This year, as the College of Engineering celebrates its 150th Anniversary, the Department of Industrial and Operations Engineering remembers one of its early distinguished faculty with the inauguration of the Wilbert Steffy Lectureship.

“Bert was an outstanding teacher and his mentoring of students and his publications helped to build the national reputation of the IOE department,” according to Professor Emeritus and former IOE chair Walt Hancock. 

Wilbert Steffy retired in 1976 after 29 years of service on the faculty of the College of Engineering.

Wilbert Steffy died in 1994 at the age of 86. He was survived by his loving wife Doris who passed away in 2001. The Wilbert Steffy Lectureship was established by a gift from the estate of Doris Steffy.

Wilbert Steffy obtained a B.S. in Mechanical and Industrial Engineering in 1937 from the University of Michigan after a number of years of employment in industry. During the period from 1945 through 1949, he served as a consulting industrial engineer while teaching courses on a part-time basis for the University of Michigan Department of Mechanical Engineering.

In 1949, Steffy was appointed full-time assistant professor of Mechanical Engineering. He was promoted to associate professor in the newly established Department of Industrial Engineering in 1955. In 1968, in recognition of his long service to the department, excellent teaching, and the use of his talents to aid the hospitals and machine tool industry of the state, he was promoted to professor.

The first Wilbert Steffy Lecture will be delivered on March 25, 2004, as part of the College of Engineering’s Sesquicentennial Lecture Series. The Lecture will be delivered by Seth Bonder, former CEO of Vector Research. An expert in the field of Operations Research, Seth Bonder is also a former faculty member of the IOE department and knew Wilbert Steffy personally.

The endowed Wilbert Steffy Lectureship will accomplish Mrs. Steffy’s intention to benefit the University and honor her husband, Wilbert Steffy, in perpetuity.
The United States Navy has sought technical expertise from the University of Michigan Industrial and Operations Engineering Department in its effort to transform its industrial infrastructure using the principles of Lean Manufacturing. IOE Professor Jeffrey Liker and IOE PhD student Robert Kucner are collaborating with Naval Shipyards in an investigation of “Lean Production Methodologies in a Ship Overhaul and Repair Environment.”

The four Naval Shipyards (Norfolk, Pearl Harbor, Portsmouth, and Puget Sound) form the industrial backbone of the U.S. Navy. These facilities do not manufacture navy ships; rather, they serve as repair depots to maintain top condition of existing ships, many of which will be in service for well over thirty years.

In an effort to modernize repair processes, cut costs to tax payers, and minimize downtime to the fleet, the Navy has turned to Lean Manufacturing, also known as the Toyota Production System (TPS), for its strategy of process improvement. Lean Manufacturing is a production strategy built upon the simple premise of continuously and systematically removing wasted time, effort, inventory, and other resources from production processes. The Navy is projecting that a full implementation of Lean Manufacturing will save as much as $600 million in repair costs within ten years.

In search of an expert to guide the Lean Transformation, the Navy first contacted Liker in the summer of 2001. Liker has spent nearly twenty years studying Toyota and the various applications of their production systems. He collaborated with Professor Thomas Lamb of the University of Michigan Naval Architecture department to conduct an initial study of potential Lean applications in the shipbuilding industry; this culminated in the publication of a “Guide to Lean Shipbuilding.”

Robert Kucner, currently a third year PhD student working for Dr. Liker, became involved with the Navy when he spent the summer of 2002 working at Portsmouth Naval Shipyard in Kittery, Maine. Kucner was involved in the initial efforts to introduce Lean Production at the Portsmouth Shipyard, a facility of over 4,000 employees that specializes in the overhaul and repair of nuclear submarines.

As a result of his early efforts, Kucner recognized the tremendous technical and sociological challenges of implementing Lean Production within a government-owned overhaul and repair facility, particularly one where production cycle-times are measured in months, a far cry from traditional manufacturing. The Navy was interested in expanding this effort and, along with the University of Michigan, has taken on a co-sponsorship role of Kucner’s PhD research. In the past year and a half he has spent significant time at each of the four naval shipyards, immersing himself in the industry, culture, and production systems of each yard.

