School of Engineering Establishes Fuel Cell Center with $14.5M in Support

In this Issue:
May Trip a Highlight for EUROTECH Students

Students Excel at Major Design Experience

New Research Agreement for Engineering and Pratt & Whitney
As the second year of the third millennium dawns, growth continues to shape the School of Engineering. The fall term started with a large jump in our freshman enrollment figures (from 179 in 1997 to 346 in 2001) accompanied by an increase in average SAT scores — offering strong evidence that our recruiting efforts are bearing fruit. These efforts were augmented by generous donations from alumni and corporate friends, whose ongoing support lets us expand our scholarship program and enable a greater number of academically-excellent students to earn an engineering degree from the University of Connecticut.

Another important development has been our creation of a new center of excellence dedicated to fuel cell research and applications, the Connecticut Global Fuel Cell Center (see page 4). Central to the new Fuel Cell Center is establishment of six new endowed chair positions within the School of Engineering and an integrated mix of research, university-industry collaboration, and technology transfer geared to position Connecticut as a world leader in commercial deployment of advanced fuel cell technologies. The Center was also fortunate in securing two major fuel cell power plants that will serve the dual purposes of providing working demonstration units and powering engineering buildings at the Storrs and Depot campuses. The School recently completed construction of a new fuel cell building at our nearby Depot Campus; this state-of-the-art center will serve as the hub for our research activities in collaboration with Connecticut’s rich crop of fuel cell companies.

With the fall term, we welcomed a new Head of Electrical & Computer Engineering, Dr. Robert Magnusson, and six new assistant and associate professors. We are gratified to count three new female faculty members among our new recruits, two in Civil & Environmental Engineering and one in Computer Science & Engineering. All of our new faculty members are briefly profiled on page 8.

During the spring and fall, we also laid the groundwork for a new minor program in Information Technology that will enhance the educational preparation and career potential of students seeking to work in this increasingly vital technological arena. The new minor, to be offered beginning with the fall 2002 term, will be available to undergraduate students in non-computer science/engineering majors.

In September, construction crews broke ground for our long-awaited new Information Technologies Engineering (ITE) Building, to be erected between the Homer Babbidge Library and the newly dedicated School of Business (SB) building. Construction is proceeding smoothly toward our completion date of December 2002 (see page 15 for more details). As you peruse this issue, please also note the section highlighting our faculty achievements (pages 16-19) as editors of prestigious technical journals, Fellows of professional societies and recipients of federal research honors.

Change. Expansion. Evolution…Growth — all are vital to training the engineering workforce of tomorrow. Your UConn School of Engineering is helping to lead the way.

Amir Faghri, Dean
School of Engineering Establishes Fuel Cell Center with $14.5M in Support

Into the Classroom: Teachers Tackle Engineering

New Website for Engineering

Faculty Notes

May Trip a Highlight for EUROTECH Students

Engineering Welcomes New Faculty

Enrollment Growth Continues

New Head for Electrical & Computer Engineering

DeWolf Co-Authors Revision of Mainstay Text

Alumni Notes

Dominion Nuclear Establishes New Engineering Scholarships

Information Technology for Non-Computer Engineering Majors

Construction Innovator Awarded Honorary Degree

Outstanding Faculty & Staff Awards Presented

Students Excel at Major Design Experience

Construction Begins on New Engineering Building

Faculty Recognition

Alumni Activities

New Research Agreement for Engineering and Pratt & Whitney
The School of Engineering has established a new center of excellence in fuel cell technology, with investments in the amount of $14.5 million from various federal, private and State partners. The center, called the Connecticut Global Fuel Cell Center, incorporates a core research activity with six endowed Chaired Professorships, a new state-of-the-art fuel cell building, and two recently-donated major fuel cell power plants.

Central to the initiative is an historic agreement signed recently between Connecticut Innovations (CI) and the University of Connecticut for establishment of the Center, drawing on a $3.5 million investment committed by CI through its Clean Energy Fund initiative. The sum will be matched with another $3.5 million to be garnered from industrial partners and State matching funds. In addition, $2.5 million has been earmarked by the U.S. Congress for fuel cell research at the Connecticut Global Fuel Cell Center.

In announcing the agreement, Connecticut Governor John G. Rowland said “This will be the most significant facility of its kind in the country — if not the world. It is an extraordinary concept that will create the knowledge base and the workforce that will influence the future of fuel cell technology worldwide.”

The Center will be housed in a new 16,000 sq. ft. building located at the University’s nearby Depot Campus. Design and construction of the building, which was completed in October 2001, was subsidized through a $2 million grant from the U.S. Department of Commerce Economic Development Authority augmented with $670,000 in State matching funds.

The Center will benefit significantly from the recent donation of two powerful large-capacity fuel cells. The power plants, with an estimated combined market value of $2.25 million, were donated by Energy East Corp., via its subsidiary Connecticut Natural Gas (CNG) Corporation, and the Connecticut Clean Energy Fund.

UConn President Philip Austin said “This is a groundbreaking partnership which will propel commercial development and deployment of a vital new alternative energy source. With the current high-profile focus on energy and the nation’s ability to meet growing demand for power, fuel cells hold promise for increasing the nation’s reserve of sustainable, renewable energy resources. This alliance will put Connecticut on the nation’s energy map as a leader of new energy development.”

Under terms of the agreement, the Center will establish six new Chaired Professorships — to be filled by world leaders in the field of fuel cell R&D — in the School of Engineering. Each Chair will have discretionary authority to spend the investment income associated with a $1 million endowment/chair. The new Center will focus on fostering research and development of advanced fuel cells, collaboration with Connecticut’s energy companies, academic instruction and continuing education, outreach, technology transfer and business incubation.

Arthur Diedrick, Chairman of CI’s Board of Directors and the Clean Energy Fund, said “This center will add a new dimension to the very substantial research and development activities going on at our Connecticut companies and around the world.”

Fuel cells are virtually pollution-free, depending on the fuel used, and offer a new alternative to conventional electrical power sources for many applications. Moreover, owing to their mobility and variable size, they can be used to power vehicles, buildings, appliances from lawn mowers to laptop computers, and data centers, hospitals and other users who demand round-the-clock access to reliable electrical power.

“Energy is a hot button not only here in the U.S. but, increasingly, worldwide, as issues of supply, sustainability and environmental degradation grow more urgent,” agreed John Petersen, Chancellor and Provost of the University of Connecticut. “We believe this Center, in partnership with Connecticut industry, will transform scientific knowledge into competitive, reliable and sustainable fuel cell development and ultimately commercial deployment.”

One fuel cell unit, a new 250 kW Direct FuelCell® power plant developed by FuelCell Energy, Inc. of Danbury, CT, is scheduled for installation in mid-2002 at the new Fuel Cell Center building, where it will power the Center itself, with residual energy available for other nearby facilities. The unit’s cost was underwritten by the Connecticut Clean Energy Fund at a cost of $1.25 million. The Clean Energy Fund invests in enterprises and other initiatives that promote and develop sustainable markets for renewable energy. When installed, the 250 kW unit will distinguish the University of Connecticut as among the first Direct FuelCell® power plant recipients in Connecticut.

The second unit, a PC 25™ fuel cell donated by CNG’s Energy East, will be installed at the United Technologies Engineering Building at the Storrs main campus. The PC 25™ unit, supplying 200 kW, is a large-capacity cell suitable for powering commercial buildings; it was manufactured by UTC Fuel Cells of South Windsor, a United Technologies Company. It allows for waste heat to be integrated into the building’s thermal conditioning system (heating and cooling) and is virtually pollution- and noise free. The unit has an estimated market value of $1 million.

