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## 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.

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## 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. A

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**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,

capital Pacific Holdings, a diversified real estate company headquartered in Newport Beach,

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**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-

(continued on pg. 5)

## 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.

# ALUMNI NEWS

## 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.



### SEAS Alumni and students enjoy food and company after a UB basketball 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.



**Evan Haas CSE; Dipika Rajpal BS EE '03, former EASAA scholarship winner, Danelle Schrader MAE; Brian Peer CBE, Michael Dray BS CBE '04, former EASAA scholarship winner**

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.

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](http://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.

## EAA Board of Directors

Walter Bratek

James D. Boyle

Stephen P. Buechi, Treasurer

Michael Dray

Craig M. Forget, P.E.

Stephen J. Golyski, P.E.,  
Past President

John J. Jondle

Anthoni Markut

Michelle Rhodes

Richard Rink

## Student Representative

James Stanley, President  
Engineering Clubs Council

## Founding Faculty Advisor

Howard E. Strauss

## Members Emeritus

Jonathan E. Kolber

## Coordinator Emeritus

William W. Swenson, P.E.

## SEAS Liaison

Robert E. Barnes

An Invitation for the BS IE Class of '84

Mark your calendars for the 2005 Reunion on July 9 and 10, 2005! If you would like to take a roll in the planning and execution of the reunion, contact Mike Weekes at [mweekes@sopark.com](mailto:mweekes@sopark.com).

## Class Notes

**Thomas Billings**, BS IE '90, 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.

## 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.

**Quinxia 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.

**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.

**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 Visteon 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.

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## Job Hunting?

Alums-do you know that you can still receive FREE career advice?

Career Services offer a wide variety of services to engineering and applied sciences alumni, including resumé/cover letter critiques, job search and interviewing tips, access to online job postings, resumé referral, on-campus interviewing, and individual career counseling appointments. Check out our Meet-A-Mentor program, and get connected to UB alums who are working in various fields! Contact Melissa Hubbard, Engineering Career Counselor, at 645-2231 to make an appointment, or visit the Career Services office in 259 Capen Hall to speak with a counselor. For more information, log on to [www.ub-careers.buffalo.edu](http://www.ub-careers.buffalo.edu).

## Alumni Obituary

SEAS offers its sincere sympathy to family, friends, and classmates of Gwen E. Kuss, BS IE '92 MEng IE '97, who died on March 27, 2005.



**Irving H. Shames, Distinguished Teaching Professor Emeritus, with Craig Forget, BS CIE '92 MS CIE '96, chair of EASAA Engineer of the Year Committee**

## 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 principle 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.

## 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](mailto:enginet@eng.buffalo.edu).

## 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](mailto:mhewlett@eng.buffalo.edu), 716/645-2768 x1106.

## 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](mailto:Hedrick@eng.buffalo.edu).

## 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



# Engineers Cheer for The Bulls



SEAS students rally behind the Bulls

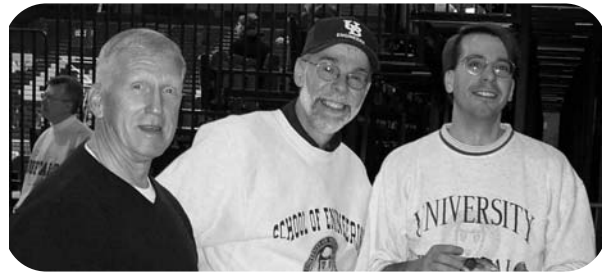
Alumni, students, faculty, and friends joined for the 18th annual SEAS at UB Basketball event. Everyone enjoyed cheering the Bulls on to a win and celebrating afterwards with a pizza party. The UB Engineering and Applied Sciences Alumni Association presented the Engineering Spirit Award to the UB chapter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



Members of the UB American Society of Civil Engineers with the UB EASAA representatives



SEAS students, faculty, and alumni sit together to take in the game



UB EASAA members enjoy the game

EASAA and the UB Alumni Association (UBAA) invite all graduates of 50 or 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 semi-conductor 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.

