

IOE News

FALL 2004

*The Newsletter of the
Department of Industrial and
Operations Engineering*

Mentoring a Mission for Mark Lewis



What could be more career affirming to a young faculty member than receiving the National Science Foundation's Presidential Early Career Awards for Scientists and Engineers (PECASE

Award) at a ceremony in the White House?

For Mark Lewis, IOE assistant professor, the answer is receiving the Harold R. Johnson Diversity Service Award from the University of Michigan. This award recognizes faculty whose service contributes to the development of a culturally and ethnically diverse campus community. Lewis, who also received the Sloan Foundations's Mentor of the Year award in 2003, attaches great importance to his mentorship role.

"I certainly appreciate the importance of the PECASE award. However, the number one goal of a faculty member, even at a research university like Michigan, is to identify and work with good grad students. Seeing their development is really what keeps us going," said Lewis.

Lewis began his academic journey at Eckerd College in Florida where he received a BS in

Mathematics and Political Science. He went on to obtain an MS in Theoretical Statistics from Florida State University, and his PhD in Industrial and Systems Engineering from Georgia Institute of Technology, with a thesis in Stochastic Dynamic Programming. He spent a year in Vancouver as a post-doctoral scholar at the University of British Columbia, before joining our faculty in 1999.

Lewis' impact on minority recruitment has been remarkable. According to IOE chair Larry Seiford, "We had no minority PhD students in Industrial and Operations Engineering when Mark joined the department. We now have ten excellent PhD students that are minorities." Seiford states further, "We are counting on Mark's help to achieve another of our goals: to recruit outstanding faculty representative of our diverse student population."

Because of his outstanding technical achievements, Lewis is highly sought after to give guest lectures at other universities. He also receives many requests to participate on campus committees. These commitments, along with all the regular demands on a faculty member's time, make Lewis' success in mentoring minority students all the more extraordinary.

IOE PhD student Warren Sutton states, "From the beginning of my stay here at Michigan, Professor Lewis has been a guiding influence on my academic track. Upon my arrival here he spent multiple hours assisting me in selecting a research area of interest and directing my academic progress. Taken as a whole, his understanding has done a great deal to help make Michigan my new home."

INSIDE

Chair's Message	2
Featured Program	3
Alumni Merit Award	4
Student Success	5
Special Honors	6

Chair's Message

As I start my fifth year as Chair, I'm pleased to report that our department continues to thrive. Last year we hosted an External Department Review by a distinguished panel of academics and industry practitioners. This was followed by an IOE faculty retreat to address suggestions of the review team. The College of Engineering recognized our growth and, as a result, we are currently searching to fill three additional faculty positions in the areas of production, simulation/stochastic modeling, and quality engineering.

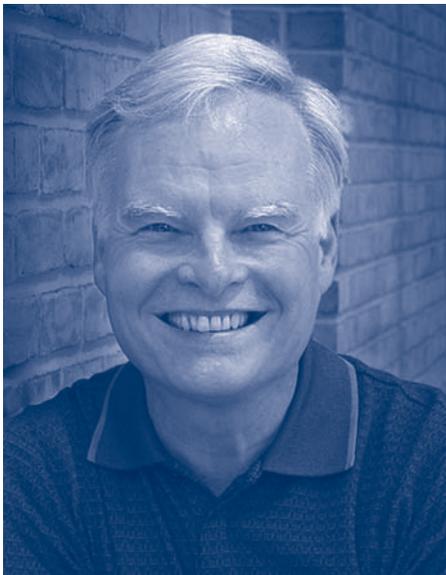
I'm pleased to announce that Professor Nadine Sarter from Ohio State University joined the department this Fall as a member of our cognitive ergonomics group. She brings an active research program focused on the design and evaluation of multimodal interfaces, human error and error management, attention management, and the design of decision support systems. Applications include aviation, military operations, and the modern car cockpit.

Our faculty continue to maintain a strong global perspective and significant international visibility and impact. Professor Jeff Liker's new book, "The Toyota Way: 14 Management Principles from The World's Greatest Manufacturer," is a business best-seller and has been translated into nine languages. Our Six Sigma Online Green Belt Certification Program developed by Professors Gary Herrin and Pat Hammett is offered worldwide in eight languages and has enrolled 5800 students. A sample lecture in the various languages can be seen at <http://cpd.engin.umich.edu/showcase/index.html>.