Dean of Engineering Amir Faghri expressed great enthusiasm and satisfaction with development of the Fuel Cell Center. “With a unique assembly of quality resources and commitment by State, federal and industrial partners, the new Fuel Cell Center will be the leading global center of excellence in fuel cell technology and innovation.”

The Connecticut Global Fuel Cell Center on the Depot Campus.
Into the Classroom
Teachers Tackle Engineering

The tables of learning were turned for 30 math and science teachers and school administrators from Connecticut and Massachusetts this summer. As participants in the School of Engineering’s second da Vinci Project, they spent a summer week immersed in the engineering disciplines and returned to the classroom both energized and armed with hands-on experiments and modules that will be integrated into their classrooms in the coming year. The week-long, expenses-paid residential program, which targets middle and high school teachers and administrators, took place August 5-10 at the University’s main campus in Storrs.

Among this year’s participants were five teachers and administrators from Massachusetts — spurred by the state’s recent initiative to introduce engineering into the K-12 school curriculum — and two repeat attendees who returned to explore a new project unit. The School of Engineering developed the program expressly to help Connecticut post-elementary schools integrate elemental engineering into the classroom so students gain an early exposure to the role of engineering in contemporary life. Robert Vieth, Director of the University’s Fermentation and Bioprocessing Facility, organizes and directs the da Vinci Workshop program. Commenting on the success of this year’s da Vinci program, Mr. Vieth said “Once again, the participants have come away from this program with ideas and concepts to bring back to the classroom, incredibly enthused about the prospect of sharing engineering with their students.”

During the week, participating teachers were immersed in rudimentary engineering concepts, but also had the opportunity to engage in one of six different experiments demonstrating specific engineering principles. Workshop coursework was taught by UConn engineering faculty and adjunct faculty, including Allison MacKay (Civil & Environmental Engineering); John Bennett, (Mechanical Engineering); Jim Koch (Director of the Ion Implantation and Surface Science Laboratory); Jim Fenton (Chemical Engineering); Eric Donkor (Electrical & Computer Engineering); and Pat Mather (Chemical Engineering). Among the modules offered were units in energy transfer, wastewater treatment, construction of an electrochemical fuel cell, conductive properties of materials, construction of a logic circuit, and explorations in polymer science.

An important benefit of the workshop is that, at the conclusion, teachers leave not only with a heightened understanding of engineering careers and concepts but also course modules in engineering and experiments to integrate into their school curricula.

Participating teachers were enthusiastic and complimentary in their appraisal of the program, praising the da Vinci faculty and curriculum with comments such as “Definitely one of the best and most motivating experiences I have ever had. The closeness and access to the instructors was great,” “This was an amazing, exciting experience and the time was well spent. I have been to many workshops and this was the best. I am very excited about taking all of this back to my classroom,” and “This has been an incredible week that has opened my eyes to innovative ideas.”

During an evening banquet, participants enjoyed presentations by several of the project groups as well as the remarks of Richard Cole, Executive Director of the Connecticut Academy for Education in Math, Science & Technology, and of Kevin McLaughlin, a respected physics teacher at E.O. Smith High School in Storrs and a graduate of UConn’s Chemical Engineering program. In his presentation, Mr. Cole applauded the da Vinci program and observed that Leonardo da Vinci was a unique “Renaissance man” of astounding intellectual and artistic abilities who lacked the sophisticated education available to American school children. He exhorted educators to strive to stimulate and nurture the qualities of curiosity, natural inventiveness, and interest in science/engineering among students of all ages.

Mr. McLaughlin recounted his experiences as a high school science educator and offered his recommendations on ways to enhance the quality of science learning.

For information about the 2002 da Vinci Project, please contact program Director Bob Vieth by phone at (860) 486-2590 or by e-mail at Robert.Vieth@uconn.edu.
Nelly Abboud, associate professor of Civil & Environmental Engineering and president of the American Lebanese Engineering Society, received Lebanon’s highest honor, the National Order of the Cedar Medal, presented by Lebanon president General Emile Lahoud on August 2, 2001. She was one of only three individuals presented the award, which was bestowed during a gala ceremony at the Presidential Palace.

Reda Ammar, professor and Department Head of Computer Science & Engineering, was promoted to Editor-in-Chief of the International Journal on Computers and Their Applications. He formerly was associate editor.

Yaakov Bar-Shalom, professor of Electrical & Computer Engineering, is co-author of a new textbook published in June by John Wiley & Sons, Estimation with Applications to Tracking and Navigation: Algorithms and Software for Information Extraction. Co-authors were X.R. Li and T. Kirubarajan. The book is already in use as a graduate text at several universities and for in-house training at a number of major corporations.


John Enderle, Director of the Biomedical Engineering Program and professor of Electrical & Computer Engineering, recently was named co-editor of the IEEE Engineering in Medicine & Biology Magazine.

Norman Garrick, associate professor of Civil & Environmental Engineering, was presented a Meritorious Service Award by the New England Chapter of the American Public Works Association during a May 23 luncheon. Dr. Garrick, who recently concluded his role as Interim Director of the Connecticut Transportation Institute, also appeared as a transportation expert on a discussion panel in a publicly televised program, “Road Wear: Connecticut’s Transportation Dilemma,” which aired initially May 4, 2001.

Maurice Gell, professor-in-residence of Metallurgy & Materials Engineering, organized the Department of Energy’s Advanced Gas Turbine Systems Research (AGTSR) Materials workshop, held in Greenville, SC October 8-10, 2001. He also presented a paper and chaired a session.

In October 2001, Ramesh B. Malla, Associate Professor of Civil & Environmental Engineering, began a one-year commitment as Chair of the Executive Committee of the Aerospace Division of the American Society of Civil Engineers (ASCE). The ASCE Aerospace Division applies civil engineering to the exploration and development of outer space and other extreme environments. The Division has a flagship journal, Journal of Aerospace Engineering and a biennial conference “SPACE & ROBOTICS.”

Following the September 11 terrorist attacks, professor and Department Head (Civil & Environmental Engineering) Erling Murtha-Smith presented his expert analysis, in various media, of the structural features of the World Trade Center towers and the stresses exerted by fully-fueled airlines colliding with the buildings. An expert on structures, including progressive collapse, non-linear structural analysis and stability, Dr. Murtha-Smith was interviewed by Connecticut Radio Network and WTIC radio’s The Ray Dunaway and Diane Smith show; WFSB (channel 3) TV; and several newspapers, including the New Britain Herald and the Journal Inquirer.

Fred Ogden, associate professor of Civil & Environmental Engineering, was presented the Honored Alumnus Award by the Lamar Community College (Colorado). Dr. Ogden’s alma mater before enrolling at Colorado State University, Fort Collins, where he earned his B.S., M.S. and Ph.D. degrees. Dr. Ogden received the alumni award during commencement ceremonies at LCC May 11th; he was also guest speaker for the event.

Leon Shaw, associate professor of Metallurgy & Materials Engineering, was awarded a U.S. patent (number 6,214,309) for his method to synthesize low cost nanostructured carbide powders. The patent, entitled “Sinterable Carbides from Oxides Using High Energy Milling,” was awarded in April 2001 and entails the mechanical activation of reactants at ambient temperature, followed by high temperature chemical reactions; this process reduces production time and temperature, thereby yielding cost savings.

continued on page 11
A group of students enrolled in the multidisciplinary EUROTECH® program enjoyed an exciting educational trip to Germany in May that included tours of various “partner” industrial companies and universities and a special excursion to Munich. The trip involved 15 first and second-year students enrolled in the dual-degree EUROTECH program, accompanied by co-director Dr. Friedemann Weidauer, a professor of Modern & Classical Languages at UConn. A five-year undergraduate degree program, EUROTECH is a collaboration between the School of Engineering and the German Section of the Department of Modern & Classical Languages that allows engineering students to earn two degrees, a B.S.E. in engineering and a B.A. in German, and spend a 4-6 month internship working in Germany in a partner corporation.