# STUDENT NEWS

## 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

## 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 Choong CBE  
Ravi Chopra CBE  
Melissa Chow CBE  
Chingsheng Chu EE  
Jonathan Clemons ME  
Robert Clemons ME  
Erich Devendorf ME  
Isidore Dinga Madou CompE  
Christopher Dolen CompE  
Mebougna Laze Drabo AE  
William Ebsary ME  
Justin Frascino ME  
Benjamin Freer EE  
Christopher 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 Mersich EE  
Gahngsoo Moon CompE  
Matthew Morse ME  
Kristen Ondesko ME  
Chang Young Park EE  
Brian Peer CBE  
Michael Pfetsch EE CS  
James Pieszala EE  
Rachel Piskorowski ME  
Rosaleen Rauch CSEE  
Brian Regan CSEE  
Valerie Ringler MAE  
Michael Sellers CBE  
Jawaad Sheriff ME  
Mark Smith ME  
Mylynda Snyder IE  
Shahrooz Soltani  
Bidokhti EnvE  
Tai Boon Tan CBE  
Victoria Tomei CBE  
Gregory Torbenson  
CompE  
Matthew Watkins  
CompE EE  
David Wilbert CBE  
Demissie Wolde-Gabriel  
ME AE



## 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.

## 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.

## 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'Brian, an intern with BaleonBale, a Hamburg company that builds straw houses, gather bales of straw.

## Order of the Engineer



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.





# 20TH ANNUAL SEAS SOCIETY

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.



American Institute of Chemical Engineers Awards

Outstanding Senior: **Melissa Chow** CBE  
Outstanding Junior: **Abhijeet Kohli** CBE



American Society of Civil Engineers Julian Snyder Endowment Fund Scholarship  
John Danzer; **Kelly Finn** CSEE



American Society of Civil Engineers Student of the Year Award

George Cotroneo; **Christopher George** CSEE



Association of Old Crows Scholarships

Gary England; **Evan Halstead** EE; **Adam Halstead** EE; Mike Pilarski; Dan Ehrenhalt; not pictured: **Jennifer Thompson** CSE



Robert P. Apmann Award  
**Colleen Bronner** CSEE



David M. Benenson Memorial Scholarship  
**Anthony Chirico III** MAE; **Suvesh Bhattarai** EE; **Darren Leskiw** MAE; **Robert Miller** CSE; **Benjamin Nieman** MAE



Chuang Family Scholarship  
**Jacob Muller** IE; **Lindsay Mroz** CBE; not pictured: **Ji Tong Chen** CBE; **Patrick Cupka** CSE



Civil, Structural and Environmental Engineering Chair's Graduate and Undergraduate Recognition Awards  
Undergraduate: **Thomas Connell** CSEE  
Graduate: not pictured: **Jeffrey Berman** CSEE; **L. Shawn Matott** CSEE



Engineering Undergraduate Fellowships

front: **Adriana Crippen** MAE; **Robert Colorafi** MAE; **Jamaine Brown** MAE; **Noah Bednowitz** IE; **Kaitlin Bailey** CBE; back: **Bilal Hanif** IE; **Matthew Hamlet** MAE; **Jeremy Gworek** CSEE; **Emmanuel Fernandez** CSE



front: **Jenna Mertowski** EE; **Richard Martyna** EE; **Elizabeth Henry** IE; **Matthew Henchey** IE; back: **Webster Ross III** CSE; **Nandine Roberts** CSEE; **Herick Nelson** EE; **Gregory Nelson** CSEE



front: **Michael Williams** CSEE; **Andrew Widjaja** IE; **Keith Ward** IE; **Analisa Sanchez** CBE; back: **Ahmad Zakari** EE; **Christina Yacoub** CBE; **Jasmine Worthy** MAE; **Demissie Wolde-Gabriel** MAE

not pictured: **Carlos Buitrago** CBE; **Jahmil Campbell** EE; **Andre Colquhoun** CSE; **Everett Comfort** EE; **Holly Czechowski** MAE; **Michael Dinezza** EE; **Ricardo Euyoque** CSEE; **Ryan Evans** MAE; **Moises Feliz** EE; **Sharon Greenfield** MAE; **Michael Hurst** CBE; **David Manchester** MAE; **Darryl McCune II** EE; **David Mullineaux Jr.** CBE; **Michael Patti** MAE; **Ryan Prendergast** EE; **Amy Schroder** MAE



# SCHOLARSHIP AWARDS



## Richard E. Garman Endowment Fund

front: **Robert Buchan** CSEE; **Mark DeBois** CSEE; **Charles Ekiert** CSEE; **Jesse Gotham** CSEE; back: **David Keller** CSEE; **Kelly Miller** CSEE; **Zachary Miller** CSEE; not pictured: **Gregory Haack** CSEE; **Daniel Rohe** 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; **Huifen Zhu** EE; Jim Whalen; not pictured: **Zhao Tang** EE



## Robert B. Kleinschmidt Memorial Award

**Elizabeth Nio** 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** CSE



## 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 Pfetsch** 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 Andrlle** MAE; **John Amend** MAE; back: **Timothy Stringham** MAE; **Robert Smith** MAE; **Katherine Piepszny** 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. Prawl 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.