This issue of our newsletter profiles

one of our outstanding young faculty, Assistant Professor Mark Lewis, who recently received several high profile awards. We also feature alumnus Dr. W. Peter Cherry, the IOE Alumni Society Merit Award recipient for 2003.

Our students continue to excel and are frequently recognized for their exceptional leadership. IOE student



leader Eli Cooke, currently finishing his Master's degree, was awarded the Hugh G. Rumler Prize. We've included the speech he delivered at the Honors Brunch that highlights his Michigan experience as a memory to be cherished.

As most of you probably know, the University of Michigan has launched a historic \$2.5 billion capital campaign, *The Michigan Difference*. For its part, the College of Engineering's *Progress & Promise: 150th Anniversary Campaign* has an ambitious goal of \$300 million. Professor Don Chaffin is co-chairing the faculty and staff fundraising effort for the College. A substantial number of

faculty and staff have made commitments including 41 Charter Donors, each of whom has pledged a gift of \$10,000 or more. After meeting many of you, I am confident that no other department in the entire University can match us in alumni enthusiasm and loyalty. Please use the form in this newsletter to do your share to prove us right. Naming opportunities are available for larger gifts. I would be happy to speak with you about such possibilities if you are interested.

In closing I want to share with you the following email that I recently received from a recruiter.

"I just got back from two days of interviewing at U of M and wanted to take a moment to provide you with feedback on the IOE program. Over the years, I have interviewed hundreds of candidates from many different schools and I have not seen a group of candidates that match up to the students of the IOE program at Michigan.

The students I interviewed had a great grasp on how to bring analytics to solving real world business problems. Their technical ability matched up with business knowledge is a powerful combination that will serve them well wherever their careers will take them."

This unsolicited feedback indicates to me that our IOE education is on target.

Finally, this is your newsletter, and we'd enjoy hearing from you. Please send your comments, suggestions for specific articles, news items, etc. to seiford@umich.edu.

Happy Holidays and Go Blue!

Lawrence M. Seiford

Featured Program

IOE Graduate Students, Faculty and Staff Establish New Tradition



IOE PhD students and their spouses celebrate the end of the year. From left: Cristina Pomales-Garcia and Hector Carlo-Colon, Mr. and Mrs. Jihyun Kim, and Mr. and Mrs. Dohyun Pak.



Bottom left: Key banquet organizer Mark Krankel (right) enjoys the evening with his wife (center) and Master's student Yolanda Alexander (left).



Bottom right: Mike Bauerly (left) and Kristi Schmidt (center) receive their "award" from Damon Williams (right).

The First Annual IOE Graduate Student Spring Banquet was held on April 14, 2004 at Weber's Inn in Ann Arbor. Organized by the graduate students, the evening provided an opportunity to celebrate the achievements of the past year among the IOE family. For some it was also a chance to come together one more time before moving on to new endeavors.

Graduating Masters and PhD students were recognized. The highlight of the evening was the presentation of the "lite" awards. Created and presented with great flourish and impeccable comedic timing by IOE PhD student Damon Williams, the awards were a lighthearted look at the unique personalities and memorable moments of the 2004 academic year.



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Mary Sue Coleman, *ex officio*

Cherry Receives 2003 Alumni Merit Award



W. Peter Cherry, 2003 IOE Alumni Merit Award winner, is congratulated by Stephen Director, Robert J. Vlasic Dean of Engineering, and Larry Seiford, Chair of IOE.

W. Peter Cherry currently leads the Integration, Simulation and Test Product Team at Science Applications International Corporation developing Future Combat Systems (FCS) to transform the Army for global operations over the next 30 years. Prior to joining Science Applications International, he spent more than 30 years with Vector Research Incorporated and its successor, the Altarum Institute.

