Over 300 Scholarships to School of Engineering Students

Engineering Honors Top Alumni & Friends

NSF CAREER Awards Presented to Three New Faculty

Connecticut School Children Flex Creative Muscles at Invention Convention
This year, we celebrate the 100th anniversary of engineering instruction at the University of Connecticut. At the turn of the century, a college education was still beyond reach and deemed unnecessary by most American families. Back then, college instruction meant diligent study in either the liberal arts, selected hard sciences or agriculture, and engineering was viewed as anomalous within higher education. As we mark our centennial year at UConn, I find it instructive to look back at our historic underpinnings to gain perspective and wisdom as we embark on our second century.

Dr. Winthrop Hilding, emeritus professor of the Mechanical Engineering department, published an expanded version of a previous book in 1986, called A History of Engineering Education at the University of Connecticut. When I first became dean of engineering three years ago, I read this book to learn the history and evolution of our school. I remember one passage, in particular, describing events in April of 1923, when the Appropriations Committee of the General Assembly visited the College on an inspection tour. Many of the things we take for granted today were inflammatory back then. The Committee report, which stated the Committee’s clear opposition to college-level instruction of women, also said: “Mechanical Engineering is an exotic which is imposed on the college, we are given to understand, as a condition of some of the federal grants. The amount is not large and might be urged that there is no injury done to farmers in teaching a little mechanics and mechanical engineering.”

Clearly, we’ve come a long way since 1923. Today, the School of Engineering is among the most productive units within the University of Connecticut, in terms of quality of students and faculty, research expenditures, success in securing external funding from federal government agencies and industry. The School of Engineering is the most comprehensive and most highly respected engineering program in the State, with 12 undergraduate and 10 graduate degree programs. We have approximately 1,100 full-time undergraduate and 400 graduate students. Over the years, we have produced more than 15,000 productive and prominent UConn Engineering alumni professionals.

This year, we hired five new faculty members, including three women, from leading academic institutions. In addition, we received unprecedented support from corporate friends, including major gifts from UTC, whose gift constituted the largest to any public engineering school in New England, and from GE, SNET and Northeast Utilities. Through these investments, and those of other industrial friends and alumni, we are fortunate to have established 11 Endowed Named professorships in various disciplinary areas within the School of Engineering as well as additional scholarships that will be important to recruiting new top quality students.

In the last four years, we have dramatically increased our freshman enrollments by 80 percent while also improving student quality, including some individuals with SAT scores of 1600. This significant increase results from our strong commitment to outreach and enhancing our scholarship opportunities. As you read this issue of Frontiers, you will notice a strong scholarship theme. During the year, we have aggressively sought scholarship support from our own resources, alumni and corporate friends (see pages 16-18), and state and federal agencies (see pages 5 and 8). As a result, the School awarded more than 300 merit-based scholarships during the 2000-01 academic year.

Gifts from our valued alumni and corporate friends have allowed us to achieve a great deal. Your support, combined with our strong growth initiatives in the School of Engineering, have allowed us to recruit top quality students; attract top new faculty members in exciting areas of technology; upgrade our existing teaching and research facilities; and finalize plans for our new 100,000 square foot Engineering Information Technologies building which will be completed in December 2002.

These achievements are indeed impressive, and I am confident they will continue and that the ripples will expand well into the future. Today, we are in the midst of a technological revolution that is profoundly transforming the landscape of not merely education but our daily lives. The major challenges facing us – to help propel vital research, to cultivate graduates who are poised for demanding industry expectations, and to constantly strive for excellence in every endeavor – can be achieved only with you by our side, part of the UConn engineering team. Together, we can build one of the best public engineering schools in the nation.

Amir Faghri, Dean
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Frontiers
Problem assessment, evaluation of alternate solutions, design challenges, prototype assembly and performance analysis are all stock features of an engineer’s job. They’re also fundamental aspects of the inventor’s profession, as 600 Connecticut school children learned while developing their entries for the 18th annual Connecticut Invention Convention (CIC) at Gampel Pavilion in Storrs on April 7th. The children, ranging from kindergartners through eighth graders, acquitted themselves admirably, proving themselves up to the challenge of donning the inventor’s hat to produce a broad spectrum of inventions, from the whimsical to the profound.

The convention, hosted for the third consecutive year by the School of Engineering, attracted more than 2,500 judges, parents, industry sponsors and young inventors from across the State. Contenders at the CIC previously won local competitions held at 90 participating schools throughout Connecticut in late fall and winter. The competition allowed students to let their imaginations run wild in solving day-to-day problems. Among the inventions displayed were a variety of devices geared to simplify everyday life, including contraptions to assist in pet care and feeding, solve problems with food storage, water house plants, clean house, squirrel-proof birdfeeders, alert home residents to mail delivery, dry wet socks and mittens, sort clothing and empty the rubbish.

UConn Chancellor & Provost, Dr. John Petersen, introduced the keynote speaker, Dr. David Crow, Senior Vice President of Engineering for Pratt & Whitney, who regaled the audience with anecdotal stories of young inventors who changed the world with their ingenuity. Dr. Crow underscored his talk by sharing three “secrets” behind Pratt & Whitney’s successful record of innovation over its 75-year history: (1) treasure your ideas, even if they are small; (2) even if you come up with a good idea, you can always make it better; and (3) don’t be afraid to dream big dreams. The full text of Dr. Crow’s remarks may be accessed on our web site at www.engr.uconn.edu/SoE/news.html.

“The Connecticut Invention Convention is a truly rewarding event for everyone associated with it – and a superb venue for children to gain their first exposure to the engineering disciplines,” said Dr. Amir Faghri, Dean of Engineering. The School of Engineering views the convention as an opportunity to reach out to Connecticut school children and inspire an early interest in engineering and scientific disciplines.

During the judging period, parents and other visitors toured campus and strolled through a series of child-friendly working exhibits staffed by UConn engineering faculty demonstrating diverse engineering applications. In addition, Connecticut middle and high school teachers, administrators and guidance counselors were treated to a special information session, hosted by the School of Engineering, intended to acquaint them with engineering preparation and careers.

Awards were presented in the afternoon following a brief talk by the program’s second speaker, Jose Manuel Otero, Director of Research and Development of Mouse Specifics, Inc., a biotechnology start-up company, on the subject of innovation and invention and his personal experience in biomedical research. The Connecticut Invention Convention is run entirely by volunteers and underwritten by grants and in-kind donations.

Charlie Baumgartner, president of the not-for-profit CIC organization and Sourcing e-Commerce Leader for GE Industrial Systems, said “Once again, we were delighted with the venue, record number of competitors, and smooth operation of the Connecticut Invention Convention. I think all of us who are involved in the Invention Convention have a strong commitment to investing in our young people and in the future of our nation. America’s economic competitiveness is inexorably linked to our manufacturing ingenuity. The earlier we begin to nurture innovative thinking among our young people, the better for the nation as a whole.”

To learn more about the Connecticut Invention Convention, please consult the CIC website at www.engr.uconn.edu/~cicweb.
New Scholarships Awarded

UConn Engineering students performed extremely well in two new state-wide scholarship competitions, netting a large percentage of the scholarships awarded in separate December ceremonies. The two new programs, the Connecticut Innovations Inc. Technology Scholar Program and the CTinfoTech Scholarship Program, target students enrolled in the sciences and technology-oriented disciplines and are geared to help secure a steady flow of skilled technology workers for the future.

