringer Ingelheim Pharmaceuticals	Endicott Interconnect Technologies, Inc.	Hyundai Motor Company (HMC)
Boeing Company (The)	ENEL Produzione SpA Ricerca	IMRA America, Inc.
Booz Allen Hamilton	Energizer-Schick	Industrial Bank of Taiwan
Bosch (Robert) GmbH	EniTecnologie	Innotech
Bridgestone/Firestone, Inc.	Essilor International	Innovation Norway
BT Group	ExxonMobil Corporation	Institut Francais du Petrole
Bull Ltda.	Fairchild Semiconductor	Instrumentation Laboratory
Canon	Fiat SpA	Ishikawajima-Harima Heavy Industries
Cathay Life Insurance Co., Ltd.	Finmeccanica SpA	JG Summit Holdings, Inc.

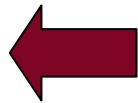


# ILP Members

Jupiter Bioscience Inc.  
KLA-Tencor Corporation  
Komatsu Ltd.  
Kraft Foods, Inc.  
Kyotsu Jigyo K.K.  
L-3 Communications Corporation  
LG Chem, Ltd.  
Lien Ho Institute  
Lord Corporation  
Markem Corporation  
Mars Incorporated  
MasterCard International  
Matsushita Electric Ind. Co., Ltd.  
Matsushita Electric Works  
McDonald's Corporation  
Merck KGaA  
Michelin SA  
Microsoft, Inc.  
Minerals Technologies Inc.  
MITRE Corporation  
Mitsubishi Electric Corporation  
Mitsubishi Heavy Industries, Ltd.  
Mitsui Interbusiness Research Institute  
Naval Undersea Warfare Center  
NEC Corporation  
New Industry Research Organization (The)  
New York Metropolitan Transportation  
Nippon Telegraph & Telephone Corp.  
Nissan Motor Co., Ltd.  
Nitto Denko Corporation  
Northrop Grumman Corporation  
Novartis  
Olympus Corporation

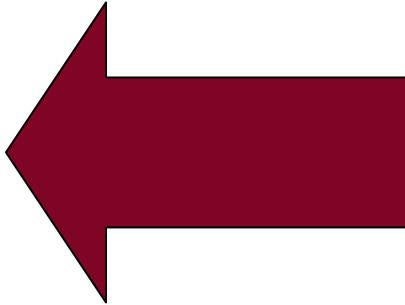
Ordnance Survey  
Pall Corporation  
Pentax Corporation  
PerkinElmer, Inc.  
Pfizer Consumer Group  
Pfizer, Inc.  
Philippines Consortium  
Philips Electronics N. V.  
Picanol NV  
Pirelli Cavi e Sistemi SpA  
Pitney Bowes, Inc.  
Pixar Animation Studios  
PTT Public Company Limited  
Quanta Computer Inc.  
Quest Diagnostics Incorporated  
Raytheon Company  
Ricoh Company Ltd.  
Rolls-Royce plc  
Saab AB  
Saint-Gobain  
Samsung Electronics Co., Ltd.  
Sanofi Aventis  
Sanyo Electric Company, Ltd.  
SAP AG  
SAPPI Limited  
Sharp Corporation  
SHELL  
Shin Kong Insurance Co., Ltd.  
Siam Cement Public Company Limited  
Siemens AG  
SKF  
State Farm Mutual Automobile Insurance  
Statoil ASA

Sumifru Corporation  
Sun Microsystems, Inc.  
Taishin Financial Holding Co., Ltd.  
Taiwan Semiconductor Mfg  
TASC  
Tata Iron and Steel Co.(TISCO)  
Teijin Limited  
TEKES  
Telecom Italia S.p.A.  
Tenneco Automotive Inc.  
Texaco Inc.  
Textron, Inc.  
Thales Group  
Time Warner Cable  
Timken Co. (The)  
Tokyo Electron, Ltd.  
TOT Corporation Public Company Limited  
Toyota Motor Corporation  
Tung Ho Steel Enterprise Corporation  
Tyco Electronics Corporation  
Umicore NV  
United Labs  
Victoria's Secret, LLC  
Volkswagen AutoUni - Volkswagen AG  
Wellington Management Company, LLP  
World Federation of Exchanges  
WTCM  
Xerox Corporation  
YAGEO Corporation  
Yaskawa Electric Corporation  
Yuen Foong Yu Paper Mfg. Co., Ltd.





