Dean’s Award Presented to Steven Lerner

Each year the School of Engineering and Applied Sciences (SEAS) gives its highest honor, the Dean’s Award for Achievement, to someone who has made a substantial contribution to the practice of engineering or the applied sciences. Quite often the recipient has also performed outstanding service for the school or university.

This year’s recipient – Steven L. Lerner, Praxair senior vice president and chief technology officer – has excelled in all of these areas.

Lerner joined Praxair in 1989 as manager of process chemistry in Applications Research and Development. He has been promoted through the Process and Systems division at Praxair, serving as associate director, director, and vice president.

Lerner earned a bachelor’s degree in mechanical engineering from The Cooper Union, New York. He received a doctorate in mechanical and aerospace engineering from Princeton University, where he was a recipient of a Guggenheim Fellowship. He is also a graduate of the Stanford Executive Program.

2005 UB Alumni Association Awards

Each year the UB Alumni Association (UBAA) holds its annual Celebration of Excellence Dinner in the spring to recognize alumni and friends for their outstanding achievements, their distinguished contributions, and their support of the University, the community, and their professions.

Kenneth Manning, BS Eng Sci ’74, JD ’77, received the Philip B. Wels Award, which is presented to individuals who have greatly enhanced the quality of life of the entire UB community. Manning exemplifies a dedicated alumnus and volunteer who has contributed to and advanced UB through his numerous areas of service.

Hadi Makarechian, BS CIE and Economics, ’72, was given the Distinguished Alumni Award in recognition of exceptional career accomplishments. Makarechian is Chairman of the Board, Chief Executive Officer and President of Capital Pacific Holdings, a diversified real estate company headquartered in Newport Beach.

Lawrence Peckham, BS IE ’69, MBA ’74, was given the Clifford C. Furnas Memorial Award which is presented annually to a graduate of SEAS or natural sciences and mathematics who has distinguished himself/herself in a field of science. A self-made businessman, Peckham is the retired founder and chair of LPA Software, Inc., a major player in commercial software systems for inventory control, warehousing, defect management and supply chain management. Shortly after earning his undergraduate degree, Peckham joined Xerox, where he employed his proficiency and industrial engineering knowledge for three years in distribution engineer-

UB 2020: Strategic Strengths Set New Agenda

President John Simpson and Provost Satish Tripathi are undertaking a major planning initiative with faculty named UB 2020 to develop a focus for the university, its schools and colleges. The first phase of the comprehensive and inclusive planning process involved considering the myriad of research interests of the current faculty. From this, ten “strategic strengths” have been chosen as areas in which UB has the opportunity to build a foundation for academic excellence.

- Aging and chronic disease
- Artistic expression and performing arts
- Bio-defense and response to catastrophic events
- Bioinformatics and health sciences
- Civic engagement and public policy
- Clinical sciences and experimental medicine
- Information and computing technology
- Integrated Nanostructured Systems
- Literary, cultural and textual studies
- Molecular understanding of biological systems

These strengths highlight areas of current research and define areas that the University feels are among its best chances for achieving significant academic prominence. SEAS research is featured in a number of these strategic strengths.

“Our own research focus planning activities in SEAS have been ongoing since 2000 and dovetail very nicely with this campus-wide planning initiative. I anticipate an exciting future for SEAS working within President Simpson’s and Provost Tripathi’s vision,” noted Dean Mark Karwan.

The strategic planning process will enable UB to design an academic plan with a supporting, overarching campus master strategy. This roadmap for UB’s future will allow us to realize our full potential and to achieve academic excellence.
Dear SEAS Alumni,

The UB Engineering and Applied Sciences Alumni Association (EASAA) has once again enjoyed a successful and active year. We have taken in fun events such as UB basketball and football games and have honored current SEAS students with EASAA scholarships. Plans for the 2005-06 AY are already underway and we hope you will be able to join us for fun with your fellow SEAS alumni. We will be starting our events with a fall tailgate at UB’s home opener against Rutgers on September 17. The grills will get going at 4:30 p.m. in time for food and laughs before the 6:00 game.

Central to the activities we have planned is the necessity of the group to earn income through membership dues. We are very pleased to have entered into joint membership with the UB Alumni Association (UBAA). This will allow EASAA to continue to program its many events for SEAS alumni and current students. In addition, joint membership gives EASAA members access to the UBAA and its comprehensive program of outreach to UB alumni throughout the nation and world. UBAA has 20 chapters in the U.S. and 11 international chapters. They are active in bringing current students together with alumni for professional mentoring. They also have an outstanding program to recognize leading alumni, The Celebration of Excellence, an event which honored three outstanding SEAS alumni this year. The Pillars Society is a distinguished group within UBAA, honoring all UB graduates of 50 or more years ago at an annual luncheon Homecoming weekend. EASAA is excited for the new opportunities we will have to work with UBAA to continue and expand our tradition of excellence in alumni programming.

Your UB EASAA urges you to join us in accomplishing the goals we have for SEAS programming. For membership information, please see information under “New and Improved Membership.”

Together, we can continue the SEAS tradition of excellence.

New and Improved Membership

We are pleased to offer joint membership with the UB Alumni Association (UBAA). This cooperation between UB EASAA and UBAA will provide you the best from both organizations—the membership benefits and activities of the larger university group blended with our personalized, SEAS-focused activities.

Rest assured that UB EASAA will continue to serve SEAS, its students, and its alumni as it has in the past.

To renew or begin membership, go to www.alumni.buffalo.edu. Once there, click on the “Membership” tab at the top right. Then, in the left column, you can join either online or by mail. Be sure to notice the special membership type for SEAS alumni.
Class Notes

Thomas Billings, BS IE ’80, ME IE ’91, has been named a partner in Bridgepoint Partners, a Buffalo-based retail consulting firm offering custom software solutions. Billings has more than 20 years experience in distribution and engineering.

Kevin Christenson, BS ME ’03, has been added as an inside salesperson at Trane. He previously worked in the company’s Albany location.

Lawrence Eusanio, BS ME ’56, MS ME ’61, received the American Institute of Aeronautics and Astronautics biannual award for outstanding contributions to improve survivability of aircraft. Eusanio is currently a Research Staff Member at the Institute for Defense Analyses (IDA) where he leads a team that supports the Office of the Secretary of Defense in test and evaluation of military aircraft.

Robert Gengelbach, BS ME ’87, has joined the consulting engineering firm Byce and Associates, Inc. as general manager of the Grand Rapids office. Gengelbach specializes in heating, ventilating and air conditioning (HVAC) and plumbing design, and HVAC commissioning for health care, institutional, educational, industrial, and commercial projects. As a Leadership in Energy and Environmental Design certified designer he will promote energy efficient and reliable mechanical designs and will be responsible for client development.

Kannankote Govindaraj, PhD EE ’76, has been promoted to vice president of Technical Operations for the newly re-formed Calspan, a Cheektowaga technology company. Previously, Govindaraj was technical director at the company.

Bruce Heine, BS CIE ’81, has been promoted to vice president at National Fuel Gas Distribution Corporation. Heine is responsible for the utility’s Gas Supply Administration function, which includes negotiating gas purchases and ensuring that customer’s gas supply needs are met. Additionally, he is responsible for sales and marketing functions and the customer service division of the company.

Richard Kraft, BS CIE ’76, has been named director of technical services and manager of special inspections at SJB Services, a geotechnical and environmental testing and consulting company. Kraft is a registered professional engineer in New York and Florida and brings 24 years of experience in project management, design and construction supervision to the company.

Quinna Jia, PhD EE ’91, is a Laboratory Fellow and Team Leader for the Electronic Materials and Devices Team at the Los Alamos National Lab in New Mexico.