The May 21-31 trip was funded by grants from the Connecticut Department of Economic and Community Development and the German Academic Exchange Service. The tour group spent the bulk of its Continental tour in Connecticut’s sister state, Baden-Württemberg, visiting the partner companies Index, Trumpf, and Fraunhofer Institut, and touring the universities of Stuttgart and Heidelberg as well as the University of Applied Sciences Esslingen. In Munich, the group had an extensive tour of Siemens AG’s Research and Development campus. Over 840 students and 55 faculty members have participated in the Baden-Württemberg-Connecticut Higher Education Exchange Program since it was established in 1991. Currently 60 Connecticut college students are enrolled in German universities and 30 German students are at Connecticut higher education institutions.

Five EUROTECH students currently are amid internships and/or study abroad programs in Germany, including Alex Peslak, who works for Siemens in Munich and Lindsay Amidon, who studies at the University of Stuttgart.

The activities of recent graduates of the EUROTECH program bear ample evidence of the unique opportunities and success of the program. Michael Leary (Mechanical Engineering/German Studies ’01) will train with the German company, Continental, in Hannover for six months and then return to the U.S. to work for their U.S. subsidiary, Conti Tech, as an applications engineer. Peter Bonzani (Chemical Engineering/German Studies ’01) has nearly completed an internship with Siemens AG in Erlangen, working on alternative materials for computer chips and will return to work in this booming sector of Connecticut’s high tech industry. Kris Noiseux (B.S. and M.S. Mechanical Engineering/B.A. German Studies ’01) works in Connecticut for the German-owned company, Ettmeyer, which produces laser optical measuring equipment marketed globally. The remaining ’01 graduates have embarked on similarly promising careers.

The EUROTECH program was featured in the Hartford Courant (“Bilingual Advantage,” May 3, 2001) and the Manchester Journal Inquirer (“Are Students Prepared for a Global Economy?” May 12, 2001) as well as UConn’s academic weekly, The Advance.
Engineering Welcomes New Faculty

In academia, as in collegiate or professional sports, recruiting vibrant new members is critical to maintaining dynamic, exciting and competitive programs. As academic disciplines evolve to meet the changing expectations of society and the student populace, enrollments rise and faculty members retire, the School of Engineering strives to attract energetic, accomplished junior and senior faculty members to its departments and programs. During 2001, the School was pleased to welcome seven new faculty members, each of whom brings an outstanding record of academic achievement and promise. Among the seven are six new assistant and associate professors and a new professor and Head of Electrical & Computer Engineering, Dr. Robert Magnusson (see story on opposite page).

Richard S. Parnas joined the Department of Chemical Engineering as an associate professor. Dr. Parnas earned his Ph.D. (1990) and M.S. degrees in chemical engineering at UCLA. Since 1990, he has been with the National Institute of Standards and Technology, serving in the Polymers Division, where he was composites group leader for five years. Dr. Parnas has extensive industry experience, having worked previously as a chemical engineer with SRI International, CA and project engineer with Exxon Research & Engineering, NJ.

He is the recipient of numerous awards, including a Fulbright Scholarship and a Senior Fellowship for study at the Catholic University in Belgium, the Visiting Scholar Award presented by the Johns Hopkins Chemical Engineering Department, several SPE best paper awards, the NIST Bronze Medal, and fellowships and scholarships awarded while Dr. Parnas pursued graduate degrees. He has authored more than 100 publications including the recent book, Liquid Composite Molding. Dr. Parnas’ research interests embrace the use of fiber optic spectroscopy for analysis, control and monitoring composite processes, liquid composite molding, and localized fluorescence measurements of interfacial polymeric properties.

Lisa Aultman-Hall has joined the Civil & Environmental Engineering Department as an associate professor with a research focus in the area of transportation studies. Prior to joining UConn, she was an assistant professor at the University of Kentucky, a position she had held since 1996. She received her Ph.D. from McMaster University, Hamilton, Canada in 1996. At the University of Kentucky, Dr. Aultman-Hall was deeply involved in community outreach relating to bicycle transportation. Her research studies include route choice behavior, freight transportation planning and the safety of specific driver groups and large trucks. Dr. Aultman-Hall uses Geographic Information Systems (GIS) and global positioning systems (GPS) extensively in her research.

Also new to the Civil & Environmental Engineering Department is Britta Ann Holmén, whose expertise lies in environmental engineering. Dr. Holmén earned her Ph.D. in Civil and Environmental Engineering from MIT (1995), and her M.S. in geological oceanography from the University of Washington, Seattle. She joins UConn from the University of California, Davis, where she held various positions, most recently as assistant adjunct professor in Civil & Environmental Engineering. She previously was assistant research geochemist and a postdoctoral associate, also at UC Davis, an environmental geochemist with Cambridge Analytical Associates in Boston, a geologist with the Smithsonian Astrophysical Observatory, Cambridge, and a research technician with Harvard University’s geology department. Dr. Holmén’s current research interests are environmental particle interface chemistry, quantifying the mechanisms and rate of organic contaminant transport, non-point source contaminants, atmospheric ultrafine and nanoparticle processes, and transportation impacts on environmental quality.

Chun-Hsi (Vincent) Huang joined the Computer Science & Engineering Department as an assistant professor. Dr. Huang earned his Ph.D. from the State University of New York, Buffalo in May 2001, and his M.S. from the University of

Enrollment Growth Continues

With the start of the new fall 2001 term, the School of Engineering now has enrollment figures that reveal freshman enrollment exceeded expected figures. According to the latest statistics compiled by the Undergraduate Office, freshman enrollment in engineering was 346 students for the fall term. This is a significant figure that represents a 93 percent increase over the freshman enrollment figures of 1997. It is notable that we achieved this significant milestone while also boosting the quality of our incoming students as measured by average SAT score.

The steady climb can be attributed in part to extensive outreach efforts by the School, including Engineering 2000 and the da Vinci Project, two summer programs that introduce high school students and teachers to core engineering principles and disciplines. Our generous scholarships also provide prospective students a significant incentive to come to UConn: each year, the School of Engineering awards approximately 230 scholarships (not including the University’s merit or need-based scholarships), of which 60-80 are presented to incoming freshmen. Generous donations from engineering alumni and corporate friends support the School’s merit-based scholarship program.

“We are gratified by this steady increase in freshman enrollment and look forward to continued growth in future years,” notes Dean of Engineering Amir Faghri.

The table below exhibits the statistical climb in undergraduate freshman enrollment since 1997.

<table>
<thead>
<tr>
<th>Year</th>
<th>1997</th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>97-98</th>
<th>97-99</th>
<th>97-00</th>
<th>97-01</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>179</td>
<td>214</td>
<td>254</td>
<td>314</td>
<td>346</td>
<td>20%</td>
<td>42%</td>
<td>75%</td>
<td>93%</td>
</tr>
</tbody>
</table>
Southern California, Los Angeles. His research interests include sequential/parallel algorithm design and analysis, experimental algorithms, high performance parallel computing, bioinformatics and cluster/grid computing. Among his current projects are design and analysis of general-purpose parallel algorithms for irregularly structured problems, as well as the implementation on various architecturally different parallel machines.