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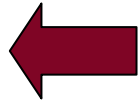


“Corporate Access to MIT”



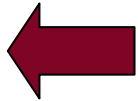
## Monitor Emerging/Disruptive Technologies

- **Conglomerate held 2 day Executive Briefing to evaluate MIT technologies involving materials design, energy harvesting, tribology, wireless technologies, etc.**
- **Company used ILP introductions to join a “technology road-mapping” exercise at a major MIT research center. Such exercises allow extended networks of companies in particular industry sectors to participate in mapping expected technology emergence versus complex market dynamics.**
- **Electronics company wanted to learn more about MEMs. ILP organized 2 days of meetings with range of faculty that generated new ideas how to use MEMs in their products**
- **Electronics company used ILP to meet all MIT faculty in area of batteries and fuel cells to monitor emerging technologies for use in own battery and fuel cell business**



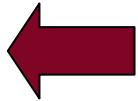
## New Technologies for Existing Businesses

- **Consumer products manufacturer used ILP to identify new metal finishing technology that allowed cost-effective market differentiation for a major product line.**
- **ILP member company identified sub-optimal internal technical competencies that could be critical to existing businesses future success. ILP helped facilitate workshops with MIT faculty to identify areas for peer to peer introductions, targeted research collaborations, and recruiting.**
- **Auto company sponsored multi-year materials R&D lab after ILP introduction. Using results to introduce new materials technologies and materials trade off analysis**
- **Electronics company wanted to change material to biodegradable polymer. ILP introduced faculty in area of drug delivery and company worked with faculty to use new material**



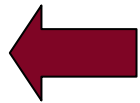
## Validate Decisions/New Product Development

- **Chemical company sponsored MIT research which led to decision not to fund new polymer fiber composite and saved millions of \$**
- **Electronics company met various faculty through ILP who informally evaluated their new medical device technologies**



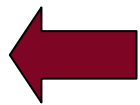
## Solve Short-Term Technical Problems

- Member was having a problem coating a part. ILP introduced faculty with right technology and a start-up company. Member worked with start-up company and solved problem.
- During an ILP-sponsored visit to a company, the MIT faculty was given a tour of a polymer production line. He suggested a change in the process which allowed the company to double capacity from the same machine.
- Plant maker got contract for new type of plant they had limited experience with. Used ILP to meet MIT experts in corrosion and modeling software and set up short training course for employees



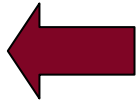
## Identify New Industry Partners

- Optics company used ILP to meet faculty who helped them identify pharmaceutical and medical device company partners
- A large equipment manufacturer was made aware of an MIT start-up company by reading the ILP Tech Insider Report. When a company director visited campus the ILP hosted a visit with one of the founders and a venture capital group that was supporting the start-up. As a result of the successful introduction the ILP member company is investing in this opportunity.
- Auto company used ILP conference to identify nontraditional industry partners for new R&D work



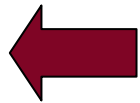
## Use Faculty for Consulting/Advice

- **Manufacturer of paper products was introduced by ILP to a faculty expert in surveillance technology for imaging oceans from space. New ideas for remote sensing of critical in-plant manufacturing parameters from 100 yards away were a result.**
- **An aerospace/defense company attended an ILP conference, and heard a presentation by a faculty member on autonomous processes. With follow-on discussions facilitated by ILP, the company funded the professor to adapt the processes for the company's benefit.**
- **Healthcare company hired a faculty consultant who quickly solved a manufacturing polymer performance issue holding up a new product introduction.**
- **Auto company used ILP to identify candidates for advisory board position**



## Participate in Industry Standards Setting

- **Electronics company joined Microphotonics Center after ILP introduction. Used membership to influence evolving technical standards for microphotonics industry**
- **Electronics company joined Auto ID Center to participate in standards setting of RF ID chips and readers**
- **Auto company joined Automotive Electronics Consortium to influence new standards for use of 42 volt system on cars**
- **ILP member healthcare company is participating in a dialog with the Auto ID Center at MIT looking at RFID technology in healthcare and pharmaceuticals.**



