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STANFORD UNIVERSITY SCHOOL OF ENGINEERING



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MS&E Celebrates its 5th Anniversary

Stanford Engineering established the Department of Management Science and Engineering five years ago with a logic and a purpose: engineers know how to analyze and solve problems and they thoroughly understand technology. With this quantitative background and additional training, for example in social sciences or finance, engineers should therefore be leaders in management and public policy.

Now, as the department celebrates its fifth anniversary, this vital vision and a lot of hard work has produced leadership in this new discipline at the interface of engineering, business, and public policy. From three small, independent departments (Engineering Economic Systems, Operations Research, and Industrial Engineering and Engineering Management), MS&E has become a thriving intellectual community of more than thirty faculty, eight areas of research, climbing enrollment, and strong links to industry and government.

“Five years later, I would say that I am very proud of the department,” says Chair M. Elisabeth Paté-Cornell,

the Burt and Deedee McMurtry Professor of Engineering. “Merging academic departments is not a trivial task. It has taken the hard work and good will of the whole faculty to make it a success.”

Alumni have also helped by providing guidance, advice, and the financial support that is crucial to the health of such a diverse department.

Relevant Research Strengths

Through the merger, the department has gained both a critical mass and the ability to explore and exploit intellectual synergies among the members of the heritage departments. An example of the department’s newfound breadth and relevance is a five-year contract with General Motors Corp. that it received in its first year of existence to address the management of the automaker’s work systems. “Over the years, the project has drawn on the talents of the whole department,” Paté-Cornell says.

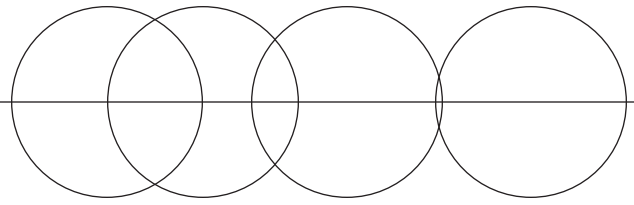
Those talents are manifest in the department’s eight research areas:



organizations, technology management and entrepreneurship; production and operations management; decision analysis and risk analysis; economics and finance; optimization and the analytical tools of systems analysis; probability and stochastic systems; information

science and technology; and strategy and policy. MS&E also includes several centers and programs such as the Energy Modeling Forum and the Center for Work, Technology and Organization. In addition, it hosts the Stanford Technology Ventures Program.

The department’s strengths are also manifest in the talents of students and alums who work in investment banking, management consulting, and other fields that have not been closely associated with engineering in the past. These fields will be in the future because a deep understanding of technology has become critical to their



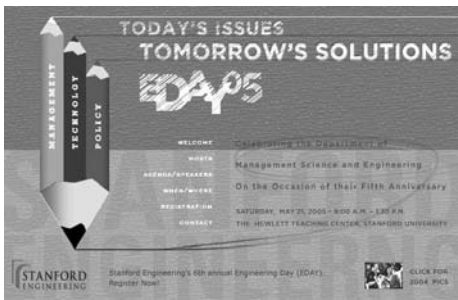
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operations. “For example, a growing number of people address finance problems using methods that have been traditionally associated with engineering systems analysis,” says Paté-Cornell, referring to the fast-growing specialty of

financial engineering.

The department has been able to forge many beneficial relationships with the business world through its affiliates program. These relationships bring resources to MS&E faculty and students. They also

strengthen the connection between the academic curriculum and real-world case studies and problems presented by the affiliates. Paté-Cornell’s hope is that more engineers will also join the ranks of government and use their skills to shape and implement policies.



**Stanford Engineering’s
Engineering Day
Saturday, May 21, 2005
9 a.m. – 1:30 p.m.
Hewlett Teaching Center
at Stanford**

Engineering means business – but in a festive sort of way – when alumni are invited to come to Stanford Engineering’s Engineering Day (EDAY '05) to mark the fifth anniversary of the Department of Management Science and Engineering.

“It is going to be a great celebration of our fifth birthday,” says department chair M. Elisabeth Paté-Cornell.

The keynote speaker is Jeff Raikes, group vice president of Microsoft’s Information Worker business. Raikes holds a bachelor’s degree in engineering and economic systems from Stanford.

The heart of the day is dedicated to faculty breakout sessions on topics that blend engineering, business, and technology. After hearing short presentations about each, guests will have the chance to choose a session to explore a topic in depth. Here are the expected topics and presenters:

- **The Changing Nature of Technical Employment**
Professor Stephen Barley
- **The Hidden Costs of Offshoring: Adapting Supply Chains**
Professor Feryal Erhun
- **Strategy at the Edge of Chaos**
Professor Kathy Eisenhardt
- **Managing the Newest Technologies**
Professor Nick Bambos
- **Are Entrepreneurs Born or Made? Hi Tech Entrepreneurship Education at Stanford**
Professor Tom Byers.

Guests will enjoy plenty of time for networking, both in the breakout sessions and at the lunch hosted on the SEQ.

Please join us for this special day. Watch your E-News for registration information.

Curriculum and Faculty

MS&E students gain the training that they need to be leaders in finance, industry, policy, or other specialties by completing a core engineering curriculum, followed by a concentration in an area such as finance, operations research, production, or public policy. Enrollment has climbed strongly during the department’s past five years to about six hundred students. One of Paté-Cornell’s goals for the department is to increase the number of graduate student fellowships since graduate students are essential to its intellectual strength.

Meanwhile the faculty has grown, too. Since the department’s birth, eight faculty have been hired and two more positions are about to be filled, Paté-Cornell says.

Two faculty members hold joint appointments with the Department of Electrical Engineering and Paté-Cornell hopes to continue building links to other departments in the school, making MS&E a central part of Stanford Engineering. In its first five years, the department has unquestionably become a thriving part of the school.