Basil Jos, BS CSE ’04, has been commissioned a second lieutenant in the Air Force after graduating from Officer Training School at Maxwell Air Force Base in Montgomery, AL. Jos is a developmental engineer assigned to the Air Force Research Laboratory – Rome Research Site in Rome, NY.

Joseph Kolly, PhD ME ’96, has been named Deputy Director of the management team of the National Transportation Safety Board. Kolly started at the Safety Board in 1998 as a Vehicle Performance Engineer and later held positions as a Fire and Explosion Investigator, a National Resource Specialist for Applied Research, Chief of the Vehicle Performance Division and Acting Deputy Director. Formerly, he worked as a research scientist at Calspan/UB Research Center.

Class of ‘55 to Celebrate 50 Years

Join the Class of ‘55 for its annual summer picnic on July 30, 2005 at the home of Dan Clark, BS EE. The group has been meeting for a number of years to enjoy an afternoon of catching up with classmates and their families. This year the group will celebrate its fifty year reunion. Make plans to attend this special day.

For more information, contact Dan at n2dc adelphia.net.

Maria Lehman, BS CIE ’81, has been appointed vice president in the Buffalo office of URS Corp., an engineering firm. Lehman was most recently Commissioner of Public Works for Erie County.

Yin Li, MS CSE ’03, has been named database programmer/analyst at Hilbert College. Previously, Li was database administrator at Viacom Climate Control System.

Jeffrey Markin, BS IE ’80, was appointed Vice President of Eastman Kodak Company by the Board of Directors. Markin has been serving as General Manager, Regional Operations for Kodak’s Health Group. He joined Kodak in 1980 and has served in a number of management positions including Business Manager for Kodak’s Office Imaging Media Products group and Director of Marketing, U.S. and Canada region, for the company’s Document Imaging business.

Chris Marrion, BS EE ’86, has been promoted to associate principal with Arup Fire and runs their New York office. He was recently interviewed on the History Channel for his work on the World Trade Center following September 11, 2001 and his work with FEMA.

Levent Onural, PhD EE ’85, is a professor at Bilkent University, Ankara, Turkey. He was one of three nominees for 2005 IEEE President-elect. He is very active with IEEE, having served on the Board of Directors, the Executive Committee, in the Assembly, as Secretary, and as Associate Editor of IEEE Transactions on Circuits and Systems for Video Technology.

Donald Smith, BS ME ’89, has been promoted to President – Operations at Omega Polymer Technologies. He will be part of a team appointed to lead the company’s Omega Pultrusions and Carsonite International subsidiaries. Smith joined the company in 2001 as Vice President of Operations of Carsonite International in South Carolina and was named Senior Vice President of Operations for both Omega Pultrusions and Carsonite International in 2004.

Andrew Sperazza, BA CS ’96 BS EE ’97, has joined Engagement Systems, LLC as Chief Technology Officer. Sperazza will be responsible for technological development of Engagement Systems products, including its flagship offering, Skill Weighted Portfolio™, a web-based tool that helps independent financial advisors and fiduciaries differentiate their investment practices in the crowded affluent market.

(continued on pg. 19)
Engineer of the Year

The University at Buffalo’s Engineering and Applied Sciences Alumni Association chose Irving Shames, Distinguished Teaching Professor Emeritus, as their 2005 Engineer of the Year. Each year the UB EASAA recognizes a person related to the School who has made outstanding contributions to the profession, the public welfare, and humankind.

In his distinguished career, Shames has been recognized for his commitment to engineering instruction at both UB and George Washington University. At UB, he received the Chancellor’s Award for Teaching Excellence in 1973; he was made a Faculty Professor in 1979; and the SUNY Trustees acknowledged his preeminent teaching abilities by according him its highest honor: Distinguished Teaching Professor in 1980. He also was the first-ever recipient of both the Faculty Teaching Award, in 1966, and the Student Teaching Award, in 1975. He was twice awarded the Tau Beta Pi’s Professor of the Year award. During his tenure at UB, Shames was a principal architect of academic programs in Aerospace Engineering, Engineering Science and Nuclear Engineering and chaired the Division for Interdisciplinary Studies and Research and the departments of Engineering Science, Aerospace Engineering and Nuclear Engineering.

Throughout the 1980s and early 90s, he was UB’s lead instructor for mechanics, which includes the fundamental undergraduate engineering courses that all engineers must take. He is a prolific author whose textbooks have been translated into numerous languages for use around the world.

Shames is currently a Distinguished Professor at George Washington University.

PE Contact Hours for License Renewal

SEAS is pleased to be recognized as an approved NYS provider site for professional engineer continuing education. SEAS provides PE Continuing Education options in three forms:
1. Graduate courses via our distance learning system EngiNet™
2. Special short courses
3. Departmental seminars

For further information, registration, or particular company needs, contact Marge Hewlett, mhewlett@eng.buffalo.edu, 716/645-2768 x1106.

Abbreviations Used in SEAS News

CE, Chemical Engineering
CBE, Chemical and Biological Engineering
CSE, Computer Science and Engineering
CompE, Computer Engineering
CSEE, Civil, Structural and Environmental Engineering
CIE, Civil Engineering
EE, Electrical Engineering
ES, Engineering Science
EnvE, Environmental Engineering
IE, Industrial Engineering
MAE, Mechanical and Aerospace Engineering
AE, Aerospace Engineering
ME, Mechanical Engineering

EngiNet™ Offerings

EngiNet™ is principally a graduate-level distance learning program. We offer courses year-round in the following areas.

Civil, Structural and Environmental Engineering
Computer Science and Engineering
Electrical Engineering
Engineering and Applied Sciences
Industrial Engineering
Mechanical and Aerospace Engineering

Summer 2005 courses are starting now! Fall courses will begin in August. Contact us to enroll.

For more information, contact Marge Hewlett, EngiNet™ Administrator at the School of Engineering and Applied Sciences: 716/645-2768 x1106 or enginet@eng.buffalo.edu.

UB EASAA Ready to Rally for The Bulls

The UB EASAA invites you to the first alumni event of the 2005-2006 academic year. Join us Saturday, September 17, 2005 at 4:30 p.m. for the Annual Football Tailgate prior to the 2005 home football opener against Rutgers.

For more information, including ticket info, please call (716) 645-2768 x1110 or e-mail Hedrick@eng.buffalo.edu.
Engineers Cheer for The Bulls

Alumni, students, faculty, and friends joined for the 18th annual SEAS at UB Basketball event. Everyone enjoyed cheering the Bulls on to a win and celebrating afterwards with a pizza party. The UB Engineering and Applied Sciences Alumni Association presented the Engineering Spirit Award to the UB chapter of the American Society of Civil Engineers. The group has won the award for three consecutive years.

EASAA and the UB Alumni Association (UBAA) invite all graduates of 50 of more years to attend the annual Pillars Society luncheon on Friday, October 7. For more information, please contact UBAA at 1-800-BUILD-UB.

Alumni Awards: Peckham
(continued from pg. 1)

ing. He left Xerox to pursue an MBA, but the corporate giant encouraged him to begin his own business so they could contract some of their computer programming needs with him. LPA was created in 1972. In 1985, LPA’s 12-year business plan called for an annual growth of 25 percent, a mark that was met or exceeded each year. Over the next 13 years, LPA expanded its operations and developed its own products: industry-leading “supply chain” software and a semiconductor defect tracking system launched three years apart. Twenty-six years after its modest beginning, LPA was sold to Xelus, where it continues today. Along the way, LPA was named one of Rochester’s fastest-growing companies and Business Strategies Magazine named Peckham its 1998 businessperson of the year.