Also joining the Computer Science & Engineering Department is Dina Q. Goldin, who earned her Ph.D. (1997) and M.S. degrees in computer science from Brown University. Dr. Goldin previously held dual positions as adjunct professor with the Department of Computer Science, Brown University and assistant professor of Mathematics and Computer Science at the University of Massachusetts, Boston. She has held several consultancies and non-academic jobs in industry, with IBM, Parametric Technology Corp. and Q Technology — all of Massachusetts — and Ceyal in Jerusalem, Israel. Dr. Goldin’s research interests encompass computing paradigms, languages for programming and querying, algorithms, similarity querying and computer-aided design (CAD). She received an NSF CAREER Award in 1999.

S. Pamir Alpay joined the Metallurgy & Materials Engineering Department in January 2001 as an assistant professor. Dr. Alpay received his Ph.D. (1999) from the Department of Materials Engineering at the University of Maryland and his M.S. from Middle East Technical University in Ankara, Turkey. In addition, he completed post-doctoral work at the University of Maryland where he worked on a joint project with the National Institute of Standards and Technology. Dr. Alpay is the recipient of the NATO-A1 doctoral scholarship. His interest areas concentrate on the theory and modeling of properties of thin film electronic and smart materials. Dr. Alpay serves regularly as a reviewer for Acta Materialia and the Journal of Applied Physics, as well as an external reviewer of proposals for government agencies in the U.S.

in the news

New Head for Electrical & Computer Engineering

A new face and strong leadership presence now energize the Electrical & Computer Engineering (ECE) Department in the figure of Dr. Robert Magnusson, the new Head who joined the Department in August. Dr. Magnusson, who earned his Ph.D. (1976) and M.S. degrees in electrical engineering from the Georgia Institute of Technology, was formerly a full professor and Chair of Electrical Engineering at the University of Texas at Arlington. As a new Department Head, Dr. Magnusson says, he will approach his role in a low-key manner, with a focus on achieving a number of specific goals, including hiring three superbly qualified new faculty, continuing to build enrollment through recruitment of top students, and formulating a new departmental strategic plan.

“We are very pleased to have an individual of Robert’s caliber on board. He brings to UConn an impressive record of achievement as an administrator and researcher, and we all look forward to his deft and steady guidance of the outstanding Electrical & Computer Engineering Department. His energy, enthusiasm and vision for engineering education are both exciting and infectious,” comments Dean of Engineering Dr. Amir Faghri.

He was drawn to the ECE department, says Dr. Magnusson, for a variety of reasons. “I am impressed with the faculty and research programs — particularly the multi-disciplinary programs which make it easier to gain funding. When I first came to campus and spoke with faculty, I sensed a strong spirit. People want to do something, to go forward, to raise the department’s reputation. It’s a very exciting opportunity,” he said.

Dr. Magnusson’s career encompassed 17 years with the University of Texas, several years with the Georgia Institute of Technology in research and visiting professor capacities, and four years as an engineer with the State Electrical Power Works of Iceland. At the University of Texas, Dr. Magnusson established the Electro-Optics Research Laboratory in 1986 and co-founded the Electro-Optics Research Center in 1996. His research focus lies in the areas of diffractive optics and laser technology. Dr. Magnusson is a co-inventor on four U.S. patents, participates in a variety of professional societies, and has received numerous awards for research and teaching excellence, including the IEEE Third Millennium Medal, Halliburton Outstanding Research Award, and election to Fellow of the Optical Society of America (1998).

With his students and colleagues, Prof. Magnusson has authored numerous journal articles and conference papers. He serves as General Chair for the Diffractive Optics and Micro-Optics Topical Meeting to be held in June 2002. He was recently appointed Topical Editor for Applied Optics-Optical Technology & Biomedical Optics.

The Department Head position was vacated in 1999 with the retirement of Dr. David Jordan. Dr. Mehdi Anwar served as Interim Head throughout the duration of the search process and turned over the reigns to Dr. Magnusson in August 2001.
DeWolf Co-Authors Revision of Mainstay Text


In updating the textbook, the authors reorganized material, substantially revised content and introduced entirely new challenges for most of the 1,600+ homework problems. In addition, photographs have been added to each chapter so students may better visualize concepts, the introduction has been expanded to include overviews of statics and methods of problem solving, and the book now sports an appendix intended to aid students in preparation for the Fundamentals of Engineering (FE/EIT) exam.

The revision process took nearly three years and provided Dr. DeWolf the opportunity to work more extensively with Drs. Beer and Johnston, who are among the leading engineering mechanics educators of the past half-century. Their first edition of *Mechanics for Engineers, Statics and Dynamics*, appeared in 1957. Since then, comments Dr. DeWolf, they have sold more books than are contained in the University’s Homer Babbidge Library.

“Working with Ferd and Russ,” says Dr. DeWolf, “has been an enjoyable experience, providing me the opportunity to learn about the textbook business. Even when deadlines were approaching, Ferd and Russ always maintained their senses of humor.” Their books are best sellers around the globe; the second edition of *Mechanics of Materials*, in fact, was translated into the Chinese, Greek, Italian, Korean, Portuguese, and Spanish languages.

Many engineering schools have already adopted the third edition of *Mechanics of Materials*, including those in Carnegie Mellon University, Georgia Institute of Technology, the University of Connecticut, the University of Illinois, the University of Michigan, Purdue University and the University of Wisconsin.

alumni notes

**Thomas Benjamin** (B.S. Chemical Engineering, ’71, M.S. ’76) recently joined Argonne National Laboratory as Technical Advisor to the U.S. Department of Energy in the area of fuel cells for transportation. He previously worked in management with M-C Power Corporation.

**Zahi K. Bourjeili** (B.S. Chemical Engineering ’96) recently left his position as a Process Development Engineer for Sherwin-Williams for a position with the U.S. Army Corps of Engineers.

**Gordon Daring** (B.S. Civil Engineering ’79) was recently promoted to associate at Vanasse Hangen Brustlin, Inc., Middletown, CT. The company is an engineering, planning and applied sciences firm.

**Robert DeAngelis** (B.S. and M.S. Mechanical Engineering ’68 and ’73) recently retired after 33 years with the Naval Undersea Warfare Center. He received the Navy Superior Civilian Service Award for contributions in the area of submarine and surface ship acoustic sensors.

continued on page 15

---

**Dominion Nuclear Establishes New Engineering Scholarships**

Dominion/Millstone Energy recently pledged $50,000 annually to the School of Engineering for establishment of the Dominion/Millstone Energy Scholarship Program at the University of Connecticut. Dominion Nuclear Connecticut, owner and operator of Millstone Nuclear Power Plant, created the gift to support engineering scholarship awards at the university. The annual grants will be used to fund sixteen $3,000 scholarships for outstanding students studying the fields of electrical, mechanical, and civil/structural engineering.