At the center of Kucner’s efforts thus far has been his role in the creation of a Lean Repair model line in the production area of ball valve repair at Portsmouth. According to Kucner, “Ball valves are significant components on submarines. There are over 100 valves that need to be repaired from each ship. Some are small, close to twenty pounds, while some are extremely large, around four-hundred pounds. Corrosion and other damage occur. Therefore, these components must be removed from the ship, disassembled, inspected, repaired,
and reassembled."

The results of this model line have been significant. Thus far, production lead-time has been reduced from an average of 160 days per component to an average of less than 40 days; the goal is to achieve a 15 day average. Work-in-process has been reduced by 60 percent and worker morale in the area has dramatically improved.

“It has been very exciting. These techniques had never been tried before, not in this environment. It’s as if this small work area has been an ongoing laboratory experiment. The social and technical observations we’ve made have been fascinating,” says Kucner.

In August, he presented his work at an Institute of Industrial Engineers (IIE) National Conference. He also presented the work at a conference of the National Shipbuilding Research Program (NSRP) in April, and has presented to numerous VIPs visiting Portsmouth. According to Kucner, “It has been fun. This work has received some very high level visibility.”

Kucner continues to collect data and record his findings. He is hopeful of completing his dissertation in 2005. In addition to his research, he is the Graduate Student Instructor for IOE 421-Work Organizations and IOE 522-Organization Theory. Last year he received the “GSI of the Year” award from Alpha Pi Mu for his work as an instructor.

Kucner came to IOE after completing his undergraduate work in Mechanical Engineering at the University of Maryland. His career plans are to teach Lean Production in academia or to implement Lean in the private sector.

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Chair’s Message

This year the College of Engineering is celebrating its 150th anniversary. I hope that many of you will be able to participate in some of the numerous activities planned throughout the year to celebrate our distinguished history of accomplishments. Much of this history and the events are captured on a website at http://www.engin.umich.edu/150th/index.html.

The alumni of Industrial and Operations Engineering (IOE) continue to play a major role in the College’s success. It gives me great pleasure to announce that the recipient of the 2003 Alumni Society Merit Award for IOE is Dr. W. Peter Cherry (MS ’70, PhD ’72). (Peter will be featured in the next edition of the newsletter.) I am also pleased to note that, this spring, the inaugural lecture for the recently endowed Wilbert Steffy Lectureship will be delivered by Seth Bonder. As many of you may know, Steffy was professor emeritus (and an alum) of IOE, and Bonder was a colleague of his on the IOE faculty. We are extremely proud of all of our alumni contributions and continued success in both academic and industrial arenas. Please continue to share your accomplishments with us.

Also announced in this newsletter is the newly established Japan Technology Management Program (JTMP) Lean Fund, earmarked primarily to support student research. The impact of such gifts on IOE is significant. PhD student Bob Kucner’s work transforming Navy shipyards (see article on page 2 of this issue) was partially supported by this Fund. It is the generous support from many of our colleagues, alumni, and friends that helps us attract many such outstanding students. Additional student award-winners are also recognized in this edition.

And, of course, our faculty continue to excel. Bob Smith has received the University’s Distinguished Faculty Achievement Award. He and Katta Murty have been named Fellows of the Institute for Operations Research and the Management Sciences (INFORMS). Amy Cohn received the Elizabeth Caroline Crosby Research Award, and Mark Lewis has been named the Sloan Foundation’s Mentor of the Year. In December, Don Chaffin will receive an honorary degree from Kettering University.

The two newest members of our faculty, professors Goker Aydin (Stanford) and Vlad Babich (Case Western), are off to a successful start. I’m also pleased to announce that Professor Nadine Sarter from Ohio State University will be joining the department next fall. We are fortunate to have hired six new faculty members over the past two years to help us meet our increasing student enrollments. For over 500 undergraduates and several hundred graduate students IOE is the department of choice!

In the last newsletter, I described the ways in which the economy was beginning to affect our department and particularly our students. Fortunately, up until now, we have been able to preserve the core academic quality of our programs and our commitment to maintaining high standards in teaching, research, and service. As you may be aware, however, the State of Michigan is facing a $920 million budget deficit for the current year. The Governor and the Legislature are considering additional reductions in funding, including more cuts to public higher education. Higher education took a deeper cut than any other sector of the state budget last year. There is no doubt that additional reductions in state funding will challenge our capacity to serve our students.