A heavily-involved Rochester-area volunteer, Peckham is a member of the SEAS Dean’s Council and an active participant in the Council’s encouragement of the School’s strategic planning effort. In 2002, Peckham received the SEAS Dean’s Award, its highest honor. He is a Gold member of the School’s Delta Society.
SEAS Commencement ‘05

Chancellor’s Award for Student Excellence

Graduating with a bachelor’s degree in computer and electrical engineering, Matthew Watkins has been involved in a number of extracurricular pursuits both in and outside of the engineering field, including playing in UB’s jazz big band and tutoring at a local middle school. A member of numerous honor societies, during his senior year he served as president of the Tau Beta Pi and Golden Key International Honor Society chapters at UB. He has received a number of awards recognizing his work and academic achievement. As president of Tau Beta Pi, he gave the student address at SEAS commencement. Watkins was also involved in research to create a multimodal biometric system incorporation “live and well detection.” In the fall he will be attending graduate school to pursue his doctorate.

Students who participated in SEAS commencement ceremony included:

Banner Carrier
Jason Lee Havens
Vice President, UB Chapter of American Society of Civil Engineers, BS CIE ’05

Salutation
Brian J. Peer
President, UB Chapter of American Institute of Chemical Engineers, BS CE ’05

Student Address
Matthew A. Watkins
President, New York Nu Chapter, Tau Beta Pi, BS CompE and EE ’05

Farewell
Rosaleen B. Rauch
President, UB Chapter of Chi Epsilon, BS CIE and BA in Anthropology ’05

Racing Through France

UB’s Solex Club students have been working on their 2005 entry for the International Solex competition in France. Last year, UB SEAS students distinguished themselves at the races in Troyes and Chaumont as the only American team participating in the competition. The race asks participants to modify a Solex bicycle, a motor-assisted bicycle with a 49cc two-stroke gasoline engine. The bicycles were originally designed and sold in France during the late 1940’s and are experiencing a resurgence with the popularity of the Solex events across France. In 2004, the UB team participated in two races, winning second place in the International Division for the 24-hour Chaumont race. Races are won by going the farthest distance in the allotted time, testing the endurance of both the bicycles and the riders.

Club advisor Joseph Mook, professor and chair MAE, noted that many participants are professional mechanics which have been racing for 15 years. UB Solex Club President Lindsay Volaski, ME and AE said, “The local people were very excited to have American teams participating in the event.” In their first year of participation, the group was featured in an interview on French National TV. The Solex Club of 15 students has high hopes for applying the lessons learned last year to their 2005 entry in the Super-Prototype Division.

Tau Beta Pi Graduates
New York Nu Chapter

Sulochan Acharya EE
Daniel Bennett EE
Suvesh Bhattarai EE
Brad Schwagler CompE
Brian Bradford AE ME
Ryan Bradley EE CS
Colleen Bronner EnvE
Amanda Burger IE
Eric Caruana CBE
Gregory Chapman CompE EE
Yew Jin Chee ME
Wai Keong Chooong CBE
Ravi Chopra CBE
Melissa Chow CBE
Chingsheng Chu EE
Jonathan Clemens ME
Robert Clemmons ME
Erich Devendorf ME
Isidore Dinga Madou CompE
Christopher Dolen CompE
Meboungu Laze Drabo AE
William Ebsary ME
Justin Frascino ME
Benjamin Freer EE
Christophor George CSEE
Robert Giza AE ME
Shu Ting Goh AE
Donald Guttillo IE
Evan Haas CompE
Jennifer Haendiges ME
Daniel Hallenbeck CompE
Adam Halstead EE
Evan Halstead EE
Alex James CompE
Holly King MAE
Brian Kohler ME
Cloud Kafai Lee MAE
Jong Weon Lee EE
Thomas Liebner MAE
Tze-Jan Lin ME
Caitlin Mahon EnvE
Nilesh Malhotra EE
Nate Marshall CSEE
Peter Mersch EE
Ganhsuoo Moon CompE
Matthew Morse ME
Kristen Ondesko ME
Chang Young Park EE
Brian Peer CBE
Michael Pletsch EE CS
James Pieszala EE
Rachel Piskorowski ME
Rosaleen Rauch CSEE
Valerie Ringler MAE
Michael Sellers CBE
Jawaad Sheriff ME
Mark Smith ME
Mylinda Snyder IE
Shahrooz Soltani
Bidokhti Envi
Tai Boon Tan CBE
Victoria Tomei CBE
Gregory Torbenson
CompE
Matthew Watkins
CompE EE
David Wilbert CBE
Demissie Wolde-Gabriel
ME AE

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Ravi Chopra CBE
Melissa Chow CBE
Chingsheng Chu EE
Jonathan Clemens ME
Robert Clemmons ME
Erich Devendorf ME
Isidore Dinga Madou CompE
Christopher Dolen CompE
Meboungu Laze Drabo AE
William Ebsary ME
Justin Frascino ME
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Shu Ting Goh AE
Donald Guttillo IE
Evan Haas CompE
Jennifer Haendiges ME
Daniel Hallenbeck CompE
Adam Halstead EE
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Jong Weon Lee EE
Thomas Liebner MAE
Tze-Jan Lin ME
Caitlin Mahon EnvE
Nilesh Malhotra EE
Nate Marshall CSEE
Peter Mersch EE
Ganhsuoo Moon CompE
Matthew Morse ME
Kristen Ondesko ME
Chang Young Park EE
Brian Peer CBE
Michael Pletsch EE CS
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Rachel Piskorowski ME
Rosaleen Rauch CSEE
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Mark Smith ME
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Gregory Torbenson
CompE
Matthew Watkins
CompE EE
David Wilbert CBE
Demissie Wolde-Gabriel
ME AE
Graduating senior engineering students pledged themselves to upholding the highest standards of the profession in this year’s Order of the Engineer ceremony. Each graduate promised to “practice integrity and fair dealing, tolerance and respect; and to uphold devotion to the standards and the dignity of my profession, conscious always that my skill carries with it an obligation to serve humanity by making the best use of Earth’s precious wealth.” The ceremony was sponsored by the Engineering and Applied Sciences Alumni Association and the SEAS Office of Student Services.

UB Wins Clean Snowmobile Challenge

UB defeated 12 other engineering schools from around the country to claim first place in the annual Clean Snowmobile Challenge sponsored by the Society of Automotive Engineers. UB’s team won for best performance, lowest noise, best fuel economy, most practical design and had the highest total points at the competition at Michigan Technological University in Houghton. Team captain Brian Belmont said, “We were confident that we’d built a good machine, and we knew it would be among the top sleds, but we were surprised to be first.” Belmont attributed the team’s overall win to developing a snowmobile that would perform according to the main criteria of the competition—reducing noise and exhaust emissions—while still performing like a stock snowmobile.

UB Environmental Engineering and Science Club celebrates Earth Day by building a sustainable straw house

Caitlin Mahon, BS EnvE ’05, positions a bale as part of the wall of the house.

Jason McGibbon, BS CIE ’05, and Colleen Bronner, BS EnvE ’05, and Kevin O’Brien, an intern with BaleonBale, a Hamburg company that builds straw houses, gather bales of straw.

Successful Undergraduate Research

Thomas Liebner, BS ME ’05, has conducted an undergraduate research experience at the Multidisciplinary Center for Earthquake Engineering Research. Liebner worked with Mai Tong, assistant director of Initiative for Disaster Mitigation Technologies, modeling the deadzone effects on hydraulic dampers, a phenomena which cause dampers to lose some energy dissipation capacity in controlling structural responses under dynamic loading such as earthquakes or even traffic on bridges. Liebner created analytical and numerical models and did lab testing to confirm and further calibrate key parameters in his models. The experience was facilitated by George Lee, Samuel Capen Professor of Engineering and Dean Emeritus. Liebner was awarded a Zimmer Scholarship from the Department of Mechanical Engineering for his work and plans to submit his findings to an earthquake engineering journal.
Over 300 members of the SEAS community gathered to honor the student recipients of the 2005 scholarship awards. Faculty members, scholarship donors, students and their families enjoyed an evening reception that included 164 awards and over $150,000 in scholarship prize money.