Dr. Amir Faghri, Dean of Engineering, commented, "This educational support from the State and industry attests to Connecticut's growing commitment to fostering and sustaining a strong information-based industry in the Nutmeg state. Building a strong info-tech sector will benefit Connecticut's economy, strengthen the job market for residents and help retain our top graduates."

**CII Technology Scholar Program**

During a December 13 press conference at the UConn-Storrs campus, Governor John Rowland and representatives of Connecticut Innovations Inc. (CII) announced 40 recipients of its new Technology Scholar Program. The students were chosen from colleges and universities across Connecticut. This new program combines earned scholarships, internships and leadership training programs to support the science and technology-based workforce needs of the new economy.

Under the program, CII will provide $500,000 annually for scholarships to Connecticut science and technology students. Future scholars will be chosen from among graduating Connecticut high school seniors who intend to study science or technology at a Connecticut college or university.

CII Technology Scholars are eligible to receive up to $12,000 while working toward their undergraduate degrees in an approved science or technology academic program. Those who maintain a 3.0 grade point average will be awarded $500 per semester beginning the fall semester of their freshman year through the spring semester of the sophomore year, and $2,500 per semester from the fall semester of their junior year through the spring semester of their senior year. In addition, recipients also will have access to a broad selection of summer internships that will enhance their education and provide opportunities to gain meaningful work experience in fields of interest to them.

To qualify, students must maintain a minimum of a "B" or 3.0 grade point average and agree to work within the State for two years after graduation.

**CTinfoTech Scholarship Program**

A second scholarship program, dubbed the CTinfoTech Scholarship Program, was formally unveiled at a December 11 press conference at the State Capitol in Hartford. In presenting the scholarship award winners, Connecticut Governor John Rowland outlined his vision for Connecticut as a leader on the technological forefront. The CTinfoTech Scholarship program arose from a bill championed by Deputy House Minority Leader Brian J. Flaherty and passed by the Connecticut legislature in 2000.

During 2000, the Connecticut legislature passed a special bill funding $1.2 million in student loans for students pursuing computer and information-related degrees at Connecticut colleges and universities. The scholarship was awarded based on academic merit.

Of the 237 Connecticut students awarded scholarships, 51 are UConn students and 22 are undergraduates or graduate students in engineering. All of the UConn engineering students earning the scholarship far exceeded the qualification criteria, each earning a grade point average of 3.3 or higher compared with the minimum required GPA of 2.5.

For information about applying for technology scholarships, please contact Marty Wood, Assistant Dean for Undergraduate Education, at marty@engr.uconn.edu or (860) 486-2167.

Ten engineering undergraduates received CII Technology Scholarships, which were awarded based on scholastic achievement:

**Chemical Engineering**

Katherine D. abrowski
Allison Foss
Kristin Gardner
Bryan Hirschorn
Andrew Lim

**Computer Science & Engineering**

Kevin Connelly
William Swofford

**Mechanical Engineering**

Christopher Gatto
Erin Williamson

**General Engineering**

Madeline Larkin

**Computer Science & Engineering**

Imad Antonios (Ph.D.)
Adam Buchbinder
Timothy Bulat
Michael Collins
Kevin Connelly
Matthew Costa
Hardik Dave
Richard DiNicololo, Jr.
Merek Dolata
Eric Dutko
Piotr Hordek
Nicholas Kariak
Vincent Nguyen Thinh (Ph.D.)
Michael Ocampo

**Electrical & Computer Engineering**

Lindsay Amidon
Ramji Harkrishnan
Parmoon Sedghighrad
Steven Summers
William Swofford
Austin Upton

**Mechanical Engineering**

Egon Salimusa

**Management & Engineering for Mfg.**

Kevin Oroske
Faculty Awards & Distinctions

Dr. Mark Aindow, Associate Professor of Metallurgy & Materials Engineering, recently was named a Fellow of the Institute of Physics. Fellowship in the Institute of Physics is awarded for a high level of achievement and contribution to the profession. Dr. Aindow’s youth further distinguishes him as exceptional among Institute of Physics Fellows, who typically are not nominated before the age of 40. He specializes in the use of transmission electron microscopy and other advanced characterization techniques to study engineering materials.

In April, Dr. Douglas Cooper, Professor Chemical Engineering, was presented the 2001 UConn Alumni Association Faculty Teaching Excellence Award. This university-wide award recognizes superiority in undergraduate instruction and honors Dr. Cooper for his commitment to excellence in teaching and student mentoring, and for his development of a simulation software program for industry process control, Control Station. Each year, the Alumni Association recognizes just two faculty members with the teaching excellence award, one each at the undergraduate and graduate level. Since the Alumni Association awards were begun in 1965, only three engineering faculty have received the award.

SoE/EB Workshops Focus on Structural Dynamics & Composites

The School of Engineering held two one-day workshops with Electric Boat (EB) engineers at the UConn Avery Point campus on October 27, 2000 and January 18, 2001. The workshops were originally conceived by Ray Williams, Director of Naval Architecture at EB, as a means of providing EB engineers with an intense refresher course in EB-relevant topics. The workshop logistics were coordinated by Austin Alvarez, Project Manager at EB; Matt McLoughlin, Associate Campus Director at Avery Point; and Laurie Macfarlane, Program Assistant at the Advanced Technology Institute. Two engineering professors, Michael Accorsi of Civil & Environmental Engineering and Kevin Murphy of Mechanical Engineering, team-taught the first workshop on structural dynamics with EB’s Steve Gordon and John Waters. The January workshop, on composite materials, was taught by professors Leon Shaw of Metallurgy & Materials Science and Dr. Accorsi, along with Michael Trezza, George Leon, Jeff Hall, and Piet VanDine from EB.

Electric Boat has a tradition of technical excellence in both of these fields and the workshops served to review fundamental theory and transition this theory to EB applications. According to Dr. Accorsi, the workshops, which attracted approximately 35 EB engineers per session, were a clear success and represent part of a long-term collaboration between EB and the School of Engineering on educational and research ventures.

Engineering Faculty Promotions and Tenure

The University’s Board of Trustees has approved the following promotion and tenure recommendations for Engineering faculty.

Congratulations to all!

Mark Aindow
Associate Professor in Metallurgy & Materials Engineering was granted tenure

Steve Demurjian
Promotion to full Professor, Computer Science & Engineering

Can Erkey
Tenure and promotion to Associate Professor, Chemical Engineering

Kevin Murphy
Tenure and promotion to Associate Professor, Mechanical Engineering

Eugene Santos
Associate Professor in Computer Science & Engineering was granted tenure

Alexander Shvartsman
Tenure and promotion to Associate Professor, Computer Science & Engineering
The School of Engineering feted distinguished alumni and supporters during its annual engineering awards banquet Tuesday, April 24, 2001. The event, held at UConn’s Lewis B. Rome Ballroom, drew more than 500 participants, including top executives from Connecticut industry, university leaders, as well as UConn engineering alumni, undergraduate scholars and faculty.

During the evening, the School presented more than 130 scholarships and awards, totaling approximately $200,000, to undergraduate engineering students in recognition of their academic excellence.

Two Distinguished Engineering Service Award winners were honored for their outstanding contributions in promoting industry-university collaborations and enhancing undergraduate education: Dr. John Cassidy, Senior Vice President for Science & Technology at United Technologies Corporation and Mr. Michael G. Morris, Chairman, President & CEO of Northeast Utilities System.