## Train Employees

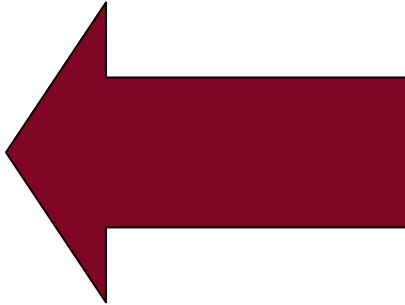
- Chemicals and materials company used ILP membership to help customize a week-long course of study at MIT for their top technical staff. Working with the Sloan Executive Education office, ILP helped create a program at MIT that centered on “value creation through technology” that included laboratory tours and faculty presentations on technology topics of strategic interest.
- ← • A major Asian corporation sponsors two of its mid-career managers annually at MIT's Sloan School of Management MBA program. ILP has a role in helping these managers keep in contact with technical activities at MIT during their residence.
- Auto company used ILP to identify faculty candidates for company visiting researcher to do work with at MIT on nanoenergy. Decided to send researcher for 2 years to MIT

## Recruit New Employees

- A major aerospace company takes advantage of ILP's connections and resources to pinpoint graduate-level students that are candidates for employment through student activity groups and faculty connections. ILP's personalized service is over and above that is generally available through MIT's Career Services Office.
- ← • Large consumer and industrial products company hosts yearly recruiting and faculty visits, coordinated through their ILO. The company currently has 45 MIT alums in the workforce and makes a number of new MIT hires each year as a result.
- Financial services firm's large support of research at three MIT schools, allowed them to target potential employees through research activities, joint projects, data exchanges, and summer internships; all resulting in the firm being one of the top recruiters on campus for four years.



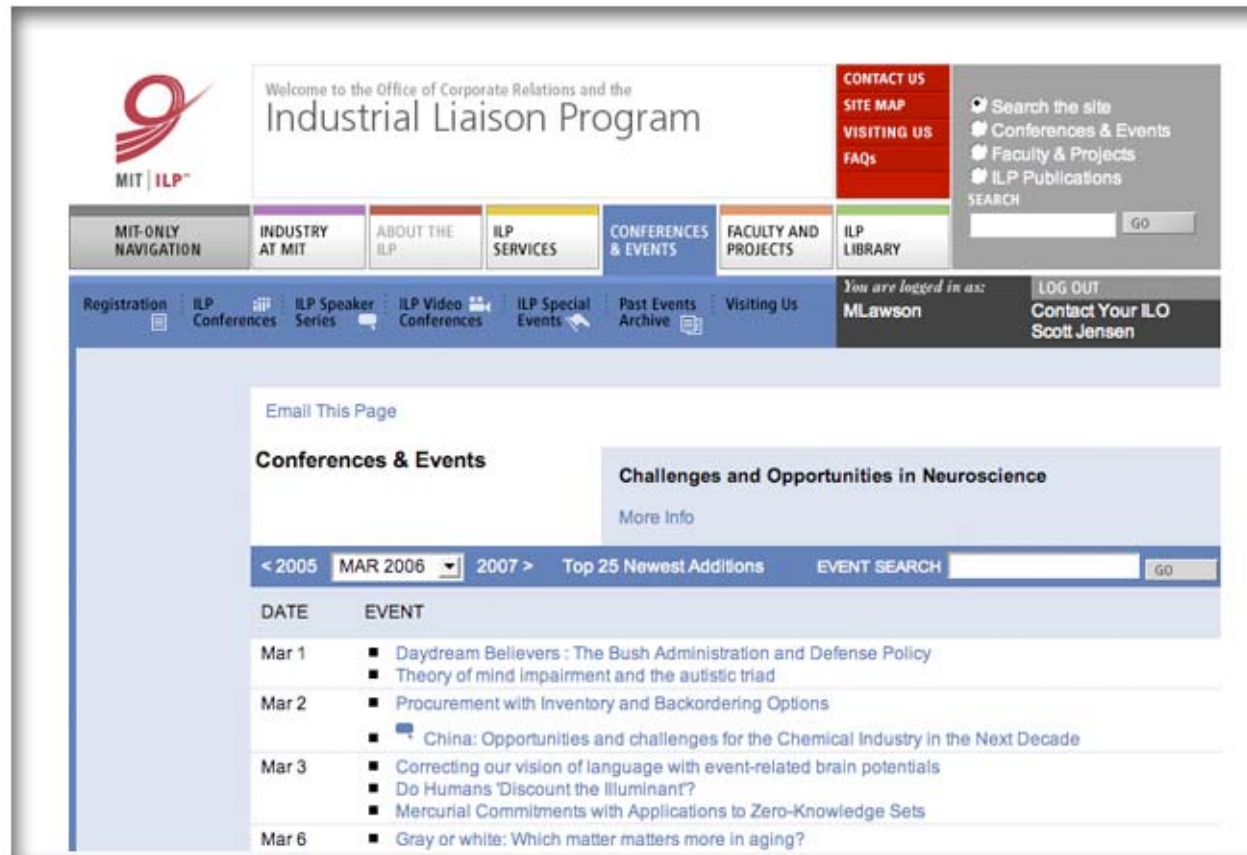
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“Typical Benefits Companies Receive”