Awardees are pictured with Dean Karwan and some of the donors who made the scholarships possible. Awardees’ names are bolded. Photos by Nancy Parisi.
CHOLARSHIP AWARDS

Richard E. Garman Endowment Fund
front: Robert Buchan CSEE; Mark DeBois CSEE; Charles Eiert CSEE; Jesse Gotham CSEE; back: David Keller CSEE; Kelly Miller CSEE; Zachary Miller CSEE; not pictured: Gregory Haack CSEE; Daniel Rohr CSEE

Matthew Grappone Book Awards
Johnathan Walczak CSEE; Rehman Baig IE; not pictured: Seong Ho Hwang IE; Frank Jaworski EE

Matthew Grappone Memorial Scholarship
Jordan Walbesser CSE

Gregory B. Jarvis Scholarships
John Hu CSE; Christine Balonek CBE; Dung Quoc Vo EE; Christopher Selk EE; not pictured: David Frankenfield IE; Daniel Thornton IE; Garun Vagidov CSE

Daniel Kaegebein Bird Electronics/TXRX-SYSTEMS Scholarships
Donald Eastman EE; Huiwen Zhu EE; Jim Whalen; not pictured: Zhao Tang EE

Robert B. Kleinschmidt Memorial Award
Elizabeth Nia EE; not pictured: Shawn Corio CSE; Anh Huynh Le EE

Yong H. Lee Scholarship
Phillip Cormier MAE

Dr. Sophokles E. Logiadis Prizes
Michael Astrella CSEE; Daniel Fenz CSEE

Joseph Markle Dinner Memorial #4 Scholarship
Gregory Chapman CSEE

James W. and Nancy A. McLernon Superior Student Awards
Do Yeh Jeong CBE; Sara Haydaneck CSE; Chin Giaw Lim CBE; not pictured: Lauren A. Gorgol CSEE

James W. and Nancy A. McLernon SAE Engineering Scholarship
Stacy Pustulka CBE; Michael Zaccheo MAE

Praxair Fellowship Award
Adebimpe M. Ogunade CBE

Schomburg Fellowship
Adebimpe M. Ogunade CBE; not pictured: Thomas Agbanyo CBE

R. R. Rumer Award
David Keller CSEE
SCHOLARSHIP AWARDS

Senior Scholar Awards
John W. Danforth Company: Andrew Hamilton CSEE; Paul Buckley, Applied Sciences Group: Erich Devendorf MAE

Senior Scholar Award Sponsored by Motorola
front: Evan Haas CSE; Adam Halstead EE; Evan Halstead EE; Peter Mersich EE; back: Suvesh Bhattarai EE, Gregory Chapman; not pictured: Matthew Watkins CSE

Senior Scholar Award Sponsored by SEAS
front: Michael Pletsch EE; Lye-Theng Lock CBE; Ross Goddard; Colleen Bronner CSEE; back: Brian Peer CBE; Tze-Jan Lin MAE; Robert Miller CSE; not pictured: Ravi Chopra CBE; David Frankenfield IE; Tai-Boon Tan CBE

Irving H. Shames Outstanding Teaching Assistant Award
Shuichi Fujikura CSEE

R. P. Shaw Award
Andrew Hamilton CSEE

Frederick Thomas Award
Jacob Muller IE

Elbridge N. and Stephana R. Townsend Scholarship
front: Thomas Fernekes MAE; Brian Bradford MAE; Michael Andrle MAE; John Amend MAE; back: Timothy Stringham MAE; Robert Smith MAE; Katherine Pieszny MAE; Kirk Lefort MAE; Wei Han MAE; not pictured: David Brugger MAE; Paul Phoa CSE; William Simon MAE; Will Taylor MAE

Gustav and Greta Zimmer Research Scholar Awards
Geoff Wells MAE; Demissie Wolde-Gabriel MAE; Erich Devendorf MAE; Joel Miller MAE; not pictured: Frank Centinello III MAE; Shahikanth Kaluvala MAE; Kafai Lee MAE; Thomas Liebner MAE; Michael Szymanski MAE

Other Awards Presented
Joseph and Adele Augustyn Memorial Book Award
Andrew Camm EE; Nick Considine IE

Adarsh Bhagat Memorial Scholarship
Justin Frascino MAE; Maureen Ward MAE

Beth Cheshire Moran Award
Ravinder Parihar CSE

Lawrence and Amanda Megan Scholarship
David Lenox CSEE

Hiroshi Morihara and Mary McSwain Fellowship Award
Ashwin Gumani MAE

S.P. Prawel Award
Brian Regan CSEE

Allison Simons Scholarship Award
Matthew Davis MAE

Henry Stone Graduate Assistantship Awards
Thomas Agbanyo CBE; Moises Atiles IE

Xerox/SHPE Scholarship Award
Michael Acevedo EE; Moises Atiles IE; Roberto Hungria CSE; Jorge Pavia CSEE; Abraham Tejada EE

If you would like to learn more about becoming involved in the Scholarship Program at the School of Engineering and Applied Sciences, contact Tim Siderakis or Mike Madonia in the SEAS Development Office at 716/645-2133.
Student Paper Competition Winners

Darshan Nagaraju and Pengfei Yi, graduate students in industrial engineering, won the graduate division of the student paper competition at the 2005 Society for Health Systems Conference for their paper, “Improvement of Hospital Discharge Process by Value Stream Mapping.” Nagaraju and Yi have been working with Li Lin, professor of industrial engineering, on a hospital discharge study at Buffalo Mercy Hospital.

Six Sigma Quality Methodology Available

The highly sought-after quality methodology called Six Sigma is now available to students in the Department of Industrial Engineering. Six Sigma methodology aims at almost eliminating defects from processes involved in manufacturing and service organizations. Six Sigma focuses on quantitative descriptions of processes that allow for their continual improvement. “It creates a roadmap that helps companies organize and package analytical techniques in order to solve problems,” explained Harrison Kelly III, PhD IE ’03, adjunct instructor of industrial engineering, director of quality management systems at Curbell, Inc. and a Master Black Belt.

The two-semester UB program is open to seniors or graduate students in the Department of Industrial Engineering. Colin Drury, UB Distinguished Professor and chair of industrial engineering, noted that the launching of the program serves to reinforce the department’s emphasis on quality. “The industrial engineering department is the natural home of quality programs and processes,” said Drury. “By adding Six Sigma certification to the strong foundation we already provide in applied probability, statistics and quality assurance, we are cementing our reputation of teaching both the theory—the statistical tools—and the practice—the hands-on training—that is critical for successful quality-control programs today.”

Recognizing of Teaching Excellence

Eleftheria Antoniou, a graduate teaching assistant in chemical and biological engineering, has been selected to receive the UB Graduate Excellence in Teaching Award. This award recognizes Antoniou’s exemplary work and effectiveness as a teaching assistant. Kuntal Sumanta, a graduate teaching assistant in industrial engineering, was also given an honorable mention at the 2005 ceremony hosted by the Graduate School and the Graduate Student Association.

Dean’s Award: Lerner

Lerner is a member and past chairman of the UB School of Engineering and Applied Sciences Dean’s Council and serves on the advisory board of the Institute of Materials Science of the University of Connecticut. Lerner is also a member of the board of the Industrial Research Institute and is on the industrial advisory board of the American Institute of Chemical Engineers. He holds 10 patents and has published articles in numerous scientific journals.