During his distinguished career, Dr. Cassidy has held key positions with UTC and General Electric. He is Vice President of United Technologies Research Center and previously served as UTC’s Corporate Director of Technology Management. Prior to joining UTC, he held research management positions with General Electric and General Motors. Dr. Cassidy earned his B.S., M.S. and Ph.D. degrees in electrical engineering from Rensselaer Polytechnic Institute. Dr. Cassidy was honored for his leadership role in helping forge strong alliances between the School of Engineering and UTC that will benefit the educational and research experience of engineering students and faculty.

Mr. Morris is Chairman, President and CEO of Northeast Utilities System (N U), New England’s leading supplier of energy products and services. Before joining NU in August 1997, he was President and CEO for Consumers Energy, the principal subsidiary of CMS Energy, and President of CMS Marketing, Services and Trading. Mr. Morris earned his B.S. and M.S. degrees in biology from Eastern Michigan University, and his law degree from the Detroit College of Law. He was recognized for his dedicated support and contributions toward building a strong partnership between NU and the Environmental Engineering Program.

The School also lauded two engineering alumni whose exemplary career achievements have helped shape their professions and fields of endeavor. Alumni awardees included Mr. Samuel D. Ewing, Jr., President and founder of Ewing Capital, Inc., Washington, D.C. and Dr. Arthur Kaufman, Chief Technology Officer for H Power Corporation, Clifton, NJ.

Since he founded Ewing Capital, Mr. Ewing’s investment firm has become one of the largest and most prestigious minority-owned brokerage and research firms in the nation. Mr. Ewing is also a member of the Board of the UConn Foundation and a trustee and board member for a variety of philanthropic, civic and professional organizations within the District of Columbia. He has more than 30 years’ professional experience in investment and financial management, security analysis, investment banking, venture capitalization and computerized investment techniques. Mr. Ewing earned his M.S. in electrical engineering from the University of Connecticut in 1964. He earned an MBA from Harvard University.

On the forefront of fuel cell research and development since he began his career nearly 40 years ago, Dr. Kaufman has contributed significantly toward development of leading-edge fuel cell research and applications. He has been with H Power since 1989 in a variety of top executive positions, including his current role as CTO and previously, Vice President of Technology. Prior to coming to H Power, he worked nearly 30 years in fuel cell R&D and managerial capacities at Engelhard Corporation and UTC’s power systems division (now International Fuel Cells). Dr. Kaufman earned his Ph.D. in chemical engineering at the University of Connecticut in 1973. He earned his B.S. and M.S. degrees, both in chemical engineering from MIT and the University of Florida.
An engineering proposal submitted to the National Science Foundation (NSF) to increase the quality and number of students pursuing B.S. degrees in computer engineering recently garnered a $198,000 grant. The proposal was developed jointly by the two departments offering the interdisciplinary computer engineering major, Computer Science & Engineering and Electrical & Computer Engineering. The NSF grant monies will be disbursed in the form of 40 new two-year scholarships, each in the amount of $3,125, for undergraduate engineering students enrolled in computer engineering.

The NSF grant, awarded under the agency’s Computer Science, Engineering & Mathematics Scholarships (CSEM) program, will target economically disadvantaged students and be administered during the sophomore and junior years. During the first year, 20 scholarships will be awarded to qualified undergraduates; in the second year, the initial 20 awardees will receive a second year of support—provided they remain eligible—and 20 additional qualifying students will receive CSEM scholarships. It is hoped the NSF funding will be renewed after the two-year trial period.

“This scholarship program,” says Dr. Reda Ammar, head of Computer Science & Engineering, “is a very important component of what necessarily must be a multi-pronged approach to ameliorating the nation’s current need for computer engineers in order to aid industry, government, and education in the United States.” Experts project the nation will suffer a severe labor shortage in skilled information technology workers in the next five years; NSF developed the program to help American colleges and universities reverse the current and anticipated deficiencies in skilled computer engineers.

As administered, the scholarship program will place special emphasis on recruiting low-income students from three pools: community technical colleges, engineering students who have not declared a disciplinary major, and students who are transferring from other majors into computer engineering.

On the heels of its successful initial effort in 2000, the School of Engineering will host the second da Vinci Project workshop for Connecticut secondary school educators this summer. The da Vinci Project is a residential short-course offered at no cost to Connecticut math and science teachers of grades 7-12, plus administrators and guidance counselors, introducing educators to engineering fundamentals and career options. The program, to be offered August 5-10, 2001, aims to help teachers integrate core engineering concepts into their math and science curricula so that more Connecticut school-age students are exposed early to engineering science and technology.

During the workshop, UConn engineering faculty introduce participants to core engineering principles, then the group breaks into smaller disciplinary units for more intensive study and hands-on experiments. Educators gain a firmer understanding of engineering and its pervasive nature in our society, and they depart with draft course material and experiments that can be integrated into the middle- or high school curricula. Besides gaining an educational experience that combines serious academics with fun, participants receive free room and board, a stipend, and the opportunity to earn continuing education credits (CEUs) or master’s credits.

Participating educators have the opportunity to select one project concentration area, from an array of interesting experiments including:

- Construction of an electrochemical fuel cell
- Energy transfer
- Wastewater treatment
- Conductive properties of materials
- Design and construction of a sensing circuit
- Construction of a logic circuit

For application materials or details about the August 5-10 workshop; if you would like to appear as a speaker, or if you are interested in mentoring a teacher, please consult our web site at www.engr.uconn.edu/davinci or contact Robert F. Vieth at (860) 486-2590 or at vieth1@engr.uconn.edu.

Freshman enrollments in the School of Engineering are up again for the fall 2001 term, continuing the encouraging growth trend of the last four years. In September, the School will welcome more than 323 freshmen (whose registrations, with deposits, were received by May 2001). The School of Engineering has realized an 80 percent increase in freshman enrollment—the highest at UConn—during the last four years, accompanied by a 40 point increase in average SAT score. In contrast, average engineering freshman enrollment increased nationally 12 percent for the same period. Table 1 below reflects the statistical climb in undergraduate enrollments staged since 1997.

This upward trend is a welcome and dramatic change from the decade spanning 1987-1997, when the number of students receiving bachelor’s degrees in engineering declined by 20 percent nationwide and by 50 percent within Connecticut. To reverse this ominous pattern, since 1997 the School has aggressively recruited new undergraduate students and launched outreach efforts aimed at introducing engineering technology to Connecticut school-age children during the early, formative years when they are first pondering their educational and career interests. The result of these labors is evident in our continually improving freshman enrollment statistics.

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<td>323</td>
<td>303</td>
<td>254</td>
<td>214</td>
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<td>42%</td>
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Table 1. Engineering enrollment statistics as of May 3, 2001. Note that 2001 statistics show only the number of incoming students who have paid their deposits as of May 3.
NSF CAREER Awards Presented to Three New Faculty

Three School of Engineering junior faculty members have been named National Science Foundation (NSF) Early Career Development (CAREER) Award winners. The new recipients are: Wilson Chiu of Mechanical Engineering (see separate article), Patrick Mather of Chemical Engineering and Alex Russell of Computer Science & Engineering. The 2001 CAREER Awards, which confer $375,000 over a five-year period, are presented to junior faculty members whose combination of outstanding research and teaching distinguish them as among the top young academics in the nation. In receiving the distinguished CAREER awards, they join last year’s recipients, Alex Shvartsman (CSE) and Matt Begley (ME) – and three previous award winners: Kevin Murphy (ME), Joseph Helble (ChE) and Barth Smets (CEE).