At this critical point in time, we must ask for your support in helping us to uphold the high standards of excellence and superior IOE experience our students deserve. Your contribution, in any amount, will make a difference, and you can choose how. For example, a donation to the IOE undergraduate scholarship fund or the IOE graduate fellowship fund will help us to continue to attract outstanding students who may need financial assistance. A donation to the IOE special gift fund will help us maintain a rich intellectual environment for students, including seminars, research support, and enhanced growth opportunities. I realize that tough economic times trickle down to individuals, and you may also be experiencing the consequences. However, even small amounts from our large number of enthusiastic alums will have an impact on our ability to address the economic challenges we face. I thank you, in advance, for your consideration.

Finally, this is your newsletter, and we’d love to hear from you. Let us know what you’ve been up to and what stories you’d like to see. Please send your comments, suggestions for specific features, news items, etc. to seiford@umich.edu.

Happy Holidays and Go Blue!

Lawrence M. Seiford
Featured Program

Japan Technology Management Program Establishes Scholarship Endowment Fund

Professor Jeffrey Liker and the Japan Technology Management Program are proud to announce the establishment of the JTMP Lean Fund, a quasi-endowment fund at the University of Michigan Department of Industrial and Operations Engineering. This endowment has been created by revenue from the Lean Manufacturing Conferences. The Tenth Annual Lean Manufacturing Conference will be held May 10 – 13, 2004.

The JTMP Lean Fund’s main purpose is to fund UM student research related to world-class product development, manufacturing, and supply chain management as practiced by the leading Japanese manufacturers, and particularly the practices of Lean Manufacturing as best exemplified by Toyota Motor Corporation. In some cases, small grants will be made available to University of Michigan faculty as travel funds or for direct research expenses. This funding can also be used as matching funds for student internships related to Lean practices. The funds can help pay for travel and living expenses.

The first award of a JTMP Lean Fund was granted to Robert Kucner. Kucner is an IOE PhD student who has been studying Lean Manufacturing for three years under Dr. Jeffrey Liker. During the summer of 2002, he began working with Portsmouth Naval Shipyard where he is a Process Improvement Engineer (see article on page 2).

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Faculty News

Robert Smith has received the very prestigious Distinguished Faculty Achievement Award from the University of Michigan. Distinguished Faculty Achievement Awards recognize extraordinary achievements in teaching, research, creative work in the arts, public service or other activities that bring distinction to the University. Smith is the first IOE professor to receive this award.

His award citation describes him as an indefatigable and perceptive operations researcher, mathematician and scholar, with an overriding commitment to scholarship and quality. Legendary for insisting on complete and well-supported rigor in all aspects of his and his co-workers’ analyses, he also has been able to communicate successfully with industrial and commercial users of the various methods he has developed, coming up with apt examples and clarifications of otherwise daunting techniques, the citation continues.

Smith has produced seminal research in a variety of areas: infinite horizon optimization, capacity expansion, the foundations of dynamic programming, and the modeling of large-scale distribution and transportation systems. He has received the Research Excellence Award from his department four times since 1992-93, and the College of Engineering Research Excellence Award in 1999-2000.

The recipient of an Outstanding Teacher Award, Smith is, likewise, one of the most effective teachers in the college, his citation says.

His colleagues say he is steadfast in expressing opinions about important matters such as academic freedom, bureaucratic malfeasance, and student obligations to take their lives and work seriously.

Don Chaffin has been named to receive an honorary doctoral degree in engineering from Kettering University. This high honor will be awarded at the Kettering commencement on December 5, 2003. Chaffin, an alumnus of Kettering, will deliver the commencement address.

Katta Murty and Robert Smith have been elected as Fellows of the Institute for Operations Research and the Management Sciences (INFORMS). This award honors the most distinguished and illustrious members of INFORMS—those who have demonstrated outstanding accomplishments in operations research and management science.

Monroe Keyserling was again successful in being awarded a NIOSH training grant for the 2003-2004 academic year. The purpose of these NIOSH grants is to provide training for professionals and researchers in occupational health and safety disciplines. The NIOSH grant will fully support at least three IOE graduate students.

In addition to the academic component of the NIOSH training grant is a continuing education and outreach component that provides seed funding to support non-academic training for practicing professionals in occupational health and safety. This NIOSH grant support was also awarded for the upcoming year. Staff members in the IOE Department, led by Randy Rabourn, administer this program.