We are appreciative of Lerner’s role in Praxair’s generosity to our School. In addition to being a leading employer of our graduates, Praxair supports its employees who wish to pursue graduate studies at UB; conducts considerable research with our faculty; contributes financial gifts to sponsor seminars, student activities, fellowships, and laboratory development; and lends employees to bring science, engineering and management expertise to our classrooms.

Alumni Awards: Makarechian

Makarechian was given the SEAS Dean’s Award, its highest honor, in 2003. He honors UB with his time, advice and funding as a member of the SEAS Dean’s Council and its Delta Society.
Faculty and Staff Promotions and Hires

Kerry Collins-Gross has been promoted to the position of Assistant Dean in SEAS. Collins-Gross will continue to work in the Office of Student Services, but will take on new responsibilities and duties aimed at improving the undergraduate educational experience in SEAS.

Teresa Miklitsch has been hired as a new senior academic advisor in the SEAS Undergraduate Student Services Office. Miklitsch is currently a Ph.D. candidate in Higher Education Administration at UB and has considerable educational administrative experience.

The Department of Electrical Engineering welcomes assistant professors Weifung Su and Aleksandar Verevkin. Su holds an EE PhD from the University of Delaware in signal processing and communications and a PhD in math from Nankai University, People’s Republic of China. Verevkin has a PhD in physics from Moscow State Pedagogical University and was most recently at the University of Rochester’s Laboratory for Laser Energetics.

UB Honors Faculty and Staff

George Lee, Samuel P. Capen Professor of Engineering CSEE, is among the first to be honored by UB for Outstanding Contributions to International Education for his distinguished service in the areas of international research, education, and exchange. Lee played a key role in UB’s successful work in China, Malaysia, and the rest of Asia.

The UB Exceptional Scholar Award program honored four SEAS faculty at the UB Scholars, Inventors and Entrepreneurs reception. Vladimir Mitin, chair and professor of electrical engineering, and Chunming Qiao, professor of computer science and engineering, were given awards for Sustained Achievement. Jeffrey Errington, assistant professor of chemical and biological engineering, and Hung Ngo, assistant professor of computer science and engineering, were named Young Investigators.

Deborah Chung, Niagara Mohawk professor of materials in mechanical and aerospace engineering, was honored by the UB Institute for Research and Education on Women and Gender at their 2005 Celebration of Accomplishment for her distinguished work during the 2004-05 academic year.

Barbara Sherman, BA CS ’76 PhD Management ’97, teaching assistant professor of computer science and engineering, was inducted as an honorary member of the UB Golden Key Honor Society.

Dean Millar, assistant dean, corporate relations and director of Engineering Career Institute, has been recognized as being of particular assistance to a student in UB’s Career Services’ Year After Graduation Survey of the Class of 2003.

Faculty Notes

The BBC World Service technology radio show “Go Digital” interviewed Venu Govindaraju, professor of computer science and engineering, about his work with handwriting recognition. Govindaraju spoke about his development of anti-cybercrime methods for websites. The interview can be heard at http://news.bbc.co.uk/1/hi/technology/3368761.stm.

Thekurossi Kesavadas, associate professor of mechanical and aerospace engineering and director of the Virtual Reality Lab, was featured on the G4TechTV show Screen Saver. Kesavadas demonstrated the “virtual clay” system which transfers the pressure on real clay into software-based clay, which can be used to create the rough shapes for cars, buildings and consumer electronics products and later refined with CAD software.

Sabaniyagam Thevanayagam, associate professor of civil, structural and environmental engineering, has been named Director of Education for UB’s Multidisciplinary Center for Earthquake Engineering Research (MCEER).

Faculty Earn National and International Acclaim

Alan Selman, professor of computer science and engineering, has been selected to receive a prestigious Humboldt Research Award. The award is given by the Humboldt Foundation in Germany to internationally recognized scientists and scholars who are invited to spend up to one year in Germany for their research. Selman, a recipient of the SUNY Chancellor’s Award for Excellence in Scholarship and Creative Activities, will conduct research in computational complexity at the University of Wuerzburg.

Paschalis Alexandridis, assistant professor of chemical engineering, has been awarded the 2005 Bodossaki Foundation Academic Prize in Applied Science. The Bodossaki Foundation awards four prizes every two years to scholars of Greek descent under the age of 40. The prize is presented in a ceremony attended by the President of the Hellenic Republic and comes with a monetary award. This is Greece’s highest honor for young academics and scientists.

Michael Constantinou, chair and professor of civil, structural and environmental engineering, and Andrei Reinhorn, professor of CSEE, were honored by the American Society of Civil Engineers with the Charles Pankow Award for Innovation which celebrates collaboration in the design and construction industry. Constantinou and Reinhorn worked with WSP Cantor Seinuk, Enrique Martinez Romero, S.A., and Taylor Devices, Inc. on a project which enables a structure to not only withstand major seismic events without damage, but also to be operational almost immediately following such events. The first application of their innovation has been used in the tallest office tower in Mexico City.

Vladimir Hlavacek, C.C. Furnas Eminent Professor of chemical and biological engineering, was invited and presented a special lecture to the Czechoslovakian Academy of Sciences in Prague entitled “Reactivity, Stored Energy, and Dislocations in Solid Reacting Systems.”
New CSEE Chair

A. Scott Weber will serve as the new department chair of civil, structural, and environmental engineering. Weber’s current research efforts are directed towards biodegradation of chemicals in water and soil. Additionally, he works with hazardous waste management, soil and water bioremediation, and biological process analysis and design.

Weber is currently Director of the UB Center for Integrated Waste Management and Executive Director of the New York State Center for Hazardous Waste Management. He has been recognized for his research with the Silver Medal Award by the Consulting Engineers Council of New York and the Honor Research Award by the National Academy of Environmental Engineers.

SEAS would like to express its appreciation to Michael Constantinou for his six years as CSEE chair. During his leadership, among the department’s many accomplishments was last fall’s inauguration of the George E. Brown Jr. Network for Earthquake Engineering Simulation Facility. Constantinou will continue his teaching and research duties centered on structural and earthquake engineering.

SEAS Faculty Fill Leadership Positions

Michael E. Ryan, professor of chemical and biological engineering, leaves his school position of associate dean for undergraduate studies after 9 1/2 years to become UB’s vice provost and dean of undergraduate education. Among Ryan’s many accomplishments as associate dean is the School’s successful Student Excellence Initiative, established to increase undergraduate retention rates. UB vice provost and executive vice president for academic affairs Satish Tripathi noted, “[Ryan’s] understanding of the entire undergraduate experience, along with his first-hand knowledge of how faculty-guided research and creative activities enhance undergraduate education, make him ideally suited for this position.”

John E. Van Benschoten, professor of civil, structural and environmental engineering, has been appointed associate dean for undergraduate studies. A UB faculty member since 1988, he teaches courses and conducts research in wastewater treatment, physical and chemical treatment processes for water and hazardous waste, remediation of contaminated soils and potable water treatment. Additionally, he has served as director of undergraduate studies in his department and has been involved in a number of undergraduate curricular initiatives at UB.

Chang Authors Textbook

Carl Chang, adjunct professor of industrial engineering, has published a textbook, Engineering Management: Challenges in the New Millennium, covers a wide range of topics affecting the role of engineering managers including financial and marketing management, ethics, globalization, and the application of emerging technologies. Chang’s text gives students a solid business background while providing coverage of the basic engineering management functions so they can effectively lead in business and management activities.

Chang writes, “Engineers with excellent managerial skills and superior business acumen are needed to lead corporate America in the new century. As the economy grows increasingly global, technologies advance at a faster pace, and the marketplace becomes more dynamic. Consequently, countless industrial companies will need technically trained engineers to turn technological innovations into profitability.”