Assistant Professor Pat Mather won a CAREER Award for his proposed work into flows of ordered – or “liquid crystalline” – polymers. The objective of his research, Dr. Mather explains, is to reveal the requirements for polymer chain structure (stiff, flexible, etc.) that dictate the stability of their orientation in flows. The research will result, for example, in new polymer designs for use as high-strength fibers, films and moldings by the plastics industry to replace metallic alloys where weight-savings is required. Dr. Mather will collaborate with Dr. Chang Dae Han of the University of Akron on the project.

Dr. Mather, who joined UConn’s Department of Chemical Engineering in 1999, is also a member of the graduate Polymer Program in the interdisciplinary Institute of Materials Science. His interest in polymer science was sparked during his undergraduate years while studying engineering science at Penn State University. He stayed on to earn his master’s degree at Penn State, completing his thesis in ultrasonic cure monitoring of thermoset curing. He earned his Ph.D. at the University of California, Santa Barbara in 1994. In addition to the recent NSF CAREER Award, he received an Air Force Palace Knight Fellowship and a National Defense Science and Engineering Graduate Fellowship. He serves on the Editorial Board of Polymer Engineering and Science and on the Board of Directors for the Polymer Analysis Division of Society of Plastics Engineers.

Assistant Professor Alex Russell earned his CAREER Award for his proposed research into efficient cryptography with provable security guarantees. The research, says Dr. Russell, will address current difficulties with the encryption tools companies use to keep e-mail private. Current cryptographic tools are roughly divided into two categories: those that are efficient but not proven to be secure in practice; and those that offer guaranteed security but are more significantly costlier in terms of the time required to encrypt/decrypt. Dr. Russell says that in practice, vendors almost always forsake privacy for efficiency. His research will center on developing cryptographic tools that are simultaneously secure and efficient.

Dr. Russell earned his master’s of science and Ph.D. degrees from the Massachusetts Institute of Technology in 1993 and 1996, respectively. Prior to joining the Computer Science & Engineering department in 1999, he did post-doctoral work at the Royal Institute of Technology, Stockholm and the University of California at Berkeley as well as the University of Texas, Austin. The focus of his research centers on advanced research into computational complexity, cryptography and distributed computing.

The School of Engineering is proud of its accomplished faculty and their success in garnering highly competitive federal funding to propel state-of-the-art research and teaching programs.

Get Involved with the Alumni Society

The UConn Engineering Alumni Society is in the process of reinvigorating its Board of Directors, and planning an array of interesting activities for 2001. Advantages of being a Society member include:

- **Member Discounts.** Reduced cost for attending selected alumni and university-based events.
- **More Programs and Services.** Information about events, additional networking opportunities, and technical seminars presented by alumni and faculty.
- **UConn Alumni Association Member Benefits.** A list that grows every day, including discounts on campus at the UConn Co-op, Jorgensen Auditorium, Student Recreation Facility and the Homer Babbidge Library; and discounts on hotels, amusement parks, moving companies, movie tickets and much more.

School of Engineering Alumni who would like to join the Engineering Society or would like to volunteer for the Engineering Society Board should contact Marni C. Churchill (860) 486-5394 or email her at marnic@engr.uconn.edu.
Astronaut Discusses Fire in Space

Dr. Gregory T. Linteris (pictured top row center), a NASA space shuttle astronaut and expert in the area of combustion, presented an engineering seminar on the subject of “Fire in Space: Experiments on the Space Shuttle” on January 26th. Dr. Linteris was invited to speak, as part of the mechanical engineering seminar series, by ME professor Baki Cetegen. During his presentation, he discussed his research on two shuttle missions aboard Columbia, STS-83 and STS-94.

Dr. Linteris earned his B.S. (chemical engineering), M.S. and Ph.D. (aerospace engineering) degrees from Princeton University; and a second M.S. in mechanical design from Stanford University. He has served as payload specialist astronaut on both shuttle missions, logging 20 days in Earth orbit. During the first mission, devoted largely to combustion science, Dr. Linteris and his fellow astronauts were to conduct experiments involving more than 150 on-board fires; the mission was abbreviated after just four days due to a fuel cell malfunction. Three months later, STS-94 flew with the same crew, completing its mission and payload experiments. The combustion experiments were intended to help improve the design of more efficient clean-burning combustion systems and, more importantly, shed light on fire safety issues in the microgravity environment of spacecraft and the space station.

Dr. Linteris is currently on the research staff at the National Institute of Standards & Technology.

National Engineers Week

The School of Engineering observed National Engineers Week February 19-23 with activities organized by the Engineering Student Leadership Council and sponsored by the American Society of Mechanical Engineers (ASME), United Technologies Corporation and General Electric Corporation. The events allowed undergraduate engineering students to explore the range of engineering careers available to them, and created a forum for interaction between practicing engineers and students, fostering possible future mentoring relationships.

Events kicked off Tuesday evening with a dinner, sponsored by ASME and United Technologies Corporation (UTC), which included presentations and informal meetings between the 100-plus undergraduates, faculty members and UTC representatives. Highlighting the evening was a keynote address by UTC Senior Vice President for Science & Technology, Dr. John Cassidy, who inspired the audience with his theme that engineers are the architects of their careers. In his remarks, Dr. Cassidy emphasized the importance of not only doing one’s job well but enjoying it. “Do not be afraid to take risks,” he exhorted the audience, “You will not leave your footprint if you do not stretch the boundaries of your responsibilities.” Dr. Cassidy went on to advise students against focusing on salary, and encouraged them to continue to learn and to become involved in sharing their knowledge with their larger community.

The following evening, seven interdisciplinary teams of students competed in an “impromptu design” contest sponsored by General Electric. The goal of the competition was to design and build a 6' wide, 8' long bridge, from index cards, capable of sustaining the greatest weight. The contestants were given one hour in which to analyze, design, fabricate and present an innovative bridge structure. Representatives from GE and one UConn engineering faculty member judged and supervised the loading of the bridge to determine the top-place award winners.

The week’s events concluded Thursday, February 22 with a banquet and evening of entertainment enjoyed by nearly 150 students and faculty. Highlights of the evening included a magician and distribution of 40 door prizes that were donated by corporate sponsors, friends of the School of Engineering, alumni and student professional societies.

School of Engineering Facts

The F.L. Castleman Building, which houses the offices of the Engineering Dean and the Department of Civil & Environmental Engineering, was completed in 1939 at a cost of $300,000.
The Civil & Environmental Engineering (CEE) Department invites nominations for two alumni awards: the Distinguished Civil & Environmental Engineering Alumni Award and the newly established Distinguished Civil & Environmental Engineering Junior Alumni Award.

Both awards will be presented during the CSCE/ASCE meeting on September 18, 2001. To qualify for the Junior Alumni Award, candidates must have earned a bachelor’s degree within the previous decade or a graduate degree within the previous five years.

We welcome your recommendations, including self-nominations, for both the Distinguished CEE Alumni Award and Junior Alumni Award. Please include a brief profile of the nominee’s career achievements or contributions in one or more of the following areas:

- Management and leadership roles in the private sector, government, etc.
- The practice of engineering, which includes innovative design methods or new technological developments
- Engineering education
- Research in the field of engineering or application of engineering methods or tools to research in other fields
- Service to the engineering profession

A committee of alumni and faculty will select the award recipients. Nominations should be submitted by July 13, 2001 to:

Jeffrey Paniati, Chair
CEE Alumni Awards Committee
Department of Civil & Environmental Engineering
University of Connecticut
261 Glenbrook Road, Unit 2037
Storrs, CT 06269-2037
Phone: (860) 486-4018
Fax: (860) 486-2298
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People with paralyzing phobias such as a fear of flying, or snakes, will soon have a new treatment option thanks to specialized research being conducted by UConn researchers in partnership with a Connecticut virtual reality company. Eugene Santos, associate professor of Computer Science & Engineering, collaborating with Dr. Irving Kirsch of the UConn Department of Psychology and Argus VR International, won a 2000 Yankee Ingenuity Technology Competition award of $150,000 in November. The program, sponsored by Connecticut Innovations Inc., seeks to stimulate broader industry/university collaboration and economic benefits to State residents.