## Alumni Awards: Manning

(continued from pg. 1)

partner and trial attorney at Phillips, Lytle, LLP, of Buffalo, Manning holds dual membership on both the SEAS Dean's Council and the Law School's Dean Advisory Council. Manning has twice chaired the SEAS Industry University Day, an event that brings together segments of the University, industrial partners, and SEAS to share and understand one another in a collaborative relationship. Upon his urging, the event included elected officials and resulted in special funding for the establishment of the New York State Center for Engineering Design and Industrial Innovation. Recently, he led the Dean's Council's effort to retain and support the Washington Advisory Group, national experts in organization appraisal. This work marks the first time SEAS has engaged the services of an outside group to comment on its strategic planning en route to enhancing its national reputation. Not only does Manning donate his valuable time to UB, but his resources as well, as a generous annual supporter of both SEAS and the law school.

## Alumni Awards: Makarechian

(continued from pg. 1)

CA with operations in California, Arizona, Colorado and Texas. During this fiscal year, CPH is projecting \$500 million in revenues, an 82% increase over the previous year. Last year, CPH was ranked by the Builder 100 as the 78th-largest builder in the nation and by Professional Builder Magazine as the 53rd-largest builder of homes in the United States. This year, CPH was voted "One of the Best Companies to Work For" by *Professional Builders*. CPH's success has been chronicled in *Newsweek Magazine*, *The New Yorker*, *Forbes* and on CNN.

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.

## 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."

## Recognition 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

(continued from pg. 1)

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.

# FACULTY AND STAFF NEWS

## 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 **Aleksandr 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 and past president of the UB Engineering Alumni Association, 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>.

**Thenkurussi 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.

**Sabanayagam 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.

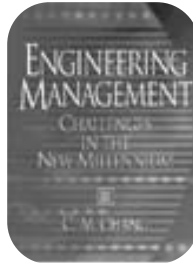
SEAS would like to express its appreciation to **Michael Constantinou** for his six years as CSEE chair. During his leadership, among the department's many accomplishments was last fall's inauguration of the George E. Brown Jr. Network for Earthquake Engineering Simulation Facility. Constantinou will 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 enterprise and the 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.

# RESEARCH NEWS

## 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 **Micheal 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 work 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 guidelines, applicable to all kinds of emergencies, and test them in the simulated-disaster environment. According to **Peter Scott**, associate professor of computer science and engineering, "Our simulation takes these reports and assigns probabilities of error and uncertainty to the information they contain based on known reliability data and then fuses the information into 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.

## CEISARE 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.

## 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 of visits by nurses and therapists of the Catholic Health Systems' McAuley Seton Home Care to reduce the number of visits that need to be rescheduled. **Li Lin**, professor of industrial engineering and director of GEM, says, "We want to better steward our resources, while increasing patient and clinician satisfaction."

## 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 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.

## 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.

## 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 Veritay 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.

# 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 nano-materials, 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.



**Dean Mark Karwan, Felix Smist with daughters Rose and Mary**

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.

### 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





## 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.



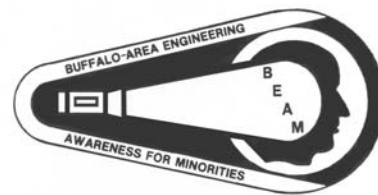
On a recent visit to Boston, MA, Dean Mark Karwan and Tim Siderakis, assistant dean of development, met with UB SEAS alumni who are employed at the Charles Stark Draper Laboratory, Inc. Draper Labs is a pre-eminent research and development laboratory dedicated to serving national interests in applied 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

## 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. The STK Product Suite supports analysis, planning, design, operation, and post-mission analysis for complex and integrated land, sea, air, and space scenarios. 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.

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.F.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 Besch, 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](mailto:ub-seas@eng.buffalo.edu)**

## 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.



## Robots in the Ring

Engineering Clubs went into battle to finish Engineers Week off with grinding metal and electric motors in BOT-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.

## 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.



# 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.

This is a publication of the School of Engineering and Applied Sciences – External Affairs and the Engineering and Applied Sciences Alumni Association, University at Buffalo. Robert E. Barnes, editor; Leslie Graff, associate editor; Deanie Hedrick, assistant editor. Other contributors: the UB Reporter, the UB Office of Publications, and The Spectrum. Anyone wishes further information on the articles contained herein may call External Affairs at (716) 645-2768 x1110, fax (716) 645-2495, or e-mail [ub-seas@eng.buffalo.edu](mailto:ub-seas@eng.buffalo.edu).

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