# Calendar of MIT/Corporate Events



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**Conferences & Events**

**Challenges and Opportunities in Neuroscience**  
More Info

< 2005 MAR 2006 2007 > Top 25 Newest Additions EVENT SEARCH  GO

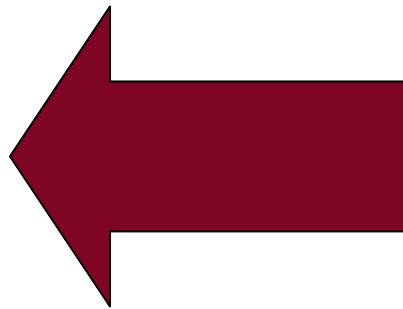
DATE	EVENT
Mar 1	<ul style="list-style-type: none"><li>Daydream Believers : The Bush Administration and Defense Policy</li><li>Theory of mind impairment and the autistic triad</li></ul>
Mar 2	<ul style="list-style-type: none"><li>Procurement with Inventory and Backordering Options</li><li>China: Opportunities and challenges for the Chemical Industry in the Next Decade</li></ul>
Mar 3	<ul style="list-style-type: none"><li>Correcting our vision of language with event-related brain potentials</li><li>Do Humans "Discount the Illuminant"?</li><li>Mercurial Commitments with Applications to Zero-Knowledge Sets</li></ul>
Mar 6	<ul style="list-style-type: none"><li>Gray or white: Which matter matters more in aging?</li></ul>

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“ILP Web Site”



# Past Events Archive

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## Past Events Archive

Here we have stored all the information and materials from our past ILP events.

If you missed a conference, speaker or want to see if someone covered your topic at a previous conference, here is the place to find out. In addition, here you will find links from past conference agendas to the digital on-line presentation of conferences and other speakers along with abstracts, biographical material and more.

Use the search boxes below to search the past event archives. Or, if you need more information, contact your Industrial Liaison officer.

Presenter Name  Event Keyword

March 5, 2006

### 2005 Aerospace and Defense Conference (recorded October 18-19, 2005)

Archived presentations highlight the latest research in areas such as: mobile robots, ultra wideband digital receivers, network centric automation and control, multi-spectral

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Massachusetts Institute of Technology



# Past Events Archive

Welcome to the Office of Corporate Relations and the Industrial Liaison Program

MIT | ILP™

CONTACT US  
SITE MAP  
VISITING US  
FAQs

Search the site  
Conferences & Events  
Faculty & Projects  
ILP Publications

SEARCH  GO

MIT-ONLY NAVIGATION | INDUSTRY AT MIT | ABOUT THE ILP | ILP SERVICES | **CONFERENCES & EVENTS** | FACULTY AND PROJECTS | ILP LIBRARY

Registration | ILP Conferences | ILP Speaker Series | ILP Video Conferences | ILP Special Events | **Past Events Archive** | Visiting Us

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Past Conferences

Past Speaker Series

Past Video Conferences

Past Special Events

Request an Event Proceeding

### Past Conferences

ILP CONFERENCE NAME	LOCATION	DATES	OVERVIEW	AGENDA	VIDEO ARCHIVE
MIT 2005 Research and Development Conference	Kresge Auditorium	11/02/05 - 11/03/05			
2005 MIT Aerospace and Defense Industry Conference	Wong Auditorium, Tang Center	10/18/05 - 10/19/05			
2005 MIT Energy Challenges Workshop	Wong Auditorium	12/06/05 - 12/07/05			

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The main content area features a sidebar on the left with links for "Past Conferences", "Past Speaker Series", "Past Video Conferences", "Past Special Events", and "Request an Event Proceeding". The central content displays details for the "MIT 2005 Research and Development Conference *Innovation for Industry*", held from November 2, 2005 to November 3, 2005, at the Kresge Auditorium. The "Opening Session" on November 2, 2005, includes a 3:20p.m. break and a 3:40p.m. session titled "Determining Product Platform Extent" by Olivier L. de Weck, Assistant Professor at MIT. Below this, there are links to "View Digital Archive of this session" in Quicktime or Real Video.

On the right, an "Additional Information" section provides links to "Register Now", "Conference Overview", "Download Conference brochure PDF", "Download Conference agenda PDF", and "Back to Conference list".