The Regents of the University of Michigan
David A. Brandon, Ann Arbor
Laurence B. Deitch, Bingham Farms
Olivia P. Maynard, Goodrich
Rebecca McGowan, Ann Arbor
Andrea Fischer Newman, Ann Arbor
Andrew C. Richner, Grosse Pointe Park
S. Martin Taylor, Grosse Pointe Farms
Katherine E. White, Ann Arbor
Mary Sue Coleman, ex officio

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Robert Smith received a new NSF GOALI grant: “Planning Horizons for Optimal Decision Making Over Time with Applications to Production Systems Optimization.” Daniel Reaume, Staff Research Engineer in the Enterprise Systems Laboratory at General Motors, is co-principle investigator. The overall goal of this research is to provide a rational framework that leads to a planning horizon choice that is efficient and yet far-sighted, leading to decisions which are undistorted by unanticipated end-of-study effects. Examples of such decision-making problems include the sizing and timing of capacity expansions, planning for production scheduling and maintenance tasking, and the replacement and acquisition of new equipment.

The models and methods developed will be validated on the problem of jointly optimizing manufacture and maintenance schedules in the context of vehicle production along a collection of production lines at General Motors. The research will be collaboratively pursued with faculty and students at the University of Michigan and research engineering staff at General Motors R & D Laboratories. Students will serve as interns at GM thus directly assisting in the transfer of technology both in the research and educational domains.

Monroe Keyserling has been appointed to serve as Chair of the National Institute for Occupational Safety and Health (NIOSH) Study Section. NIOSH is the federal agency responsible for performing research related to health and safety in the workplace. The Study Section is the advisory panel responsible for performing scientific peer review of investigator-initiated grant proposals submitted to NIOSH.

Tom Armstrong has just returned from a sabbatical leave where he spent four months at the Institute of Advanced Studies of the University of Bologna. He is collaborating with faculty at the University of Bologna Medical School on patterns of manual work and worker health. This work entails analysis of work patterns at several industries in the Emila Romagna province including manufacturers of small and large home appliances, garments, shoes and ceramic tile. He presented a paper entitled: “Normal Work Pace and Hand Activity Level at Six Italian Manufacturing Sites” at the May meeting of the Human Aspects of Advanced Manufacturing: Agility & Hybrid Automation in Rome. In this paper he examined normal work performance rates, physical work stresses and work design factors.

He presented a special guest seminar in June at the Institute of Advanced Studies entitled: “Human Work: Past, Present and Future – Some Ergonomic Considerations.” In this presentation he examined the importance of manual labor ergonomics in the past, present and future. Archeological excavations of tools show that the earliest humans were concerned with manual work and the design and use of tools to enhance their work performance. Hand tools and manual work performance have continued to evolve and are important factors in contemporary work settings including manufacturing, agriculture, offices, and health, among others. Although automation is becoming increasingly important in contemporary industry, manual labor will continue to be important in the highly dynamic lean work places of the future.

While on sabbatical, Armstrong was also able to devote time to the development of several computerized tools for analysis and design of jobs. These include computer programs for time study, time-based analysis of hand force and posture, simulation of hand postures and motions and simulation of assembly lines. These tools are being introduced in IOE 463 Work Measurement and IOE 567 Work Related Musculoskeletal Disorders this year.

Tom Armstrong and Sheryl Ulin received a grant from the State of Michigan to provide ergonomics job analysis and customized training seminars to small and medium sized Michigan companies. This grant allows the Center for Ergonomics to provide service to companies who may not otherwise utilize ergonomics job analysis design principles and to develop industrial partners for other activities. In the past, companies who participated in this project welcomed IOE students to study their manufacturing operations as part of course projects and independent study projects. Participating companies have also served as pilot sites for large research studies.

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Faculty News

Mark Lewis was selected as the Sloan Foundation’s Mentor of the Year. He received the award at the Compact for Faculty Diversity sponsored by the Southern Regional Education Board. This recognition is awarded annually to faculty who actively mentor undergraduate and graduate students who are underrepresented minorities.

Yili Liu continues to work with his PhD students to develop a queueing network model of the human mind and behavioral system and the corresponding cognitive performance analysis and simulation software. The most recent major progress is the doctoral dissertation research of Omer Tsimhoni, whose work enables the queueing network human performance model to steer a driving simulator in real time, while allowing us to visualize the internal information flows inside “the mind” during driving. A QuickTime movie can be found on the website http://www-personal.engin.umich.edu/~yililiu/cogmodel.html.