Alan Price, Vice President of Nuclear Technical Services at Millstone Nuclear Power Station, delivered the first annual $50,000 payment to Dean Amir Faghri on October 26, 2001. Mr. Price stated that “the scholarship program was initiated to support several fundamental goals of the Dominion Organization. These goals include investment in our communities through philanthropic and volunteer activities, promotion of diversity in our workforce, and ensuring the safe operation of our nuclear facilities by maintaining a highly qualified and dedicated staff of professionals at Millstone.”

continued on page 20
Construction Innovator
Awarded Honorary Degree

During the 2001 commencement activities, the University of Connecticut awarded Charles H. Thornton, Chairman of the Thornton-Tomasetti Group, an honorary Doctorate of Science degree. Mr. Thornton, who is among the world’s foremost forensic engineers, was nominated by members of the UConn Civil & Environmental Engineering Department. His engineering firm is involved in construction projects all over the globe, including the Swiss Bank Headquarters in Stamford, the United Airlines Terminal at O’Hare International Airport in Chicago, and the world’s tallest buildings, the Petronas Twin Towers in Kuala Lampur, Malaysia. During his career, he has assisted in investigations surrounding the collapse of the Hartford Civic Center Coliseum, the L’Ambiance Plaza, and the bombed federal building in Oklahoma City in 1995. Thornton is founder and chairman of the Architects Constructors and Engineers Mentor Program, a wide-ranging consortium that guides inner-city students toward careers in engineering and related fields. He also is president of The Salvadori Center, a non-profit organization that educates more than 2,000 New York City middle schools students annually in mathematics and science, using architectural and engineering principles.

Faculty Notes continued

Alex Shvartsman (associate professor of Computer Science & Engineering), is the UConn Principal Investigator, and Alex Russell (assistant professor of Computer Science & Engineering) is the Co-Principal Investigator of the new joint MIT-UConn NSF grant netting $1,030,000 (UConn share is $463,000). The joint project investigates communication and data-sharing issues in dynamic distributed systems. Dr. Shvartsman was elected to a two-year term to the Steering Committee of the International Conference on Distributed Computing (DISC). DISC is one of the two most prestigious international forums for research dealing with theory of distributed computing and distributed algorithms.

Thomas Wood (associate professor of Chemical Engineering) is Principal Investigator, with co-PI William Bentley (University of Maryland) on a new National Science Foundation grant in the amount of $693,049. The research, funded through 2005, involves development of an enzyme-based manufacturing process without the use of solvents and other toxins traditionally used in production of intermediates for pharmaceuticals and dyes.

Engineering Launches New Minor
Information Technology for Non-Computer Engineering Majors

The School of Engineering has launched a new minor program in Information Technology, to be offered beginning in the fall 2002 semester. The new program addresses a growing corporate demand for workers with strong information technology skills. Information technology (IT) is the fastest growing pool of occupations in the nation, and the Bureau of Labor Statistics projects that between 1994 and 2005, the U.S. will require more than one million new IT workers in the three core IT areas — computer scientists and engineers, systems analysts and computer programmers — to fill new jobs and replace departing workers.

A recent survey of mid- and large-size U.S. companies, conducted by the Information Technology Association of America (ITAA) of Arlington, VA, suggests there are approximately 190,000 unfilled IT jobs in the U.S. today due to a shortage of qualified workers. This deficit may have a critical effect on the nation’s economic competitiveness, because today’s industrial, high tech and technology sectors are so reliant on the integration of IT professionals into their organizations. According to the survey, half of all IT jobs are in the two positions that exist in almost every organization — technical support and network administration. IT workers are also employed, for example, in positions involving internal troubleshooting; facilitation/customer service; hardware/software installation; configuration upgrades; and systems operation, monitoring, maintenance.

According to Assistant Dean for Undergraduate Education, Marty Wood, the minor program in Information Technology is available to non-computer engineering majors, particularly in the traditional engineering disciplines. “In two or three years,” he comments, “we hope this minor will be open to non-engineering majors. Our short range goal is to offer this minor to engineering students, obtain corporate feedback and assessment, revise the curriculum and then offer the minor to any UConn student.”

Alex Shvartsman (associate professor of Computer Science & Engineering), is the UConn Principal Investigator, and Alex Russell (assistant professor of Computer Science & Engineering) is the Co-Principal Investigator of the new joint MIT-UConn NSF grant netting $1,030,000 (UConn share is $463,000). The joint project investigates communication and data-sharing issues in dynamic distributed systems. Dr. Shvartsman was elected to a two-year term to the Steering Committee of the International Conference on Distributed Computing (DISC). DISC is one of the two most prestigious international forums for research dealing with theory of distributed computing and distributed algorithms.

Thomas Wood (associate professor of Chemical Engineering) is Principal Investigator, with co-PI William Bentley (University of Maryland) on a new National Science Foundation grant in the amount of $693,049. The research, funded through 2005, involves development of an enzyme-based manufacturing process without the use of solvents and other toxins traditionally used in production of intermediates for pharmaceuticals and dyes.
The 2001 Outstanding Junior Faculty Award was presented to Patrick Mather, associate professor of Chemical Engineering, and Alexander Shvartsman, associate professor of Computer Science & Engineering. The award is presented to assistant or associate professors who have established outstanding records of scholarly achievement in research, teaching and service with the promise of continued outstanding contributions in the future. The 2001 Outstanding Teaching Award was presented to Reda Ammar, professor and Department Head of Computer Science & Engineering, for excellence in undergraduate or graduate teaching, advising and development of innovative teaching methodologies. The Outstanding Staff Service Award went to Diane Chenelle, Administrative Assistant to the Electrical & Computer Engineering Department.

Junior Faculty Award

Both Junior Faculty awardees, Drs. Mather and Shvartsman, recently received prestigious National Science Foundation Early Career Development (CAREER) Awards, marking them among the top young academics nationally.

Dr. Mather, who joined the Chemical Engineering Department in 1999, earned his Ph.D. in materials at the University of California, Santa Barbara in 1994 and his M.S. from Pennsylvania State University. Before coming to the University of Connecticut, Dr. Mather worked at the U.S. Air Force Phillips Laboratory and the Air Force Research Laboratory — in the propulsion sciences division and polymer branch, respectively — and at the University of Utah as an adjunct faculty member in the Department of Mechanical Engineering. His research into the fundamental relationships between polymer molecular structure and material properties, has garnered him international attention. In addition to the recent NSF CAREER Award, Dr. Mather received an Air Force Palace Knight Fellowship and a National Defense Science and Engineering Graduate Fellowship. His research team enjoys funding of $500,000 yearly. Dr. Mather serves on the Editorial Board of Polymer Engineering and Science and on the Board of Directors for the Polymer Analysis Division of the Society of Plastics Engineers.

Dr. Shvartsman joined the Computer Science & Engineering Department in 1997. He earned his Ph.D. from Brown University in 1992 and his M.S. from Cornell University. His career achievements include pioneering a new approach to combining fault-tolerance and efficiency in parallel computation that is described by industry and academic peers as “seminal” research, and co-authoring a classic book, Fault-Tolerant Parallel Computation, with P.C. Kanellakis. Dr. Shvartsman earned a NSF CAREER Award for his work in the area of dependable distributed computing and is hailed as “one of the emerging leaders in the international distributed systems and distributed algorithms research community.” Since 1997, he has secured more than $1.15 million in external funding and commitment, and he is professionally active in the international distributed computing community. Before commencing his academic career, Dr. Shvartsman also acquired more than 14 years’ industrial experience while working with some of the world’s premier
computer companies, including Logica Inc., Digital Equipment Corporation and AT&T Bell Laboratories.

**Teaching Award**

**Dr. Reda Ammar**, 2001 recipient of the Outstanding Engineering Teaching Award, is highly regarded as a teacher of expansive breadth and experience, having taught at all curricular levels during his lengthy academic career, from introductory courses through advanced graduate courses, and software to hardware. He earned both his Ph.D. and M.S. degrees in computer science from the University of Connecticut. He joined the faculty of the UConn Computer Science & Engineering Department in 1985 and has also served as a faculty member and lecturer at Cairo University and The American University in Cairo in engineering and mathematics. He is active in curriculum design and development issues and led development of the undergraduate Computer Engineering degree program introduced in 2000. Dr. Ammar has also pursued external funding to support educational initiatives and scholarships, recently securing a grant from the National Science Foundation to support scholarships in computer engineering. Dr. Ammar is an innovative teacher who was among the first to use distance learning equipment in teaching — including compressed video. During his UConn career, Dr. Ammar has advised more than 50 graduate students and is highly respected for his preparedness, enthusiasm, dedication and desire to help every individual excel.