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# Past Events Archive



The screenshot shows a presentation slide with a sidebar on the left and a main content area on the right. The sidebar contains the title 'Determining Product Platform Extent', the event details 'Presented at the 2005 MIT Research & Development Conference, 2-3 November 2005', a portrait of Olivier de Weck, and his name and title: 'Olivier de Weck, Assistant Professor, MIT Department of Aeronautics & Astronautics'. The main content area has the title 'Determining Product Platform Extent', subtitle 'Highlights from a Joint MIT-GM Research Project', event details 'MIT R&D Conference, November 2, 2005, Technology Track 4: Manufacturing/Productivity', and speaker information 'Prof. Olivier L. de Weck, deweck@mit.edu, Engineering Systems Division, Dept. of Aeronautics & Astronautics, Massachusetts Institute of Technology'. Logos for MIT and MIT ILP are visible at the bottom right of the slide. A 'Get QuickTime' logo is at the bottom left. A copyright notice at the bottom reads 'Copyright © 2005 MIT, Olivier de Weck - May not be copied or reproduced without written permission.' A red arrow points to the left from the sidebar area.

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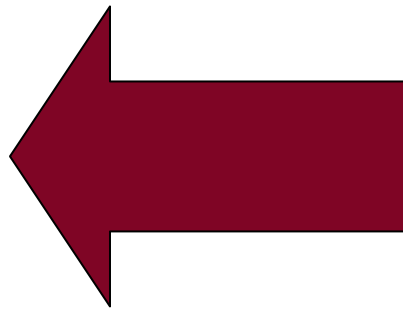


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# ILP KnowledgeBase

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# ILP KnowledgeBase

## Faculty search results

Displaying 1 to 20 of 84

[Next 20 results >>](#)

NAME	PRIMARY TITLE	HOME DEPT/LAB/CTR
<a href="#">Suh, Nam</a>	Ralph E and Eloise F Cross Professor of Mechanical Engineering	Department of Mechanical Engineering
<a href="#">McGarry, Frederick</a>	Professor of Civil Engineering and Polymer Engineering, Emeritus	Department of Materials Science and Engineering
<a href="#">Argon, Ali</a>	Quentin Berg Professor of Mechanical Engineering, Emeritus	Department of Mechanical Engineering
<a href="#">Armstrong, Robert</a>	Chevron Professor of Chemical Engineering	Department of Chemical Engineering
<a href="#">Asada, Haruhiko</a>	Ford Professor of Mechanical Engineering	Department of Mechanical Engineering
<a href="#">Bawendi, Moungi</a>	Professor of Chemistry	Department of Chemistry
<a href="#">Blankschtein, Daniel</a>	Professor of Chemical Engineering	Department of Chemical Engineering
<a href="#">Boyce, Mary</a>	Distinguished Alumnae Professor of Mechanical Engineering	Department of Mechanical Engineering
<a href="#">Brenner, Howard</a>	Willard Henry Dow Professor of Chemical Engineering	Department of Chemical Engineering
<a href="#">Griffith, Linda</a>	Professor of Mechanical and Biological Engineering	Biotechnology Process Engineering Center
<a href="#">Cohen, Robert</a>	Raymond A and Helen E St Laurent Professor of Chemical Engineering	Department of Chemical Engineering
<a href="#">Colton, Clark</a>	Professor of Chemical Engineering	Department of Chemical Engineering
<a href="#">Deutch, John</a>	Institute Professor	Department of Chemistry
<a href="#">Edelman, Elazer</a>	Thomas D and Virginia W Cabot Professor of Health Science and Technology	Harvard-MIT Division of Health Sciences and Technology
<a href="#">Gleason, Karen</a>	Professor of Chemical Engineering	Department of Chemical Engineering
<a href="#">Haton, T</a>	Ralph Landau Professor of Chemical Engineering Practice	Department of Chemical Engineering
<a href="#">Horvitz, H</a>	Whitehead Professor of Biology	Department of Biology
<a href="#">Jensen, Klavs</a>	Lamont du Pont Professor of Chemical Engineering	Department of Chemical Engineering
<a href="#">Kardar, Mehran</a>	Professor of Physics	Department of Physics
<a href="#">Kemp, Daniel</a>	Professor of Chemistry	Department of Chemistry

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**Home DLC:**

- [Department of Chemical Engineering](#)

**Affiliated DLCs:**

- [Materials Processing Center](#)
- [Institute for Soldier Nanotechnologies \(ISN\)](#)
- [Program in Polymer Science and Technology](#)
- [Microphotonics Center](#)