Chang developed his text from the graduate courses he has taught at UB since 1987: EAS 521 and EAS 522, “Principles of Engineering Management I & II.”

Tau Beta Pi Honors Dedication

Awardees, center, surrounded by student officers and Robert Barnes, senior advisor

UB’s New York Nu Chapter of Tau Beta Pi recognized its Professor and TA of the year as voted by its members. The group selected A. Scott Weber, professor of CSEE and director of the Center for Integrated Waste Management, as its Professor of the Year.

Andrew Olewsky, graduate student in MAE, was chosen as the group’s TA of the year. The awardees were honored at the annual spring induction dinner.
Protecting Ancient Treasures with State of the Art Technology

The world-renowned statue Hermes with the Infant Dionysos has been equipped with innovative seismic protective devices designed by faculty in the civil, structural and environmental engineering department that will help the 7-foot-high marble statue of the Greek god withstand powerful earthquakes. The protective devices, called Friction Pendulum bearings, were custom made for the statue based on analysis and tests conducted at UB’s George E. Brown Jr. Network for Earthquake Engineering Simulation (NEES) Facility. “This is sometimes the best strategy for protecting individual artifacts other than seismically isolating an entire museum building, which is a significantly more complex and expensive task,” said Michael Constantinou, chair and professor of CSEE. According to Constantinou and Andrew Whittaker, professor of CSEE, the Friction Pendulum bearings will allow the Hermes statue to withstand the maximum earthquake forces that can occur in the region. “Preservation is of paramount importance, since the statue of Hermes represents one of Greece’s most important artifacts,” said Constantinou. The devices are designed to allow structures, structural components or even an ancient work of art to swing gently from side to side like a pendulum instead of either breaking or toppling over.

TCIE Wins Award

The University Economic Development Association honored the Center for Industrial Effectiveness (TCIE) with an award for Outstanding Project of the Year for the Delphi Lean Consortium. TCIE’s Lean Enterprise training program utilizes experienced training personnel from both staff and faculty members at the University of Buffalo, as well as private practitioners highly skilled in their specific areas of expertise, to eliminate waste from all work processes.

Making Sense of an Emergency

Immediately following an emergency, decision-makers receive a flood of reports demanding response. Researchers at UB’s Center for Multisource Information Fusion are working to improve how responders process that information by combining theoretical research on information fusion and design of a large-scale simulation of a disaster. The world addresses natural disasters such as tsunamis, earthquakes and volcanic eruptions as well as man-made disasters such as chemical accidents or terrorist attacks. The goal is to produce response-system design that is a unified, coherent ‘situation assessment’ to help emergency responders and decision-makers make the best, most timely decisions that they can.”

Scott’s co-investigators on the project include Rajan Batta, professor and chair of industrial engineering, Li Lin, professor of industrial engineering, James Llinas, adjunct professor of industrial engineering, Ann Bisantz, associate professor of industrial engineering, and Thenkurussi Kesavadas, associate professor of mechanical and aerospace engineering.

“Canary on a Chip” Sensor Measures Changes in Cell Volume

A novel technology that can test cells in minutes for responses to any stimulus, including antibiotics, pathogens, toxins, radiation or chemotherapy has been developed by a team of UB researchers. Susan Hua, assistant professor of mechanical and aerospace engineering and physiology and biophysics, says, “The new technique is so sensitive it can detect changes in cell dimensions never seen before in living cells. The necessary power can be supplied even by a watch battery and the sensor is so small it could fit into a pencil eraser.” Hua and fellow researcher Frederick Sachs, professor of physiology and biophysics, call the sensor a “canary on a chip” to highlight its

(continued on pg. 19)

CUBS Developing Software to Scan Arabic Documents

Researchers at the Center for Unified Biometrics (CUBS) are developing optical character-recognition (OCR) software for handwritten and machine-printed Arabic documents. The new software will scan Arabic documents digitally in search of specific information or keywords for intelligence-gathering and other applications, according to Venu Govindaraju, director of CUBS and professor of computer science and engineering. By developing OCR software for Arabic handwriting and machine-print, the UB researchers will increase access to modern and ancient Arabic resources, helping to close the rapidly growing digital divide between the English and non-English speaking worlds.

“Smart” Safety in the Air

Deborah Chung, Niagara Mohawk professor of materials, is developing new methods for detecting damage in airplane parts by using “smart” materials that sense change in carbon composites. Chung’s research allows the airline industry to detect damage through the use of the electrical properties of the composites. Electrical contacts attached to the composites can sense change in electrical resistance caused by broken fiber. The contacts can be permanently embedded in the parts made of composite or manually attached for safety checks. Chung’s technique can detect much finer cracks than the current ultrasound system.
Re-Engineering Health Services

The Center for Excellence in Global Enterprise Management (GEM) has been working with local Catholic Health Systems and health providers to maximize resources. One project revamps scheduling and health providers to maximize working with local Catholic Health Systems Enterprise Management (GEM) has been The Center for Excellence in Global Health Services Rep-Engineering

Virtual Reality Movies Put a New Face on “User-Friendly”

A virtual-reality drama by a multidisciplinary UB research team from the Departments of Computer Science and Engineering and Media Studies is driving the development of increasingly “self-aware” computational agents that are able to improvise responses to the spontaneous actions of human users in order to make movies and other forms of entertainment more interactive and user-friendly. Audience members use gloves and head gear to immerse themselves within the on-screen environment, where their actions and utterances influence the virtual characters’ reactions, based on a constantly expanding “library” of actions and verbal communications. The central virtual character in the drama is CASSIE, a cognitive agent based on the Semantic Network Processing System (SNePS), a knowledge-representation system developed by Stuart Shapiro, professor of computer science and engineering, and William Rapaport, CSE associate professor, and scores of UB graduate students. SNePS bestows the agent with the ability to carry out reasoning tasks, make assumptions and revise its beliefs.

In addition to Shapiro, the research team involves Josephine Anstey, assistant professor of Media Studies; David Pape, assistant professor of Media Studies; CSE graduate students Michael Kandefer and Trupti Devdas Nayak; Anthony Ekeh, a graduate student in computational linguistics; and Orkan Telhan, a graduate student from Media Studies.

CEDAR Celebrates Work With Postal Service

Congratulations go out to the Center of Excellence for Document Analysis and Recognition (CEDAR), directed by Sargur Srihari, Distinguished Professor of computer science and engineering, for the completion of 20 continuous years of postal funded research totaling some $70 million. In this time, CEDAR has made a major contribution to reducing the number of addresses which could not be recognized by machine from 24 billion when the research began to 7 billion today, despite considerably more items per year. Research into developing keying strategies for computer entry of postal addresses that are non-machine readable is on-going.

Computer Science and Engineering Department Concludes Speaker Series

The Department of Computer Science and Engineering hosted the final event in their Distinguished Speaker Series for 2004-05. David Farber, Distinguished Career Professor of Computer Science Public Policy at Carnegie Mellon University, spoke on “The Technical and Societal Implications of Networking: A Personal Perspective.” Farber examined the impact that networking has had on the world and its citizens. Farber has been working in networking for over 45 years at Bell Labs and in academia.

Fund to Benefit Aeronautical and Biomedical Research

A bequest established by a former research engineer at Calspan-General Dynamics Corp. will support research at the University at Buffalo under a new Innovative Research on Sensors, Instrumentation and Devices Program.

Gerald A. Sterbutzel, who died in 1998, began his career in aeronautical research with Curtiss-Wright Corp. in 1945. He joined the then Cornell Aeronautical Laboratory in 1946, becoming branch head of Calspan’s thermal research in 1970. In 1983, he left Calspan to help found Verity Corp., a research firm in Amherst, N.Y.