Dr. Cherry began his professional career in the field of maritime operations research in the Department of National Defence in Canada. Since the completion of his master's and doctoral degrees in industrial engineering at the University of Michigan in 1970 and 1972, Dr. Cherry has focused on the development and application of operations research in the national security domain, primarily in the field of land combat. He contributed to the development and fielding of most of the major systems currently employed by the Army, ranging from the Patriot

Missile System to the Apache helicopter, as well as the command control and intelligence systems currently in use. In addition, he contributed to the creation of the Army's Manpower Personnel and Human Factors and Training Program and to the Army's Embedded Training Initiative. His recent research interests include Peacekeeping Operations and the development of transformational organizations and material.

Dr. Cherry is a member of the Army Science Board and for the past ten years has participated in independent reviews of the Army's Science and Technology programs. He has published articles in several operations research journals and served on the board of directors of the Military Operations Research Society. He served as chair of the Military Applications Society of the Operations Research Society of America and is presently a vice president of the Institute for Operations Research and the Management Sciences.

Student Success Story

The following speech was delivered at the Honors Brunch on March 14, 2004 by IOE student Eli Cooke, recipient of the Hugh G. Rumler Prize which is presented to a senior-year student on the basis of sincerity, integrity, goodwill and scholarship.

Thank you to University of Michigan faculty and staff, distinguished guests, family, friends, parents, and, of course, Michigan students.

Times of transition are best suited for reflection on phases of life just ended and those just beginning, including ideas of sincerity, integrity, and goodwill. Let us focus this morning on a subset of those three: opportunity and diversity.

Before beginning in earnest, some background information: I grew up and spent 16 years of life in the rural college town of Moscow, Idaho. My father is a professor of agricultural economics, my mother is a welfare lobbyist for a nonprofit, and my brother is 7 years younger and a freshman in high school.

My journey truly began down the road at Michigan State. I was born on February 2, 1982 to two Michigan State graduate students. Moving forward 18 years to the dining room table in Idaho as I announced my desire to become a Michigan Wolverine, the look in their eyes said, "Where did we go wrong?"

On August 27, 2000, I arrived on the Michigan campus for the first time as an enrolled student. Already sweating from the heat and humidity of the Michigan August, I was not in the highest of spirits. Homesick from just having said goodbye to my family and heartbroken from having kissed my high school

girlfriend goodbye, little did I know that I was just about to meet my role model and mentor for my Michigan experience.

His name was Matthew Neagle, my RA on the 5th Scott floor of Mary Markley residence hall. Through our conversations he taught me of the opportunity I mentioned earlier, and that the college campus could be as small and as varied as I wanted it to be with a student group for every interest.

Matthew's impact on me was great. We shared the same major (Industrial and Operations Engineering), the same Academic programs (Engineering Global Leadership and Tauber Manufacturing Institute), and the same student group (AIESEC Michigan, dedicated to international and cultural understanding and awareness through internships abroad).

If opportunity is the breadth of a college experience, then diversity is the depth.

- Eli Cooke

However, Matthew gave me more than opportunity; he also gave me my first appreciation of diversity. Through AIESEC, I interacted for the first time with people who exhibited a diversity of ethnicity, a diversity of interest, and a diversity of opinion. These interactions with people expanded my own perspectives and helped to make them more

complete.

If opportunity is the breadth of a college experience, then diversity is the depth. The combination of the two instilled in me a desire to reach out to new parts of campus: student government, community outreach, peer mentorship, club sports, and engineering societies, each with their own group of people and each with new and different perspectives.

However, while both opportunity and diversity are paramount to a college experience they combine to give rise to something greater still: an appreciation for people. For it is not the opportunity or the diversity that make a college experience great and memorable, but the people interacted with along the way, in those student groups and through that combination of opportunity and diversity.

To come full circle, I too, like Matthew before me, am now an RA. Within East Quad residence hall I hope to complete my experience. Up to this point there have been three stages: first mentorship (Freshmen year), then experiencing diversity, opportunity, and ultimately interacting with people (Sophomore and Junior year), and finally, while continuing to experience and interact, becoming a mentor myself. Thus, within East Quad's First South Hall I have been able give back from my experience to those who are still searching to find their way. Because it's this appreciation of opportunity and diversity that makes a college experience great. And it is these interactions with people that make the college experience a memory to be cherished for always.