**This Faculty Member has the following urls:**

- <http://web.mit.edu/cheme/people/faculty/gleason.html>
- <http://web.mit.edu/gleasongroup/>

**Educational Background, Awards, & Honors:**

- Ph.D., 1987, University of California
- S.B., 1982, MIT
- S.M., 1982, MIT

**Areas of Interest and Expertise:**

- Electronic Materials
- Solid-State Surface Science
- Chemical Engineering Thermodynamics
- Microelectronics Processing
- Catalysis and Chemical Kinetics
- Thin Film Deposition for Application as Low Dielectric Constant Material
- Biopassivation Coatings and Photosensitive Polymers
- Precursor Gas Chemistry for Chemical Vapor Deposition (CVD)
- Nuclear Magnetic Resonance (NMR)
- Thin Film Characterization Including Advanced Solid-State Nuclear Magnetic Resonance (SMR) Methodologies
- Fluorocarbon Films
- Surfaces and Structures

**Biographical Sketch:**  
Dr. Gleason received the SB and SM in chemical engineering from MIT in 1982, and the Ph.D. in chemical engineering in 1987 from the University of California at Berkeley. She was appointed assistant professor at MIT in 1987, promoted to

**Available Reports**

**Report Type:**

- Curriculum Vitae Report - Printable Format
- CV Report with Unwrapped Long Lines
- CV Report Formatted for Copying into Word

Contact Info

Affiliated DLCs

URLs

Education

Interest/Expertise

Research Summary

BioSketch

Related Articles

Projects

w/ Abstracts?  w/ Details?

w/ Inactive Projects?

Publications

w/ Details?

**Saved Sets:**

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# ILP KnowledgeBase

**Available Articles, Published Works, and Other Related Information:**

- Professor's Swim Record Broken After 20 Years (05/09/01)
- Team Creates New Process for Waterproofing (02/05/03)

**This Faculty Member is an Investigator for the Following Projects:**

Check off projects to have them appear in your CV Reports:  Check All  Uncheck All

- Novel Functionalization by Hot Filament Chemical Vapor Deposition for Synthesis of Ultrahydrophobic and Multifunctional Surfaces
- Mechanism of Deformation and Toughening in Amorphous and Semicrystalline Thermoplastics Modified with Micro and Nano-scale Fillers
- Dynamic FTIR
- Solventless Lithography
- In Situ Spectroscopy of Actively Deforming Polymers
- Chemical Vapor Deposition Polymers
- Novel Conductors for Flexible, Robust Electronic Devices

Check All  Uncheck All

**This Faculty Member is an Author of the Following Publications:**

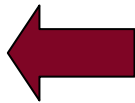
- Particle Surface Design by an All-Dry Encapsulation Method L0306-013, S
- A Mechanistic Study of Initiated Chemical Vapor Deposition of Polymers: Analyses of Deposition Rate and Molecular Weight L0306-012, S
- Chemical Vapor Deposited Nanocomposites Fabricated Via Ultrasonic Atomization L0306-011, S

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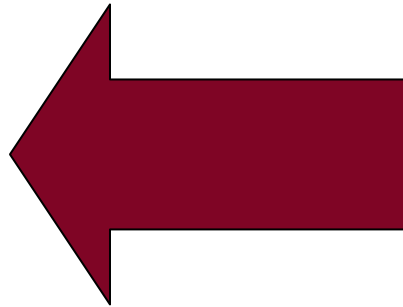


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# MIT Technology Insider

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DESCRIPTION	# PAGES	DOC TYPE
2/06 <ul style="list-style-type: none"><li>Parallel Lines: Interactive Supercomputing</li><li>Thin is In: The Rubner Research Group designs thin-film coatings</li><li>A Few Bright IDEAS</li><li>Lab News, and Tech Transfer Report</li><li>Not Your Father's IT: 2006 MIT Information Technology Conference</li><li>It's All in the Coding: Network Coding</li></ul>	11	PDF <a href="#">Download (476K)</a>

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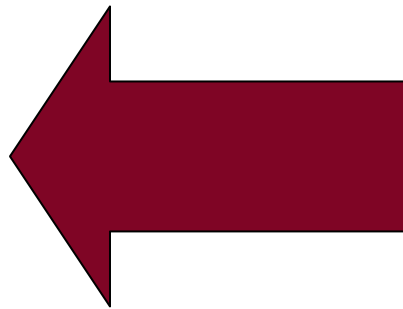


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