Don Chaffin reports that the first human motion prediction software will be showcased in its commercial format at the HUMOSIM Laboratory semi-annual meeting with their industrial partners in December.

The consortium partners (composed of Ford, GM, DaimlerChrysler, International Truck, Lockheed Martin, the US Postal Service, and the US Army-TACOM) have sponsored a variety of modeling and empirical studies for the last six years. Professor Julian Faraway, chair of the Department of Statistics, has developed this particular software package. It predicts how people of varying size perform reaches and move objects in a realistic fashion.

At the December HUMOSIM Laboratory meeting, this software is to be displayed while working within the popular CAD Digital Human Models known as Jack (from EDS) and Safework (from Delmia). In this form it will allow the partner companies to perform much more accurate and fast simulations of people to enhance vehicle and workstation ergonomics designs.

For more information on this and other models being developed in the HUMOSIM Laboratory, go to: www.HUMOSIM.org.

Jan Shi received the 2003 Excellence in Service Award from the IIE Transactions. He also gave an invited seminar in the Distinguished Seminar Series in the Department of Industrial and Manufacturing Engineering at Penn State University on October 2, 2003. His topic was “Stream of Variation Methodologies for Multistage Manufacturing Processes.”

Katta Murty has started preparing a series of books to help students develop the MM-C-A (mathematical modeling, computational and algorithmic) skills necessary to make engineering decisions. Believing that students can learn mostly by their own efforts from well written books, he is preparing these books in a self-teaching style, and making them available on the web, instead of publishing them on paper through commercial publishers.

So far he has completed one Sophomore level book for the MM-C-A skills of linear algebra. This can be seen at the following website: http://ioe.engin.umich.edu/people/fac/books/murty/algorithmic_linear_algebra/.

He has started work on a Junior level book, “Optimization Models for Decision Making.” The current incomplete version of this book can be seen at the following website: http://ioe.engin.umich.edu/people/fac/books/murty/opti_model/.

A subsequent Masters level book on this subject is also planned.

He welcomes comments, encouragement, and suggestions for good modeling problems.

Last year Murty was on sabbatical leave, visiting Seoul National University and POSTECH, in Korea, for work on combinatorial optimization problems at the steel company POSCO; University of Science and Technology, in Hong Kong, to complete the work on developing a DSS (Decision Support Systems) for daily operations in a container terminal; and Indian Statistical Institute in Hyderabad, India.

Barry Kantowitz has been selected to be facilitator for a Federal Highway Administration scanning tour of new developments in human factors abroad. He will be helping to select laboratories in England, The Netherlands, France, Israel, Germany, Sweden and Finland for the team of government, state highway, and research officials to visit June 11-27, 2004, as well as accompanying the tour and writing the team report. These visits help American researchers and administrators learn about leading-edge research in Europe.

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New Faculty

Goker Aydin
Assistant Professor

In finding solutions to supply chain problems, Goker Aydin prefers to take in the big picture. Aydin’s research interests are in the field of Operations Management with an emphasis on the interface between production and marketing decisions in a supply chain. He finds insights into problems by creating a mathematical model of the general business practices and analyzing that model. “Sometimes the explanations are counterintuitive. Surprising.”

His introduction to this field of research came in studying the grocery business. “It is easy to relate to stories about the problems in the supply chain of grocery stores,” says Aydin. “Everyone can relate.”

For the future, Aydin is looking at two topics of research that have to do with relational promotions. One is rebates, both rebates to the consumer and rebates to the retailer, also known as channel rebates. A second topic of interest to Aydin is the marketing of servers. Large companies such as Dell and HP essentially rent their servers to new and established companies using “pay as you go” or “pay as you grow” pricing.

Since joining the faculty in fall of 2003, his biggest challenge has been the transition into the professorial role. “I did not have a lot of teaching experience before coming here. I like teaching, but it has been a challenge.” He has been teaching a relatively small class, 40 students, which has helped. And, he adds, “Senior faculty members have been very good mentors.”

Another adjustment for Aydin has been the relocation from California to Ann Arbor. He received his PhD in Industrial Engineering from Stanford in 2003. Aydin has been pleasantly surprised by Ann Arbor. “I like it here very much. Ann Arbor has all the amenities of a big town without the hassle.” No stranger to the Midwest, he received his MS from Purdue in 1999. “After four years without a winter, I am ready.”