The joint project is intended to demonstrate the effectiveness of virtual reality as a tool in treating snake phobias and other anxiety disorders. Central to the research is the concept that controlled encounters with the fear-inducing object or experience, will allow sufferers to gradually become desensitized to the experience, thereby helping them shed the panic reaction.

Dr. Santos was principal investigator on the proposal, which also included UConn psychology professor Dr. Kirsch. Dr. Kirsch will scientifically validate the team’s virtual reality techniques for treating phobias. Farmington, CT-based Argus VR International, headed by president Tim Gifford, will develop key elements necessary for success in treatment and commercialization. The company produces virtual reality products and services as well as web design services.

Commenting on the award, Dr. Santos says “The Yankee Ingenuity Award is an excellent way to foster technology transfer from our UConn academic research laboratories to the real-world by directly interacting and impacting the Connecticut economy. I and my counterpart at Argus VR, Tim Gifford, see this as an opportunity to develop new market niches and industries much more quickly than the normal (or sometimes nonexistent) movement of academic research technology to the real-world.”

Researchers have found that people need not be exposed to the real fear-producing object, or even a precise virtual reality facsimile, for the treatment to be effective. As long as the treatment induces a sufficient fear response, it can be a useful therapeutic tool. Thus, Dr. Santos and his collaborators will develop custom-designed VR programs to help individuals overcome their specific phobias. During an initial phase, the researchers will conduct clinical trials on a prototype VR system to determine its strengths and weaknesses; in the second phase, the team will develop a final VR system and conduct extensive trials in preparation for field use. A new Living VR laboratory was inaugurated in November 2000 at UConn and will serve as the main site for the clinical trials. Full-scale therapy sessions will be conducted by Dr. Kirsch and his students.

Santos Research Aids in Phobia Treatment

Call for Nominations — Distinguished CEE Alumni Awards
controls and automation. Kaputa Systems, LLC of South Glastonbury, CT.

Peter Leombruni (B.S. Civil & Environmental Engineering '77) is Manager of CE Engineering Technology for Westinghouse Electric Company in Windsor, CT.

Andre F. Lesperance (M.S., Mechanical Engineering '66) is the Director of Business Development at Clean Air Action Corporation in Ridgefield, CT.

Diana (Sachetti) Mahoney (B.S. Electrical Engineering '88) has been promoted to Manager of Transmission & Distribution Asset Strategy at Northeast Utilities, Berlin, CT.

Clifford R. Merz (B.S. Mechanical Engineering '86) is the Engineering Technical Director/Program Manager for the Coastal Ocean Monitoring and Prediction Systems (COMPS) Program at the University of South Florida's College of Marine Science.

Lee W. Morris (B.S. Chemical Engineering '79) is Catalyst, Chemicals and Additives Supply Manager for Valero Energy Corporation in San Antonio, TX. He earned his MBA at Rutgers in 1986.

Mohamad R. Neifforoshan (Ph.D. Computer Science '93) was appointed a Professor of Computer Science and Information Systems at Stockton State College, Pomona, NJ. He is the first faculty member ever hired at the rank of full professor at the College.

Michael R. Pepin (B.S. Electrical Engineering '75) retired, at the grade of Colonel, from the U.S. Air Force after more than 30 years of service. He now works as a Senior Manager and Simulation Engineer in the area of aircraft for ITC, Dayton, OH.

Joseph Remson (B.S. Electrical Engineering '88 and M.B.A. '91) is Chief Electrical Engineer in the engineering group at Fletcher Thompson, an architecture, engineering and interior design firm in Bridgeport, CT.

Shawn W. Szturma (B.S. Computer Science/Electrical Engineering '92) is a Sales Engineer for webMethods, Inc.

Paul Stuart (B.S. Chemical Engineering '91) recently earned his M.B.A. from Rensselaer Polytechnic Institute and is employed by Pfizer, Inc. of Groton, CT.

Bhargav P. Upender (B.S. Electrical Engineering '90) is Director of Broadband and Professional Services at 24/7 Media, Bethesda, MD. He is responsible for development of subscriber management and billing system products for the interactive television industry.

Laurence Welch (Ph.D. Biological Engineering '98) is Senior Scientist at Technology Service Corporation in Silver Spring, Maryland. He was elected Senior Member of the Institute of Electrical & Electronic Engineers.
Panama Hydrology Studied

This summer, a team of researchers armed with state-of-the-art monitoring equipment will trek through the dense, verdant forests of Panama to initiate a three-year study aimed at developing superior runoff prediction methods. Among the researchers participating in the study are UConn Civil & Environmental Engineering associate professor Fred Ogden and his research associate Dr. Arik Heilig. Runoff prediction is important because too much runoff leads to flooding and its associated dangers, while too little runoff can dramatically impact surface water supplies. Both of these represent significant challenges to the operation of the Panama Canal. Too much water in the canal can overflow its locks, while too little water reduces the number and draft of ships (distance from the surface of the water to the keel) necessary to allow passage.

The goal of the study is to develop a mathematical model that can accurately predict water runoff in the tropics. The U.S. Army Research Office (ARO) Environmental Sciences Division, and U.S. Army Corps of Engineers, Engineer Research and Development Center (ERDC) are funding the research. Dr. Ogden's proposal involves collection of large watershed data from ground-, air- and space-borne sensors, with the objective of developing a widely applicable hydrologic model for use in tropical watersheds. Collaborating with Drs. Ogden and Heilig are Dr. Ellen Wohl, a fluvial geomorphologist from Colorado State University in Fort Collins, CO, and Dr. Jan Hendrix, a soil physicist from New Mexico Technological University in Las Cruces, N.M. 

While runoff affects the local ecosystem, local land-surface characteristics and climate affect runoff production. Hydrologic engineers and scientists, says Dr. Ogden, are concerned with accurate runoff predictions over a wide range of space and time scales. In particular, the scientists are concerned with the possible effect of human-induced climatological changes on accurate runoff forecasting. "The hand-over of the Panama Canal to the people of Panama has opened up large tracts in the former U.S. Panama Canal Zone for development," says Dr. Ogden. "There is concern that this development be done in an environmentally-sustainable fashion to preserve the operating capacity of the canal. Our research will assist the Panamanians through the development of advanced tools for predicting the hydrologic impact of development in the Panama Canal watershed."

Panama’s relatively close proximity to Connecticut, and its seasonal tropics, make it attractive for the study. In addition, substantial rainfall and runoff data already exist on the area’s hydrological characteristics. Dr. Ogden’s team will use data collected by the agency that now operates the Panama Canal, the Autoridad del Canal de Panama (ACP), and former U.S. Panama Canal Commission (PCC) which operated rain gauges in the area and established a significant number of stream flow gauging stations within the watershed that supplies water for the canal. The team will begin their research with the Upper Rio Chagres Watershed, a national park comprising virgin tropical forest (jungle) that provides the majority of the water for canal operations. The Panama Canal’s overseeing authority, ACP – which is bound by law to develop and expand the canal in an environmentally sustainable fashion - hopes to benefit from Dr. Ogden’s research on improved hydrologic modeling techniques.