**Service Award**

**Diane Chenelle**, an Administrative Assistant to the Electrical & Computer Engineering (ECE) Department, is a UConn veteran of 16 years who has worked in ECE since 1990. During her years with the department, Mrs. Chenelle has served under five Heads and through many transitions, always exemplifying dedication and professionalism. Before coming to ECE, she worked in the University’s Technical Services Department as a Secretary II. Mrs. Chenelle has been instrumental in helping the department prepare for accreditation review, recruit new faculty members and coordinate the budget — tasks for which she often worked long hours to ensure they were completed properly and on time. The ECE faculty and former heads, as well as new Head Robert Magnusson, consider Mrs. Chenelle an invaluable member of the ECE team.

**Departmental Award**

Individual departments honored top faculty members during the reception, as well. **Fred Ogden**, associate professor of Civil & Environmental Engineering, received the C.R. Klewin Inc. Award for Excellence in Teaching; **Leon Shaw**, associate professor of Metallurgy & Materials Engineering, was named Outstanding Department Member; **Can Erkey**, professor of Chemical Engineering, received the Rogers Corporation Teaching Award; professors **Rajeev Bansal and Peter Willett** of Electrical & Computer Engineering received the Outstanding Teaching Award and Outstanding Research Award, respectively; and professor **Baki Cetegen** of Mechanical Engineering was named Outstanding Faculty member.
The opportunity to gain real-world engineering experience and tackle a genuine engineering challenge is an important facet of the undergraduate process. Each year, senior engineering students in several engineering departments engage in a one- or two-semester capstone major design course that provides hands-on learning trials and exposes them to the pressures and rewards of the workplace.

For students in Mechanical (ME) and Electrical & Computer Engineering (ECE), the major design experience begins in the fall, when seniors are given an array of potential design projects from which to choose. The students express their project preferences, with advice from their faculty advisors. Teams begin work immediately, meeting first with any sponsoring companies to flesh out the design limitations and objectives before researching existing alternatives and their associated faults.

Throughout the process, students apply the core concepts they learned in the classroom to an actual design project.

Seniors work closely with a sponsoring company, which provides the design challenges and, in some cases, a company consultant/mentor to the two-semester project. In exchange, students research the problem, conceive alternate solutions, design and refine one device, construct a working prototype, and provide the sponsoring company regular reports as well as the final product. In addition to providing financial support, each sponsoring company commits a staff engineer to advise the project team.

Seniors in Electrical & Computer Engineering also exhibited their working prototypes May 9th, demonstrating a variety of devices such as a fuel injection/ignition system for a Formula SAE race car, a more efficient label threading mechanism for an industrial machine, a trio of devices to enhance the reach of a wheelchair-bound individual, a diagnostic device for measuring the friction between paper and a rubber surface, a redesigned ultrasound system to accurately detect tumors, and an LED announcement matrix capable of scrolling messages and graphical images.

During the spring 2001 term, the Computer Science & Engineering (CSE) Department offered the major design experience for the first time. Under the guidance of associate professor Steve Demurjian, three teams of CSE seniors designed, planned and constructed a prototype software tool for real-time control of multiple model trains operating simultaneously but at different speeds on the same track. The project entailed not merely control of the trains, but also piggybacking of the digital commands on the same lines carrying power to the track. Sensors placed along the track allowed students to obtain real-time feedback on the location and status of the different trains. The teams displayed their real-time programs during a May 8th videotaped demonstration.


On May 9, 2001, ME seniors showcased their design projects during a Senior Design Open House and Demonstration Day. A team of judges reviewed each demonstration and announced the top three team awards at the conclusion of the demonstrations. Fourteen teams of ME seniors and one master’s level team exhibited design projects during the 2001 competition. The awardees included:

**First Place:**
*Optimizing Tape Rule Spring (Stanley Works)*
Art Macelynas, Gannon Ramy, Gregory Joseph

**Second Place:**
*Extrusion Measurement System (The Wiremold Company)*
Jessica Quagliaroli and Pedro Bernadino

**Third Place:**
*Vibration Characteristics of Solar Cells (NASA)*
Tina Morrison (M.S.)
Construction Begins on New Engineering Building

Construction crews broke ground in September for the School of Engineering's long-planned Information Technologies Engineering (ITE) Building, to be erected between the Homer Babbidge Library and the new Business Administration (BA) building. Groundbreaking was delayed when construction of the BA building took longer than expected. When completed, the 100,000 sq. ft., five-level ITE facility will house the departments of Electrical & Computer Engineering and Computer Science & Engineering. The current construction schedule targets a December 2002 completion date. An attached 350-seat auditorium is slated for completion in June 2003.

The building was designed by the national architectural and construction firm of Burt Hill, and Preiss Breismeister, P.C. of Stamford.

For additional information about the new ITE Building, please contact Ian Greenshields, Associate Dean for Academic Affairs, at (860) 486-2473.

The building includes five levels. A sub-ground level floor will hold research labs and specialty teaching facilities; the ground level first floor will hold classrooms and a 2,900 sq. ft learning center; the second floor will contain research labs, administrative and faculty offices for the CSE Department; the top floor will contain research labs, administrative and faculty offices for the ECE Department. The floor between the ECE and CSE departments will contain an executive conference room, research labs, spillover faculty offices and a faculty lounge.

alumni notes continued

James Droney (B.S. Chemical Engineering '83) has been appointed Vice President of Quality Assurance at automotive supplier H.D. Bronson.

Robert Gorman, Ph.D. (M.S. Mechanical Engineering '66) is Senior Vice President for the Engineering and Information Technologies Group at Anteon Corporation, where he oversees the high tech and scientific operations of the company's advanced ship and combat systems for military applications.

Robert John Klancko (B.S. Chemical Engineering '67) is a partner at the consulting firm Klancko & Klancko, LLC in Woodbridge, CT. Robert was honored by Connecticut Governor John G. Rowland, who proclaimed April 17, 2001 as Robert John Klancko Day in recognition of Mr. Klancko's "35 years of distinguished service to the materials industry of Connecticut as a manager, technical professional, and educator."

Alan G. Klopfenstein (B.S. Mechanical Engineering '63) was a principal co-editor of the Microelectronics Packaging Handbook, 2nd edition (1997), a three-book set. He retired from IBM in 1993, then served as president of AGK Enterprises in NY before becoming a ski instructor at Keystone Resort, Colorado.

Kamal G. Nainani (M.S. Chemical Engineering '98) has joined Corning Incorporated as a Senior Development Engineer with the Process and Product Development Group in the Optical Fiber division.

Patrick O'Leary (B.S. Civil Engineering '89) was recently promoted to associate at Vanasse Hangen Brustlin, Inc., Middletown, CT. The company is an engineering, planning and applied sciences firm.

Scott Thompson (B.S. Chemical Engineering '99, M.S. MMAT '01) has joined Carpenter Advanced Ceramics in Auburn, CA as a ceramics engineer. Scott will be responsible for product manufacturing utilizing spray drying technology.
Once again, our faculty members have been recognized internationally for their academic prowess; contributions in their field of expertise; ingenuity and excellence in teaching; and in garnering research funding from government and corporate sources.