Volodymyr Babich
Assistant Professor

Traditionally, problems of finance and problems of operations are looked at separately. For Volodymyr Babich, the interface between these two areas provides a frontier. “I find this area of research incredibly exciting,” says Babich. “There are many interesting problems that have not been solved yet and I think that there are opportunities to make a significant contribution to practice and theory.”

Babich’s current research focuses on the effects of credit risk in supply chains, and the combined operational and financial decisions of the pre-IPO firms. These were the topics explored in his doctoral research at Case Western Reserve where he earned his PhD in Operations in 2003. He received his Master’s in Mathematics, also at Case.

The interdisciplinary study of operations and finance seemed a natural choice for Babich. After completing foundational studies in Operations, Finance, and Modeling Methodology, he started his research under the guidance of Professor Matthew J. Sobel, Department of Operations, and Professor Peter H. Ritchken, Department of Banking and Finance.

The models and methods used to find insights into problems at the interface of operations and finance come from supply chain management, industrial organization, operations, finance, financial engineering and game theory.

Babich’s favorite game, not in theory, is racquetball. Finding racquetball partners has been his biggest challenge since coming to Michigan, but he is now having success on this frontier as well.
Kudos

The IOE volleyball team ruled the sand court in match-ups with other engineering department teams during Geek Week. Clockwise from upper left: Team leader Marissa Ebersole displays her winning serve; Brian Cullinane and Brad Zylstra show teamwork; Bob Kucner spikes the ball; Kristi Schmidt cheers on the team while Mike Bauerly rests between games. Photos contributed by Larry Seiford.

IOE was the overall winner of the first annual Geek Week, October 6-10, 2003. Geek Week was sponsored by the North Campus Community Building Council to promote a sense of community on North Campus.

Activities included the Volleyball Tournament pictured above, an Intern Relay, and a clothing and canned food drive to benefit the needy. IOE dominated all events according to PhD student Marissa Ebersole.

IOE Student Awards

Wyeth Allen Scholarship
Veronica Chin
Clyde Johnson Scholarship
Kenneth Agacinski
Craig Frankland
Alan Becker
Derek Fahrer
Julie Van Helden
Mashid Pirzadeh
Meera Meerkov
Jeffrey Miller
Myun Lee Scholarship
Marc Berman
Rasch Scholarship
Bradley Belsky
Silent Hoist Material Handling Prize
Justin Kile
David Ciemnoczolowki
William Logozzo

Alumni Honors

Thom J. Hodgson, PhD, received the Albert G. Holzman Distinguished Educator Award from the Institute of Industrial Engineers.

Carter Kerk, PhD, CPE, and Associate Professor in Industrial Engineering at South Dakota School of Mines & Technology, was appointed to OSHA’s newly formed National Advisory Committee on Ergonomics (NACE). Kerk will chair the committee.

James Morgan, PhD, was runner-up for the Best Dissertation Award given by the Technology Management Section of INFORMS. Morgan is Director of Lean Product Creation at Ford Motor Company.
How can you...
...make a difference for IOE students?
...keep IOE on the leading edge?

Your tax-deductible gift to IOE will provide opportunities for students and keep our program strong. Designate your support to:

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Your gift enables us to develop programs that help to support student organizations, sponsor seminars and outside speakers, initiate student research efforts, pursue special recruiting programs, and many other activities to enrich the department.

**IOE Undergraduate Scholarship Fund**
Your gift enables us to make awards to undergraduates who have financial need, are outstanding students, or have exemplified exceptional leadership and character.

**IOE Graduate Fellowship Fund**
Your gift enables us to make awards to graduate students based on financial need, outstanding scholarship, teaching and/or research.

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1883 IOE Building
1205 Beal Avenue
Ann Arbor, MI 48109-2117
The annual IOE Picnic, organized by Alpha Pi Mu, offered an opportunity for Romesh Saigal to chat with IOE students (from left) Patrick Dennis Rich, Jeffrey Chang and Yao Cheng.

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Visit the IOE Website and look up friends and former classmates. Update your personal information at http://ioe.engin.umich.edu/alumnilist.asp.

Has your address changed? Do you have an item you would like included in a future IOE News?

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