In his will, Sterbutzel specified that the funds be allocated to support research relevant to aeronautical and biomedical applications.

SEAS Announces Special Publication

“Recognizing a Life of Innovation” marks the presentation of the National Academy of Engineering’s Founders Award to Distinguished Professor of chemical engineering, Eli Ruckenstein. The publication focuses on Ruckenstein’s illustrious career and the achievements of the faculty in the Department of Chemical and Biological Engineering. The publication can be viewed at: http://www.eng.buffalo.edu/pdf/ruckenstein.pdf.

CEDAR Recognized

The Center of Excellence in Information Systems Assurance Research and Education (CEISARE), directed by Shambhu Upadhyaya, associate professor of computer science and engineering, received recertification for mapping the Computer Security curriculum of UB to the Committee on National Security Systems (CNSS) National Standards 4011 and 4013 during the CNSS Annual Conference. This earned CEISARE the designation of a National Center of Excellence for 2005-08 by the National Security Administration and the Department of Homeland Security. The presentation was made by the Assistant Secretary of Defense for National Information Infrastructure.

Eli Ruckenstein.

Professor of chemical engineering

Eli Ruckenstein.

The publication can be viewed at:
DEVELOPMENT NEWS

Dean’s Council Convenes

SEAS Dean’s Council chairman Ken Manning, BS ES ’74, opened the spring meeting and welcomed council members and guests. Dean Mark Karwan reviewed the agenda for the meeting and introduced new associate dean for undergraduate education John Van Benschoten who gave an overview of his office’s responsibilities and re-organization. Dean Karwan went on to report on UB 2020 and the progress being made under the leadership of UB President John Simpson and Provost Satish Tripathi. The Council heard a presentation on nanomaterials, one of the ten strategic strengths of the University identified in UB 2020. SEAS faculty members Alex Cartwright, professor of electrical engineering, Carl Lund, chair and professor of chemical and biological engineering, and Vladimir Mitin, chair and professor of electrical engineering, joined Bruce McCombe, UB Vice Provost for Graduate Education and EE adjunct professor, in outlining SEAS involvement with this University strength. The Council then toured new facilities of the New York State Center for Engineering Design and Industrial Innovation.

During lunch, the Council received two presentations from award-winning student clubs, the Society for Automotive Engineers (SAE) and the UB Robotics Team (UBR). The Clean Snowmobile Team gave a history of SAE at UB and the improvements they have made to their vehicle which led to this year’s championship. UBR discussed their recent win at the RoboCup competition which asked teams to develop robots to play soccer autonomously. They will be one of three US teams going to the International Championship in Japan this summer.

Tim Siderakis, assistant dean and senior development officer, thanked the group for financial support for the Washington Advisory Group initiative and announced that annual program efforts to date have surpassed last year’s totals including a marked increase in the Delta Society membership. He also introduced Adam Cermak from central development who works with SEAS to engage support of research and outlined opportunities for private support of a recently announced new engineering building.

The Council started the afternoon session with graduate teaching assistants and expressed pleasure with the dedication and training of these vital instructors in SEAS. The rest of the afternoon was divided into two sessions on SEAS research and plans for the future. Bruce Holm, Senior Vice Provost and Director of the Center of Excellence, gave an in-depth report on how the Center for Excellence in Bioinformatics is organized, its research agenda, and its relationship with colleague schools like SEAS and outside universities, Dean Karwan presented the Washington Advisory Group report on key observations and recommendations for short-, mid-, and long-term planning for SEAS. The Council finished its first day with an informal meeting with President Simpson before dinner.

On Friday, the council had the opportunity to continue working with the UB 2020 and Washington Advisory Group reports as they met with Provost Tripathi. The session was concluded with President Simpson, Provost Tripathi, the Council and school leaders making recommendations for the future of SEAS. The Council will continue its work at its fall meeting on October 20 and 21.

Honoring Dedication to Education

The Felix Smist Scholarship has been established by James Smist, BS CE ’80, and his wife Mary to honor James’ father, a person who worked hard for his education and constantly encouraged others to seek education.

While working as a model maker at the Wurlitzer Company, Felix Smist became interested in engineering. After 16 years of night school at UB’s Millard Filmore College, he earned his bachelor of science degree in mechanical engineering while holding a full-time job and raising a family. His only tuition assistance came from the GI Bill for a limited time. Smist stayed with the program through over 30 semesters of studying nights and weekends. When James was five years old, he got to see his father graduate and go on to serve his engineering profession well.

Felix Smist’s commitment to higher education has been an enduring example to James and to all who hear his story. This scholarship has been established to make educational goals a reality for individuals who find themselves in situations similar to Mr. Smist’s.
Simulation Software Gift

John Crassidas, associate professor of mechanical and aerospace engineering, has received a major software gift from Analytical Graphics, Inc. (AGI). AGI’s Educational Alliance Program’s gift of its Satellite Tool Kit (STK) software will be used by students to perform simulations as a reinforcement of material taught in undergraduate and graduate courses on guidance, navigation and control. STK has more than 30,000 users worldwide and plays an integral part in many commercial, private, government, and military missions. It is a standard in the industry and will better prepare UB students in these areas.

Unitrust to Support Scholarships and Assistantships

Distinguished alumnus Erich Bloch, BS EE ’52, has named SEAS as the remainder beneficiary to a $1 million unitrust that will support undergraduate fellowships and graduate assistantships through the Erich Bloch Scholarship and Graduate Assistantship Fund. A unitrust is a gift made through a will or other similar instrument which allows UB to plan well into the future. When activated, funds will be used for scholarships for deserving undergraduate students and/or assistantships for merited graduate students. Some of the proceeds also may be used to support special non-recurrent educational activities that prepare students for a career in engineering.

Currently, Bloch is a principal in The Washington Advisory Group LLC, a high-powered consultancy that provides strategic counsel and management consulting to the leaders of companies, universities, governments and nonprofit organizations. Additionally, he is a Distinguished Fellow at the Council on Competitiveness, also of Washington, D.C., a nonprofit organization that advises industry and the federal government on the long-term effectiveness of American economic policy.

Bloch is a long-time benefactor to SEAS where he has given both philanthropy and of his talent. A prior gift that he gave in his granddaughter’s name currently sponsors 10 annual engineering scholarships for minority students. He was the first chair of SEAS Dean’s Council and worked hand in hand with Dean Karwan to recruit distinguished members and establish a meaningful agenda for the Council.

On a recent visit to Boston, MA, Dean Mark Karwan and Tim Siderakis, assistant dean of development, met with UB SEAS alumni who are employed at the Charles Stark Draper Laboratory, Inc. Draper Labs is a pre-eminent research and development laboratory dedicated to serving national interests in applied research, engineering development, education, and technology transfer. Left to right: Ellis King, BS ME ’02; Jim Tylock, BS ME ’84 MS ME ’86; Narender Chhabra MS CIE ’72; Paul Motyka BS CompE EE ’62 MS EE ’64 PhD Systems Eng ’68; Dean Karwan; Tim Siderakis

The SEAS Development information on these pages is the result of efforts by Dean Mark Karwan with the assistance of Tim Siderakis, assistant dean and senior director of development, and Mike Madonia, director of development.

If you would like to inquire about getting involved with the School and/or giving a philanthropic gift, please call Tim or Mike at (716) 645-2133.
**BEAM Award Breakfast**

More than 100 members and supporters of BEAM met for their annual awards breakfast at Emerson Commons, Buffalo Public School of Hospitality. The guest speaker, Brian Carter, dean of UB’s School of Architecture & Urban Planning, spoke about preparing today’s youth to be America’s professionals of tomorrow and complimented BEAM for working toward this goal. Otis Barker, Director of Community Relations for Senator Byron Brown, presented a BEAM Proclamation and Certificates to the following award recipients.