After gaining a better understanding of the dominant hydrologic processes in the seasonal tropics, the team plans to develop appropriate mathematical hydrologic process models in the Rio Chagres watershed. The new process models will then be incorporated into the U.S. Army Corps of Engineers' process-based, distributed-parameter, hydrologic model CASC2D. The final step, says Dr. Ogden, is to test, evaluate, and refine the new model formulation, and determine its parameter sensitivity and efficiency for making hydrologic predictions in the seasonal tropics.

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for the record...did you know?

• 2001 marks the 100th anniversary of engineering instruction at the University of Connecticut.

• Eight engineering junior faculty members have been awarded the prestigious National Science Foundation CAREER Award.

• The School of Engineering has increased freshman enrollment by 80% in three years while average SAT scores of incoming students have improved, including several students with SAT scores of 1600.

• During academic year 1999-2000, UConn engineering faculty authored 202 archival technical journal articles and 354 conference papers.

• Among our faculty are 38 Fellows of prestigious professional societies and 32 chief or associate editors of major technical journals.
Demonstrating true enterprising spirit and commitment to their engineering careers, six students in Civil & Environmental Engineering organized and hosted a first-ever Engineering Career Fair held on the UConn campus February 13th. Nearly 40 companies from around the region participated in the Career Fair, including an array of engineering consulting, government and manufacturing companies. While most of the companies were recruiting primarily civil and environmental engineers, many were interested in interviewing mechanical, electrical, chemical and computer science engineers as well.

The event was planned and organized by members of the UConn student chapter of the American Society of Civil Engineers (ASCE), Jennifer Fogg, Brian Chamberlin, Patricia Eldridge, Randy Pareja, Emily Ryzak, Paul Anderson, James Irwin, Elizabeth Edenburn and Lyudmila Fuks. When they began planning, said Ms. Fogg, student chapter president, the students had no idea how to stage such an event, had no financial reserves to speak of, and even lacked a venue hall. The student planners finally succeeded in rounding up capital from the UConn Student Government and their own modest chapter reserves. They started by recruiting companies for the exhibit area, sending letters of invitation to potential exhibitors in November.

Ms. Fogg said that as the number of companies expressing interest grew, she and her cohorts settled upon the Bishop Center as the staging area. In the end, with 40 exhibitors committed, space limitations forced the students to turn away some companies that sought late-entry to the hall.

Many of the participating companies sent UConn graduates to staff their exhibits, turning the fair into a special homecoming for many of the corporate attendees. Among the larger employers participating were Amtrak, Electric Boat, the U.S. Navy and the Federal Highway Administration. Nearly 100 students visited the fair, including undergraduates from the University of Rhode Island, the University of Hartford and Worcester Polytechnic Institute. Each student visitor to the fair received a printed booklet of exhibitor profiles and a floorplan of the two-room exhibit area. According to Ms. Fogg, informal feedback from the employers and visiting students made it clear the Engineering Career Fair was a resounding success that should become a regular feature in coming years.

School of Engineering Dean, Amir Faghri, expressed similar enthusiasm and support for the Career Fair, saying “I am proud of these students for taking the initiative to not only plan but successfully execute the Career Fair. In fact, the event was so effective, we are considering expanding it in coming years to include recruiters hiring the full range of engineering disciplines.”
Top Awards to ME Professor

Dr. Wilson K. S. Chiu, Assistant Professor of Mechanical Engineering, recently was awarded two highly prestigious honors, the National Science Foundation Faculty Early Career Development (CAREER) Award and the Office of Naval Research (ONR) Young Investigator Program Award. These awards recognize exceptional young scientists and engineers who are most likely to become the academic leaders of the 21st Century. Both awards will fund Dr. Chiu’s research on optical fiber technology, which involves data transmission by light through hair-thin strands of glass fiber. Optical fiber technology was first developed for telecommunications in the 1960's. Optical fibers offer many advantages over conventional copper media used in telecommunications, including immunity to electromagnetic interference, dramatically higher data transmission rate, lower signal loss, and smaller cable size needed to carry the same amount of data. Scientists envision a wide spectrum of future applications that include chemical, biological, environmental and industrial sensing; ultra-high speed data transmission; aerospace and aeronautics; and high performance computing.

Dr. Chiu’s five-year CAREER award will support his research into enhanced coatings for optical fibers that will be used primarily in telecommunications and sensing. With an estimated global market growth to over $1 trillion within the next five years, the demand for superior optical fibers is significant. However, a major obstacle in this technology is optical fiber reliability. "With a transmission bandwidth thousands of times greater than copper, optical fibers can carry significantly more data. But harsh environments have considerably reduced the life expectancy of current optical fibers," says Dr. Chiu.

The polymer coatings traditionally applied to optical fibers are effective only over a limited range of temperature, pressure and chemical tolerances. Extreme temperatures of 300°C or higher - not uncommon for sensing of industrial processes, for example - can quickly erode an optical fiber. Thus, Dr. Chiu and his research group will seek new coatings capable of protecting optical fibers under extreme temperature, pressure and chemical exposure. Lucent Technologies and Sandia National Laboratories will partner with Dr. Chiu on this CAREER project, which will involve undergraduate and graduate students actively in carrying out the research.

The three-year ONR award will support related research into the development of optical fibers used in underwater acoustic arrays. The U.S. Navy is keenly interested in optical fiber sensing because of its tremendous acoustic sensitivity gain over conventional piezoelectric sensors. Currently, however, optical fibers could not tolerate the high stresses experienced during array deployment, and have a short sensory life in the extreme marine environment. The challenge, then, will be for Dr. Chiu to develop high strength optical fibers that will survive under such harsh conditions. The Naval Undersea Warfare Center will be working with Dr. Chiu on this ONR project.

While the Navy is interested in using optical fibers for underwater sensing, when improved, the same technology can be applied in detecting geothermal, geological and weather activity; medical sensing; aerospace applications; and failure detection in industrial machinery, bridges and other structures.

Dr. Chiu earned his M.S. and Ph.D. degrees from Rutgers University in 1997 and 1999, respectively. With a research program virtually assured to expand the utility and applications of fiber optics, Dr. Chiu is fulfilling his academic philosophy to “make a difference by providing students the best opportunity to reach their full potential, educate our next generation technology workforce, and improve our society.”
School of Engineering Awards More than 300 Scholarships Yearly

The School of Engineering is privileged to award more than 300 merit scholarships to current and entering undergraduate engineering students, thanks to the generous support of alumni and industrial friends, and state initiatives. The scholarships range in size from $1,000 to $6,000, with the average award totaling $3,000, and are in addition to University scholarships. The 2001 alumni and corporate engineering scholarships were presented to 130 current undergraduates during the School of Engineering annual awards banquet the evening of April 24, 2001.

Importantly, the School of Engineering also awards approximately 100 scholarships each year, averaging $2,500 in size, to incoming freshman engineering students. Please join us in recognizing the outstanding engineering students, listed on these pages, who were honored during our 2001 awards banquet. We welcome additional contributions from alumni and friends who would like to help us sustain our merit scholarship program. For information, please contact Marni Churchill at (860) 486-5394 or email her at marnic@engr.uconn.edu.