*- Eli Cooke
BSE IOE '04*

Kudos

IOE Alumni Honored

Professor Thom Hodgson from NC State (PhD '70) received the IIE Society's Frank & Lillian Gilbreth Award, the highest award presented by IIE. This award recognizes those who have distinguished themselves by contributing to mankind through the use of industrial engineering.

Professor Marlin Thomas from Purdue (PhD '71) received the IIE Society's Albert G. Holzman Distinguished Educator Award which recognizes outstanding educators who have contributed significantly to the industrial engineering profession.

The IIE Society for Work Science presented the Ayoub Award for contributions to ergonomics to our own Professor Don Chaffin (PhD '67).

W. Peter Cherry (PhD '72) received the Center for Naval Analyses' Steinhardt Award for "...lifetime contributions to the practice of military operations research..."

Jeffrey Ohlmann (PhD '03) has been awarded the 2004 Dantzig Dissertation Award by the Institute for Operations Research and the Management Sciences (INFORMS). Ohlmann is an assistant professor at the University of Iowa.

IOE Scholarship Winners for 2004

Accenture Scholarship

Angela Galardi
Kristin Neubauer

Wyeth Allen Scholarship

Kristen Neubauer

Walton Hancock Scholarship

Joshua Embree
William Logosso
Derek Fahrer

Clyde Johnson Scholarship

Kristen Neubauer
Ryan Rindler
Sara Curin

Myun Lee Scholarship

Jordan Funk

The Wilson Prize

David Kaufman

IOEs Win Best Paper Awards

IOE doctoral student Omer Tsimhoni received the Best student Paper Award for 2003 from the Surface Transportation Technical Group for "Modeling Steering Using the Queueing Network-Model Human Processor (QN-MHP)" with Dr. Yili Liu.

IOE undergrad Margie Krakauer won the 2004 Student Technical Paper Competition of the Detroit Chapter IIE for "Nephrology Clinic Efficiency Analysis."

CoE Recognizes IOE Students

The A. D. Moore Award

Ryan Rindler

Marian Sarah Parker Prize

Marissa Ebersole

Hugh G. Rumler Prize

Eli Cooke

IOE Undergraduate Distinguished Achievement Award

Bradley Belsky

IOE Graduate Distinguished Achievement Award

Darby Grande

Harry Benford Award for Entrepreneurial Leadership

Alan Becker

NSF Fellowship

Mike Bauerly received a NSF Graduate Fellowship for 2004.

Honorable mentions were awarded to Pierre-Yves Brunet, Melinda Davey, Joseph Tanniru and Damon Williams.

PhD Student Elected Fellow

IOE PhD student Cynthia Veenstra has been elected a fellow by the American Society for Quality (ASQ). She was cited for promoting reliability engineering in her career as a reliability engineer and consultant.

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:

IOE Special Fund

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.

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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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\$250

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Other _____

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My check payable to: University of Michigan-IOE (Checks are deductible in 2004 if postmarked before 12/31/04)

Charge my gift of \$_____ to my:

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AMEX

Account Number

Expiration Date

Signature (for credit card gift)

To be processed by year end, credit card gifts must reach us by 12/17/04. If you wish to make a gift by credit card after 12/17/04, please call (734) 647-7785 9a.m.-4p.m. EST or online at www.giving.umich.edu.

Send to: Nancy Murray
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Seth Bonder is congratulated by Larry Seiford following the inaugural Wilbert Steffy Lecture.

The inaugural Wilbert Steffy Distinguished Lecture was delivered by Seth Bonder, founder and former CEO of Vector Research, Inc. and a former IOE faculty colleague of Professor Steffy. Dr. Bonder's talk, "On Improving OR

Support for Healthcare Delivery Systems—Guidelines from Military OR Experience," was well attended by faculty, staff, students, and healthcare professionals. The Lectureship was established by an endowment from Doris Steffy in memory of her husband to bring a distinguished individual in Industrial and Operations Engineering to lecture to the faculty, students, staff, and public and to promote intellectual exchange between UM researchers and other internationally recognized leaders. This academic year's Steffy Distinguished Lecture will be given by Tom Magnanti, Dean of Engineering at MIT, on Thursday April 14, 2005.

Alumni - Stay Connected!

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

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

*Send your information to nmurray@umich.edu, or by mail to:
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