The awards and recipients were as follows:

- **Charles Campbell, Sr. Outstanding Service Award:** Marilyn F. Helenbrook, BEAM
- **BEAM Educational Achievement Award:** David Gromek, Moog, Inc.
- **Special Achievement Award:** Dominic Spano, Moog, Inc.
- **Industry/Organization Award:** United Auto Workers Local 774
- **Technical Advisor Award:** Robert G. Helenbrook, ATSI, Inc. Engineering
- **Faculty Advisor Award:** Patrice Cathey, Buffalo State College, Liberty Partnership Programs
- **Tony Campagna Memorial Award:** Mark Karwan, SEAS Dean

BEAM Officers for 2005 were elected. They are as follows:

- **President:** Arthur J. McKinnon, Jr., General Motors Powertrain
- **Vice President Membership:** Carmen L. Vella, General Motors Powertrain
- **Vice President Programs:** Brenda Haynes, General Motors Powertrain
- **Treasurer:** Robyn Young, O.P.C.S.E.C.U.
- **Secretary:** Kimberly Lewis, Mototola

Standing Committee Chairpersons:

- **Membership:** Tyra Johnson, L. P. Ciminelli Construction Company
- **Program Planning:** Richard Hanavan, Wendel Duchscherer
- **Tracking:** Brenda Haynes & Don Seel, General Motors Powertrain

**Encouraging the Engineers of Tomorrow**

Forty minority students participated in the BEAM (Buffalo-Area Engineering Awareness for Minorities) SEAS Saturday Science and Technology Academy. BEAM, headquartered at SEAS, is a cooperative educational enrichment program that prepares inner city, minority, female and other under-represented students for careers in science, engineering, and technology.

The middle school students competed in the Future Cities Competition (see “Visions of the Future”) and the Solar Sprint contest. Volunteer engineers from ATSI, Inc. Engineering, the UB Chapters of NSBE and SHPE, Kideney Architects, and General Motors Powertrain Tonawanda worked with the students on their projects and gave career advice on their particular field of expertise.

The high school students worked on a fuel cell car and experiments on hydrolysis and solar power. The grant was sponsored by Wayne Anderson, UB professor of electrical engineering. Joseph Seigrist, PE Chief Engineer at ATSI, Inc. gave a presentation on a fuel cell powered home. James Siepierski, PE of General Motors Research Center presented a fuel cell technology demonstration titled “Building a Hydrogen Infrastructure for Fuel Cell Power”. The program culminated with a trip to the New York Power Authority and demonstrations of a hybrid car and electric car.

BEAM will continue its work with middle and high school students throughout the summer. If you would like more information about BEAM programs, contact Marilyn Helenbrook, Executive Director, BEAM; 206 Fronczak Hall, (716) 645-3066.

The eighth annual golf tournament fund-raiser established to support BEAM summer programs will be held on Tuesday, August 2, 2005 at Chestnut Hills Country Club.

Information on the Golf Outing and BEAM programs may be obtained through Marilyn Helenbrook, Executive Director BEAM 206 Fronczak Hall, 645-3066.
Pre-College Activities

Visions of the Future
Buffalo’s ASCE Professional Section hosted middle school students at UB for the Future Cities Competition. The competition is an annual nation-wide event held around Engineer’s Week in about 25 cities. Students designed model cities using the Sim City 3000 software, wrote an essay, made a physical model and gave a presentation about their city.

The UB student American Society of Civil Engineers assisted at the event.

All Shook Up
Third-graders from Sheridan Hill Elementary in Clarence watch the shake table at UB’s Structural Engineering and Earthquake Simulation Lab put their popsicle-stick structure to the test.

Math is Everywhere
Hundreds of middle school students visited UB to test their math skills with “everyday” math problems. The event encouraged students to get involved with math while having fun with other students and earning prizes. The event was sponsored by Erie 1 BOCES and Erie 2 Chautauqua-Cattaraugus BOCES and co-sponsored by Cavan, Dudzinski and Associates, Inc. It is done in cooperation with SEAS and UB’s Gifted Math Program.

Canary (cont. from pg. 14)
versatility as a first-line indicator of activity in any biological component that is enclosed by a membrane. The chip could potentially be used to study the effectiveness of chemotherapy on an individual, detect poisoning before any outward symptoms appear or speed up the testing process of new drugs. Along with Hua and Sachs, the UB research team includes Daniel Ateya, MAE, Phillip Gottlieb, research associate professor in the Center for Molecular Biology and Immunology, and Steven Besh, research assistant professor of physiology and biophysics.

Faculty Awards (cont. from pg. 12)
Venu Govindaraju, professor of computer science and engineering, is one of 15 Indian scientists and engineers in the United States chosen by the Massachusetts Institute of Technology Indian Business Club to receive a Global Indus Technovators Award. The awards recognize distinguished innovators of Indian origin. Govindaraju is being recognized for his work with a patented system for recognizing handwritten words in cursive script.

Rajan Batta, professor of industrial engineering, has been chosen to chair the 2006 Industrial Engineering Research Conference, the main research forum in IE.

Class Notes (cont. from pg. 3)
Richard Westfield, BS IE ’80, has been appointed Chief Information Officer for the National Labor Relations Board. Westfield is the agency’s senior executive in charge of the development, implementation, application, acquisition, utilization and maintenance of IT systems and programs. In announcing the appointment, NLRB Chairman Robert Battista and General Arthur Rosenfeld stated, “Mr. Westfield brings to the NLRB over 20 years of IT experience. We are very pleased that an IT expert of his caliber will be managing an IT program here that is increasingly important to accomplishing the agency’s mission.”
SEAS Calendar

SEAS Opening Day for Freshmen, Sunday, August 28
UB EASAA Football Tailgate, Saturday, September 17, 4:30 p.m. See Alumni section for additional information.
Pillars Society Luncheon, Friday, October 7 See Alumni section for additional information.
UB Bulls Homecoming, Saturday, October 8
UB Orientation Open House, Saturday, October 15
SEAS Dean’s Council, Thursday and Friday, October 20 and 21
Honors Employment Dinner, TBA
UB Tech Fair, TBA
For more information contact SEAS External Affairs at (716) 645-2768 or ub-seas@eng.buffalo.edu

Engineers Week Events Entertain and Challenge

Students and faculty celebrated National Engineers Week with a packed schedule of events that challenged their skills with fun competitions. Organizer James Stanley described the week as a way to get students interested in engineering and give student clubs an opportunity to work together.

Falling from the Sky

Engineers Week got under way with the annual egg drop contest. Students were asked to construct a device that would protect an egg dropped from the upper walkway of the Student Union using paper bags, plastic latex gloves, masking tape, string, straws, wrapping foam and a magazine. Groups were given points for the lightest device, the greatest accuracy in hitting the target three stories below and an unbroken egg.

Tossing Pi

SEAS Dean Mark Karwan got a little messy for a good cause. SEAS raised money for Habitat for Humanity by giving students, faculty and staff the chance to “Pi the Dean” with a plate of whipped cream.

Building with Peanut Butter

The consumable tower event again proved to be popular with students as teams worked to build the highest and lightest tower out of food provided. The winning team created a tower from uncooked spaghetti, marshmallows and peanut butter.

Robots in the Ring

Engineering Clubs went into battle to finish Engineers Week off with grinding metal and electric motors in BON- WARS. Clubs built electric robots to fight it out in the ring in the middle of the Student Union, drawing a large crowd of students from all disciplines.

Dancing the Night Away

Engineering Clubs enjoyed an evening of dinner and dancing with other Student Association Academic clubs. The semiformal event featured a slide show, an awards ceremony and a raffle.