ALTSCHULER FAMILY SCHOLARSHIP
Carissa Bombassei (CSE Sophomore)
Craig J. Brideau (EE Junior)

AMERICAN SCREW COMPANY FOUNDATION SCHOLARSHIP
Kevin O'rioske (ME Senior)
Michael White (ME Senior)

ASME HARTFORD SECTION SCHOLARSHIP
Egon Salimusa (ME Junior)
Lisa Anderson (ME Senior)

ACCENTURE SCHOLARSHIP
Allison Foss (CHEG Sophomore)
Megan Hurley (CHEG Junior)

BAYER EUROTECH SCHOLARSHIP
Marek Dolata (CSE Sophomore)

BORGHESI FAMILY SCHOLARSHIP
Justin P. Vinci (ME Sophomore)

ARTHUR B. BRONWELL ENGINEERING SCHOLARSHIP
David Crouse (EE Sophomore)
William F. Slattery (EE Sophomore)

RICHARD D. CAVANAUGH SCHOLARSHIP
Richard Osborn III (CE Sophomore)

CHEMICAL ENGINEERING UNIROYAL FRESHMAN SCHOLARSHIP
Mark Grocki (CHEG Freshman)
Alexander Shum (CHEG Sophomore)

CHARLES H. COOGAN, J.R. MEMORIAL SCHOLARSHIP
John A. Duge (ME Junior)
David Giblin (ME Junior)

CONNECTICUT SOCIETY OF CIVIL ENGINEERING SCHOLARSHIP
Elizabeth Edenburg (CE Junior)

HUGH L. & JUDITH R. COX SCHOLARSHIP
Lara M. Rafi (CHEG / CHEM Sophomore)
Heather Campana (CHEG Senior)

ANTHONY F. DEMSEY SCHOLARSHIP
Andrew L. Ursitti (EE Sophomore)

J OHN DeWOLF SCHOLARSHIP
Candice Lamer (CE Sophomore)

DOW CHEMICAL SCHOLARSHIP
Kenneth Burke (CHEG Senior)

ETA KAPPA NU KLEINMAN SCHOLARSHIP
Ricardo M. Silva (EE Senior)

ENGINEERING ALUMNI SOCIETY SCHOLARSHIP
Ralph Cason (ME Junior)

ENGINEERING ENDOWED SCHOLARSHIP
Timothy Bult (CSE/MATH Junior)
Joseph Vargas (EE Junior)

ENGINEERING OUTSTANDING SENIOR AWARDS
Jeffrey M. et al. (EM)
Kevin M. uhlanier (CE)
Michael B. Newman (CHEG)
David Pham (EE)
Justin A. Polchlopec (CHEG)
Jessica Quagliaroli (ME)
Visal Som (CHMT)

FRESHMAN ENGINEERING AWARD WATERBURY CAMPUS
Adita Pal (CSE Freshman)

ENSIGN-BICKFORD FOUNDATION SCHOLARSHIP
Jeffrey A. Tacy (M MAT Sophomore)

HAROLD P. FARRINGTON ENGINEERING SCHOLARSHIP
Nolan T. Weeler (CHEG Sophomore)
Erie E. Williamson (UNEg Sophomore)

FUSS & O'NEILL SCHOLARSHIP
Leslie C. Burton (CE Junior)

M. A. GEIB MEMORIA AWARD
Jason Sobota (CHEG Junior)
AL GEIB CIVIL ENGINEERING SENIOR DESIGN AWARD SCHOLARSHIP
Correne Arnold
Lawrence K. Auer
Sarah Cwikla
Kyle L. Smith
Jana H. Taylor

GENERAL ELECTRIC KLEIN-STEINMETZ SCHOLARSHIP
Lindsey H. Amidon (EE Junior)
Maribel R. Flores (EE Junior)
Clayton J. Hicks (EE Junior)

ARNOLD GRIFFIN SCHOLARSHIP IN ENGINEERING
David B. Borgeson (CSE Sophomore)

MARY & SALVATORE GRILLO MEMORIAL SCHOLARSHIP
Alexander W. Pestak (EE Senior)

GROSSI FAMILY SCHOLARSHIP
Ryan M. Martin (ME Sophomore)

RASHID HAMID SCHOLARSHIP
Steven J. Watson (CSE Sophomore)

EDWARD J. HUTCHINS-CHARLES E. WILCOX SCHOLARSHIP
Jedidiah Kiernan (CE Sophomore)

IBM SCHOLARSHIP
Jesus Jason Mangual (CSE Junior)
Willie Douglas (CSE Senior)

E. RUSSELL JOHNSTON, SR. MEMORIAL AWARD
Patrick R. Raboin (CE Junior)

W. DONALD JOHNSTON MEMORIAL AWARD
Dean E. Halter (ME Junior)
Derek E. Spradlin (ME Junior)

MARIO & MARIA LATINA SCHOLARSHIP
Kelly Bergkessel (EE/CSE Sophomore)
Alan Wong (CSE Sophomore)

LENARD ENGINEERING INCORPORATED SCHOLARSHIP
Erzsebet Poci (ENVE Junior)

CARL A. & EDNA S. LINDBLAD SCHOLARSHIP
Matthew T. Delude (CH EG Sophomore)
Michael Ocampo (CSE Junior)

JOSEPH F. & ELISABETH S. LOERSCH SCHOLARSHIP
Christopher D. Gatto (MMAT Sophomore)

PASQUALE & MARIA LONGOBARDI SCHOLARSHIP
Matthew L. Favreau (CSE Sophomore)

HARRY & BEATRICE MANSLEY-PETER & ANASTASIA HARDY SCHOLARSHIP
Matthew Izbicki (CSE Junior)

STANLEY MARNICKI SCHOLARSHIP
Roy M. Leggie (CE Senior)

ROBERT AND BEATRICE MASTRACCHIO ENDOWED FELLOWSHIP FUND
Sai Liu (CSE Junior)
David Nielsen (Graduate Student)

MIRSKY SCHOLARSHIP
Alison Schoolcraft (CE Sophomore)

OLIN CORPORATION CHARITABLE TRUST SCHOLARSHIP
Stephanie S. Dufey (CH EG Sophomore 2000 Awardee)
Heather A. Campana (CHMT Junior 2000 Awardee)
Jessica Carignan (CH EG Junior)
Ryan Gonsalves (CH EG Junior)

ROLAND & CAROL PAMEL ENDOWED SCHOLARSHIP
Saira Kazmi (CSE Senior)

PITNEY BOWES SCHOLARSHIP
Stephanie Iacadoro (UNE G Sophomore)
Nicole D. Zabetakis (ME Junior)

PITNEY BOWES ENGINEERING DIVERSITY PROGRAM SCHOLARSHIP
Sarah Aiwan (CMEPE Junior)
Arnaz Rustomji (CSE Junior)

PLANT ENGINEERS' ASSOCIATION OF CENTRAL CONNECTICUT SCHOLARSHIP
Joseph Ferrucci, Jr. (CSE Sophomore)

PRATT & WHITNEY ENGINEERING DIVERSITY PROGRAM SCHOLARS
Daniel Abarao (ME Freshman)
Herna Coe (ME Freshman)
Carolyn Holloway (EE Freshman)
Raynard Scarlett (CH EG Freshman)
Alexander Villalobos (ME Freshman)
Grace Chen (UNE G Sophomore)
Kimberly Ozkan (CH EG Sophomore)
Jessica Zimberlin (UNE G Sophomore)
Amira Elmaghrabi (CSE Junior)
Ryan Gonsalves (CH EG Junior)
Eze Irgbu (CSE Junior)
Parmoon Seddighrad (EE Junior)
Jessica Quagliaroli (ME Senior)
WALTER M. ROSE SCHOLARSHIP
Michael S. Gulick (CSE Freshman)
John T. Miller (CHEG Junior)
Joshua Reiner (EE/MIT Junior)