They continue to provide an outstanding intellectual resource for our students, state residents, business and industry, and the New England region.
Honorary Member, Editorial Advisory Board, International Journal of Heat and Mass Transfer, 1997-present
Honorary Member, Editorial Advisory Board, Communications in Heat and Mass Transfer, 1997-present
Editorial Board, Journal of Applied Thermal Engineering, 1996-present

GEORGE E. HOAG
(Civil & Environmental Engineering)
Editorial Advisory Board, Journal of Soil Contamination, 1996-present

BAHRAM J. AVIDI
(Electrical & Computer Engineering)
Topical Editor, IEEE Press/SPIE Press Book Series on Optical Imaging, 1997-present
Topical Editor, Journal of Optical Engineering, 1998-present
Topical Editor, Optical Signal and Image Processing, Marcel-Dekker, 1998-present

ERIC J. ORLAND
(Mechanical Engineering)

THEO KATTAMIS
(Metallurgy & Materials Engineering)
Board of Review, Metallurgical Transactions, 1976-1997

KAZEM KAZEROUNIAN
(Mechanical Engineering)
Associate Technical Editor, ASME Journal of Mechanical Design, 1995-1999
Editorial Advisory Board, ASME Applied Mechanics Reviews, 1995-present

LEE LANGSTON
(Mechanical Engineering)
Associate Editor, ASME Journal of Turbomachinery, 1991-1993
Editor-in-Chief, ASME Journal of Engineering for Gas Turbines and Power, 2001-2005

JOHN W. LEONARD
(Civil & Environmental Engineering)
Associate Editor, Ocean Engineering, 1989-present

PETER LUH
(Electrical & Computer Engineering)
Editor-in-Chief, IEEE Transactions on Robotics and Automation, 1999-2004
Associate Editor, Discrete Event Dynamic Systems, 1999-present
Associate Editor, International Journal of Intelligent Control and Systems, 1995-present
Associate Editor, IIE Transactions on Design and Manufacturing, 1997-present

Technical/Associate Editor, IEEE Transactions on Robotics and Automation, 1990-1994
Associate Editor, IEEE Transactions on Automatic Control, 1989-1991

ROBERT MAGNUSSON
(Electrical & Computer Engineering)
Topical Editor, Applied Optics – Optical Technology & Biomedical Optics

RAMESH B. MALLA
(Civil & Environmental Engineering)
Editorial Board, ASCE Journal of Aerospace Engineering, 1991-present
Editorial Board, International Journal of Space Structures, 1999-present

HARRIS MARCUS
(Metallurgy & Materials Engineering)
Editorial Board, Rapid Prototyping Journal, 1995-present

RUSK Y. MASH
(Civil & Environmental Engineering)
Editor, The Point Research & Innovation Observer

PATRICK T. MATHER
(Chemical Engineering)
Advisory Board, Polymer Engineering & Science, 1998-present

ROBERT MCCARTNEY
(Computer Science & Engineering)
Editorial Board, Journal of Computer Science Education, 1998-present

JOHN E. MORRAL
(Metallurgy & Materials Engineering)
Deputy Editor, Journal of Phase Equilibria, 1995-present
Associate Editor, Journal of Mining and Metallurgy, 1997-present
Key Reader, Metallurgical and Materials Transactions A, 1974-1998

ERLING MURTHA-SMITH
(Civil & Environmental Engineering)
Editorial Board, International Journal of Space Structures, 1989-present

NIKOLAOS NIKOLADIS
(Civil & Environmental Engineering)
Associate Editor, Ground Water Journal, 1995-1998
Editorial Board, Journal of Mediterranean Marine Science

FRED L. OGDEN
(Civil & Environmental Engineering)
Associate Editor, ASCE Journal of Irrigation and Drainage Engineering, 1996-1999

NEJAT OLGAC
(Mechanical Engineering)
Associate Editor, ASME Journal of Dynamic Systems, Measurement and Control, 1997-2000
Section Editor, CRC Handbook on Mechanical Systems Design, Section on Vibration Suppression

NITIN P. PATDURE
(Metallurgy & Materials Engineering)
Associate Editor, Journal of the American Ceramic Society, 1999-present

KRISHNA PATTIPATI
(Electrical & Computer Engineering)

RANGA PITCHUMANI
(Mechanical Engineering)

EUGENE SANTOS, J. R.
(Computer Science & Engineering)
Associate Editor, IEEE Transactions on Systems, Man and Cybernetics: Part B, 1999-present

LEON L. SHAW
(Metallurgy & Materials Engineering)
Guest Editor, Materials Science and Engineering

MONTGOMERY T. SHAW
(Computer Science & Engineering)

BARTH F. SMETS
(Civil & Environmental Engineering)
Editorial Board, Biodegradation

ALEX THOMASIAN
(Computer Science & Engineering)
Associate Editor, IEEE Transactions on Parallel & Distributed Systems, 1995-1998

T.C. TING
(Computer Science & Engineering)
Editor, International Journal on Computer Standards and Interfaces, 1980-present
Editor, International Journal on Data and Knowledge Systems, 1981-present

ROBERT A. WEISS
(Chemical Engineering)
Editor-in-Chief, Polymer Engineering and Science, 1997-present
Associate Editor, Polymer Engineering and Science, 1987-1997
Editor-in-Chief, Polymer Composites, 1997-present
Associate Editor, Polymer Composites, 1987-1997
International Advisory Board, Polymers and Polymer Composites, 1996-present

PETER WILLETT
(Electrical & Computer Engineering)
Associate Editor, IEEE Transactions on Systems, Man, and Cybernetics, 1998-2001
Associate Editor, IEEE Transactions on Aerospace and Electronic Systems, 1998-2001
Major Young Investigator Federal Honors

S. PAMIR ALPAY
(Metallurgy & Materials Engineering)
CAREER Award, National Science Foundation, 2001

EMMANOULI N. ANAGNOSTOU
(Civil & Environmental Engineering)
Young Investigator Award, National Aeronautics & Space Administration, 1999

THEODORE BERGMAN
(Mechnical Engineering)
Presidential Young Investigator, National Science Foundation, 1986

WILSON K.S. CHIU
(Mechnical Engineering)
CAREER Award, National Science Foundation, 2001
Young Investigator Award, Office of Naval Research, 2001

DINA Q. GOLDIN
(Computer Science & Engineering)
CAREER Award, National Science Foundation, 1999

JOSEPH J. HELBLE
(Chemical Engineering)
CAREER Award, National Science Foundation, 1998

BAHRAM J. AVIDI
(Electrical Engineering)
Presidential Young Investigator, National Science Foundation, 1998

PATRICK T. MATHER
(Chemical Engineering)
CAREER Award, National Science Foundation, 2001

KEVIN D. MURPHY
(Mechnical Engineering)
CAREER Award, National Science Foundation, 1996

FRED L. OGDEN
(Civil & Environmental Engineering)
Young Investigator Award, U.S. Army Research Office, 1996-2001

NITIN PADTURE
(Metallurgy & Materials Engineering)
Young Investigator Award, Office of Naval Research, 1996

RANGA PITCHUMANI
(Mechnical Engineering)
Young Investigator Award, Office of Naval Research, 1996

ALEXANDER RUSSELL
(Computer Science & Engineering)
CAREER Award, National Science Foundation, 2001

ALEXANDER SHVARTSMAN
(Computer Science & Engineering)
CAREER Award, National Science Foundation, 2000

BARTH F. SMETS
(Civil & Environmental Engineering)
CAREER Award, National Science Foundation, 1997

THOMAS K. WOOD
(Chemical Engineering)
Research Initiation Award, National Science Foundation, 1992
Young Investigator Award, U.S. Army Research Office, 1992