EDGAR L. RUSSELL SCHOLARSHIP
Eric J. Rogers (ME Sophomore)
Hardik Davé (CSE Junior)

THELMA P. & RAYMOND J. RULIS ENDOWED SCHOLARSHIP
Quinn Fatherley (ME Junior)

JOHN S. RYDZ EUROTech SCHOLARSHIP
Brian Harris (EE Senior)

VICTOR E. SCOTTRON SCHOLARSHIP
Rachelle Lea Clark (CE Senior)
William R. Deitelsen (CE Senior)

SIKORSKY AIRCRAFT EUROTech SCHOLARSHIP
Adam Nogiec (ME Sophomore)

SIKORSKY DIVERSITY SCHOLARSHIP
Arnaz Rustomji (CSE Junior)
Tara Lefever (MEM Senior)
Rebecca Wengler (COMPE Senior)

IGOR SIKORSKY SCHOLARSHIP
Enrique Aleman (EE Sophomore)

SNET SCHOLARSHIP
Jeffrey S. Gussenburg (CHEG Sophomore)
Zachary I. Stone (UNG Sophomore)

JACK E. STEPHENS SCHOLARSHIP
Eric J. Mak (CE Junior)

DAWN-MARIE SULLIVAN SCHOLARSHIP
Nicholas Santamauro (CSE Sophomore)
Erik A. Bettini (ME Junior)

ROBERT W. STRICKLAND SCHOLARSHIP
Matthew Costa (CSCl Junior)
Richard J. Norris (CE Junior)

TRAVELERS INSURANCE/ CITIGROUP INSURANCE SCHOLARSHIP
Alexis Katamis (EE Senior)
Christopher Mow (CSCI Senior)

UNILEVER HOME & PERSONAL CARE USA SCHOLARSHIP
Michael Andrade (CHEG Sophomore)
Christopher Eldridge (CHEG Sophomore)
Grant H. etson (CHEG Sophomore)
Brian Chakulski (CHEG Junior)
Kristin Gardiner (CHEG Junior)

UNITED TECHNOLOGIES EUROTECH SCHOLARSHIP
Bryan Artiaco (EE Sophomore)

UNITED TECHNOLOGIES CORPORATION ACADEMIC MERIT SCHOLARSHIP
Peter M. Bohnenkamp (ME Sophomore)
Christine M. Goetter (CHEG Sophomore)
Christopher J. Jensen (ME Sophomore)
Sohrob Kazerounian (CSE Sophomore)
Steven J. Kochis (CSE Sophomore)
Carolyn A. M. issner (BM Sophomore)
Christopher O’Brien (CE Sophomore)
Edward N. Perry (UNG Sophomore)
Sujit Singh (CSCI Sophomore)
Brian V. Vilag (CSE Sophomore)

2001 NUTMEG SCHOLARS
Stephanie John Ambrogio
Daniel Venn Van Fleet
Alison Carol Gallagher-Rogers

ACADEMIC MERIT SCHOLARS
Maria T. Abbott
Joseph Augulis
Christopher Beaulieu
Peter M. Bohnenkamp
Carissa M. Bombaeei
David B. Bogoson
Christopher Brindisi
Grace L. Chen
Joseph Chen
Matthew Thomas Delude
Eric P. Dutko
Ethan A. Ertel
Matthew L. Favreau
Eric Scott Fleckenstein
Christopher D. Gatto
Masarath Ghiasuddin
Christine M. Goetter
Travis A. Groth
Jeffery Satin Gussenburg
Matthew J. Hale
Stephanie Iacadoro
Christopher J. Jensen
Sohrob Kazerounian
Steven J. Kochis
Bryan G. Lefert
John C. M. acaley
Robert J. Mahar
Timothy H. Marciniak
Carolyn A. M. issner
Christine J. Nafis
Glen R. Nichols, Jr.
Christopher O’Brien
Richard Osborne, III
Jason J. Pastore
Edward N. Perry
Nicholas Santamauro
Jonathan Jay Satlin
John E. Shaw
Sujit Singh
William F. Slattery
Majessire L. Smith
Zachary I. Stone
Andrew J. Sweatt
Jeffrey A. Tacy
Austin M. Upton
Andrew L. Urritti
Ajay Vasudevan
Brian V. Vilag
Justin P. Vinci
Steven J. Watson
Nolan T. Wilson
Erik E. Williamson
Alan Wong
December 2002 Slated for New Engineering Building

Plans are moving at an accelerated pace for the new Information Technologies Engineering (ITE) Building, designed by the national architectural and construction firm of Burt Hill, and Preiss Breismeister, P.C. of Stamford. In fact, the move-in date has been hastened to December 2002, three months ahead of the original scheduled completion date. Design of the new 100,000 sq. ft. facility is nearing completion. The ITE Building, which will be situated between the Homer Babbidge Library and the new School of Business Administration building, will house the departments of Electrical & Computer Engineering and Computer Science & Engineering. Groundbreaking and construction are set to begin in mid-July 2001. The facility will accommodate nearly 60 faculty and research offices, 27 research labs totaling 15,000 sq. ft., two high-tech classrooms, hardware labs, special purpose computing teaching labs, senior design labs, administrative suites and conference space, and a 2,900 sq. ft. learning center. The facility also includes an attached 350-seat auditorium that will provide conferencing capabilities for both the School of Engineering and the University at large.

For additional information, please contact Tom Anderson, Associate Dean for Academic Affairs, at (860) 486-2473.

“This building will provide the School of Engineering with a world-class facility that will significantly enhance our undergraduate and graduate education missions in the growing field of Information Technology and related engineering disciplines.”

Thomas Anderson
Associate Dean
The December NU Environmental Clinic was organized by Chemical Engineering professor Douglas Cooper and focused on environmental management systems as integral elements of a comprehensive business management system. Among the themes of the program were core elements of an EMS, and cost savings and enhanced competitiveness from instituting ISO 14001. The presenters, introduced by Head of Chemical Engineering Dr. Joseph Helble, included Judy Wlodarczyk, an ISO 14001 auditor and an environmental management specialist providing a full complement of environmental assistance to Connecticut manufacturers; Scott Gordon, an independent consultant with 30 years' industrial experience; and Jeanne Dube, an ISO 9000 auditor and consultant.

Dr. Helble opened the program with comments on the mounting need for companies to anticipate and manage the environmental impacts of their business and manufacturing activities. Noting the School of Engineering’s strengths in the areas of environmental research area and education, he commented that the Clinic will help the School build ties and support to Connecticut's business community in addressing increasingly complex environmental issues.

Among the attendees were representatives of Connecticut manufacturers, environmental consultants and town governments. According to Dr. Cooper, post-workshop feedback was very good. One attendee commented the program offered a valuable overview of ISO 14001 that will help him, as a consultant, get his clients thinking about their approach to environmental management. Another attendee, an employee of a small Connecticut town, indicated that municipalities are beginning to think about applying ISO 14001 to their own environmental management.

Key facets of the ISO 14001 system, discussed during the Clinic, include:

- Establishment of an environmental policy;
- Determination of environmental aspects and impacts of products and services;
- Planning of environmental objectives and targets;
- Implementation of programs to meet objectives;
- Corrective action and management review.

The NU Environmental Engineering Clinic was established as part of a $1 million endowment created by NU in 1999. Videotaped copies of the clinic program, and program materials, may be obtained by contacting Ms. Susan Soucy in the UConn Department of Chemical Engineering, at (860) 486-4648.