Fellows: Major Professional Societies

MARK AINDOW
(Metallurgy & Materials Engineering)
Fellow, The Institute of Physics (UK)

KEITH BARKER
(Computer Science & Engineering)
Fellow, Institution of Electrical Engineers (IEEE) UK

YAakov Bar-Shalom
(Electrical & Computer Engineering)
Fellow, The Institute of Electrical and Electronics Engineers (IEEE)

JAMES P. BELL
(Chemical Engineering)
Patrick Fellow, Adhesion Society

THEODORE BERGMAN
(Mechnical Engineering)
Fellow of American Society of Mechanical Engineers

STEPHEN BOGGS
(Electrical & Computer Engineering)
Fellow, The Institute of Electrical and Electronics Engineering

HAROLD BRODY
(Metallurgy & Materials Engineering)
Fellow, ASM International

BAKI CETEGEN
(Mechnical Engineering)
Fellow of American Society of Mechanical Engineers

PETER CHEO
(Electrical & Computer Engineering)
Fellow, ASM International

ROBERT COUGHLIN
(Metallurgy & Materials Engineering)
Fellow, American Society of Mechanical Engineers

B. C. NGUYEN
(Chemical Engineering)
Fellow, American Institute of Chemical Engineers

KAZEM KAZEROUNIAN
(Mechnical Engineering)
Fellow, American Society of Mechanical Engineers

T.C. TING
(Computer Science & Engineering)
Fellow, Association of Computing Machinery

HOWARD EPSTEIN
(Civil & Environmental Engineering)
Fellow, American Society of Civil Engineers

AMIR FAGHRI
(Mechnical Engineering)
Fellow, American Society of Mechanical Engineers

BERNHARD H. HABERMANN
(Chemical Engineering)
Fellow, American Chemical Society

JAMES P. BELL
(Chemical Engineering)
Fellow, American Society of Chemical Engineers

ROBERT J. ORGAN
(Computer Science & Engineering)
Fellow, ACM

N. G. STANLEY
(Chemical Engineering)
Fellow, American Institute of Chemical Engineers

J. W. MILLER
(Chemical Engineering)
Fellow, American Chemical Society

J. W. MILLER
(Chemical Engineering)
Fellow, American Chemical Society

T.C. TING
(Computer Science & Engineering)
Fellow, Computing Research Association
We are grateful to Dean Amir Faghri for his inspiring leadership and congratulate him for making the year of the 100th anniversary of engineering instruction at UConn so successful. The School has received strong support from corporate and government benefactors; more than 300 merit-based scholarships were awarded to engineering students; and freshmen enrollments have dramatically increased. As Alumni, we also must support our School in providing learning opportunities for engineering students through endowments, research collaboration, and cooperative education experiences. Certainly, we appreciate the importance of hiring the graduates of our alma mater.

We are committed to establishing a strong Alumni network that actively supports new graduates in obtaining the best job opportunities and effectively integrating themselves into the workplace, that recognizes and capitalizes on the skills and expertise of our fellow Alumni, and that helps the School of Engineering achieve its highest goals and objectives in education and research. Together, we can make a significant difference to our alma mater and newly emerging graduates.

We are committed to establishing a strong Alumni network that actively supports new graduates in obtaining the best job opportunities and effectively integrating themselves into the workplace, that recognizes and capitalizes on the skills and expertise of our fellow Alumni, and that helps the School of Engineering achieve its highest goals and objectives in education and research. Together, we can make a significant difference to our alma mater and newly emerging graduates.

We are grateful to Dean Amir Faghri for his inspiring leadership and congratulate him for making the year of the 100th anniversary of engineering instruction at UConn so successful. The School has received strong support from corporate and government benefactors; more than 300 merit-based scholarships were awarded to engineering students; and freshmen enrollments have dramatically increased. As Alumni, we also must support our School in providing learning opportunities for engineering students through endowments, research collaboration, and cooperative education experiences. Certainly, we appreciate the importance of hiring the graduates of our alma mater.

We are committed to establishing a strong Alumni network that actively supports new graduates in obtaining the best job opportunities and effectively integrating themselves into the workplace, that recognizes and capitalizes on the skills and expertise of our fellow Alumni, and that helps the School of Engineering achieve its highest goals and objectives in education and research. Together, we can make a significant difference to our alma mater and newly emerging graduates.

We are grateful to Dean Amir Faghri for his inspiring leadership and congratulate him for making the year of the 100th anniversary of engineering instruction at UConn so successful. The School has received strong support from corporate and government benefactors; more than 300 merit-based scholarships were awarded to engineering students; and freshmen enrollments have dramatically increased. As Alumni, we also must support our School in providing learning opportunities for engineering students through endowments, research collaboration, and cooperative education experiences. Certainly, we appreciate the importance of hiring the graduates of our alma mater.

We are committed to establishing a strong Alumni network that actively supports new graduates in obtaining the best job opportunities and effectively integrating themselves into the workplace, that recognizes and capitalizes on the skills and expertise of our fellow Alumni, and that helps the School of Engineering achieve its highest goals and objectives in education and research. Together, we can make a significant difference to our alma mater and newly emerging graduates.

We are grateful to Dean Amir Faghri for his inspiring leadership and congratulate him for making the year of the 100th anniversary of engineering instruction at UConn so successful. The School has received strong support from corporate and government benefactors; more than 300 merit-based scholarships were awarded to engineering students; and freshmen enrollments have dramatically increased. As Alumni, we also must support our School in providing learning opportunities for engineering students through endowments, research collaboration, and cooperative education experiences. Certainly, we appreciate the importance of hiring the graduates of our alma mater.

We are committed to establishing a strong Alumni network that actively supports new graduates in obtaining the best job opportunities and effectively integrating themselves into the workplace, that recognizes and capitalizes on the skills and expertise of our fellow Alumni, and that helps the School of Engineering achieve its highest goals and objectives in education and research. Together, we can make a significant difference to our alma mater and newly emerging graduates.
New Research Agreement for Engineering and Pratt & Whitney

In October, the School of Engineering and Pratt & Whitney signed a comprehensive umbrella agreement covering all legal aspects of collaborative research contracts developed during the next three years, including intellectual property and liability issues. The agreement is the culmination of lengthy discussions and will facilitate future research interactions between UConn engineering faculty and Pratt & Whitney engineers. Included are details concerning all aspects of the development, ownership and licensing of potential new technologies. A number of research areas of mutual interest have been targeted for joint research collaboration and will commence soon.

Traditionally, agreements concerning intellectual property and liability issues have been a major impediment to partnerships between universities and corporations: this new umbrella agreement will pave the road for further and expanded research collaborations between engineering faculty and industry in the future. The School of Engineering is working with other major Connecticut corporations to cultivate similar partnerships, as well. Academic-industry partnerships yield symbiotic relationships that benefit not merely academic researchers and their industry partners but also university students, and state residents through new products, technological spinoffs and economic stimuli. As such, the new umbrella agreement is an important milestone for the School that will afford greater research opportunities for the future.

Dominion Nuclear continued

Mr. Price noted that “the development of the next generation of nuclear professionals is considered by several industry experts to be one of the biggest challenges that the industry is facing. Investment in higher education at UConn through the Dominion/Millstone Energy Scholarship Program is one element of Dominion’s planning to ensure continued availability of highly qualified personnel to support the safe and efficient operation of our Connecticut nuclear plants.”

“The Dominion Nuclear scholarship program,” commented Dean of Engineering Amir Faghri, “clearly demonstrates that Connecticut industry acknowledges and supports the role of the School of Engineering and is committed to providing substantive and lasting support.”