

# SPECTRUM

TODAY'S EDITION  
See page 3 for  
more information on  
the Board of Visitors.

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

<http://www.spectrum.vt.edu>

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## Fall Commencement set for December 17

By Susan Dickerson

Approximately 2,300 undergraduate and graduate students will be honored as Virginia Tech holds its 2004 Fall Commencement ceremonies Friday, Dec. 17. The university ceremony for undergraduate students will begin at 11 a.m., and the Graduate School ceremony will start at 3 p.m.

President Charles Steger will preside over both ceremonies. Diane Zahm, associate professor of urban affairs and planning in the College of Architecture and Urban Studies, will deliver the keynote address at the University Commencement ceremony. Peter Eyre, professor and former dean of the Virginia-Maryland Regional College of Veterinary Medicine, will speak at the Graduate School ceremony.

It is anticipated that bachelor's degrees will be conferred to 1,054 students

completing fall semester classes and 522 students completing summer school classes. At the Graduate School Ceremony, 812 students are expected to receive master's degrees, 34 are expected to receive Ed.D.'s, and 209 are expected to receive Ph.D.'s.

Zahm's academic and professional background includes both community development and criminal-justice experience. Her most notable experiences include conducting crime prevention through environmental design training for a variety of communities and organizations, and publishing, *Designing Safer Communities: A Crime Prevention through Environmental Design Handbook*. Zahm was the 1993 recipient of the G. Paul Sylvestre Award given by the U.S. Department of Justice, Bureau of Justice Statistics, for outstanding achievement in advancing criminal-justice statistics in the states.

Eyre is the former dean of the Virginia-Maryland College of Veterinary Medicine (VMRCVM), and a professor in the department of biomedical sciences and pathobiology. Eyre has initiated outreach partnerships with the natural-sciences program at Virginia Tech and continues to assist the college in advancing strategic initiatives. Eyre is the recipient of the Norden Award for Distinguished Teaching, the Sigma Psi Award for Excellence in Research, and the John N. Dalton award for distinguished service.

Tickets are not required for either ceremony. Families and guests should plan to arrive early to be seated for student and faculty processions. For more information on the Fall Commencement ceremonies, go to website <http://www.vt.edu/academics/Fall04/Commence.html>.

## University signs memorandum for new alliance

By Susan Trulove

President Charles Steger announced at the university's Board of Visitors meeting that the university and The Institute for Genomic Research (TIGR) of Rockville, Md., have signed a memorandum of understanding. The new alliance will enrich the university's basic research capacity in the life sciences and enhance TIGR's computational and experimental capacity, according to Steger and TIGR President and Director Claire M. Fraser.

The agreement anticipates joint research projects, shared use of related facilities, adjunct faculty appointments, and opportunities for students to participate in research. Building on the strengths of both institutions, it is anticipated that the focus of the joint research projects will be in the areas of microbial, plant, and animal genomics and functional genomics, which have many applications to human health, agriculture, and biodefense.

"This agreement between a leading research university and a leading research organization supports Virginia's biotechnology initiative," Governor Mark Warner said.

"This is a natural partnership that will enhance the achievements of both the university's and the institute's researchers," said Brad Fenwick, vice president for research at Virginia Tech. "By partnering, we will be able to offer research sponsors more resources and capacity to produce knowledge in a cost-effective and timely fashion. And, of course, combining the excellent skills of these two

(See MEMORANDUM on 3)

## NSF funds aimed at increasing number of engineering grads

By Liz Crumbley

As part of an effort aimed at increasing the number of engineering graduates in the United States, which is experiencing a significant decline in new engineers, the National Science Foundation (NSF) Science and Technology Expansion Program has awarded a \$2 million, five-year grant to the College of Engineering to expand its undergraduate mentoring and retention programs.

Target students for the project will be engineering freshmen and transfer students, said Bevelee Watford, the College of Engineering's associate dean for academic affairs and director of the Center for the Enhancement of Engineering Diversity.

"The freshman-to-sophomore transition is critical," said Watford, who is co-principal investigator for the NSF grant. "The majority of drop-outs among engineering undergraduates occur at this stage, but most students who make a successful transition to sophomore year will graduate."

Watford and Jean Kampe of the Department of Engineering Education will oversee three new programs to be funded by the NSF grant. All three are based on existing programs, developed over the years by Watford and her staff, that in the past have helped improve retention and graduation rates for under-represented engineering students.

The Student Transition Program will offer mentoring and academic development to 100

incoming freshmen for five weeks during the summer before they enter Virginia Tech. Faculty members from the engineering education, chemistry, and mathematics departments will teach introductory courses and upper-class students will provide mentoring on academic skills and university life.

Academic Hispanic OutReach Alliance (AHORA), Black Engineering Support Teams (BEST) and Women in Engineering Support Teams (WEST)—three existing programs originally developed for under-represented engineering students at Virginia Tech—will be expanded to assist 400 freshmen and 60 transfer students, most of whom come to the

(See NSF on 3)

## BSE, Theatre Arts, History receive Exemplary Department Awards

By Clara B. Cox, Jean Elliott, and Lori Greiner

The departments of Biological Systems Engineering (BSE), Theatre Arts, and History received the university's 2004 Exemplary Department Awards during ceremonies on Nov. 4.

"These departments were recognized for their work in effectively linking research and scholarship with teaching, with particular concentration on innovative undergraduate programs," said Ron Daniel, associate provost for undergraduate education, who oversees the awards program.

President Charles Steger and Provost Mark McNamee presented BSE with \$10,000 and Theatre Arts and History with \$5,000 each. Each department also received a plaque.

(See AWARDS on 4)



President Charles W. Steger, left, and Provost Mark McNamee, right, presented Exemplary Department Awards to the departments of Biological Systems Engineering, History, and Theatre Arts. Accepting the awards were, left to right holding plaques, Saied Mostaghimi, head of BSE; Daniel B. Thorp, chair of History; and Patricia Raun, head of Theatre Arts. (J. McCormick)

## Sloan Foundation funds new forest industries center

By Sookhan Ho and Lynn Davis

Governor Mark R. Warner has announced the opening of a new Forest Industries Center research facility at Virginia Tech. The center was established with funding from the Sloan Foundation, forest-industry organizations, and Virginia Tech, and seeks to promote the global competitiveness and sustainable growth of America's diverse forest industries. The center is located on campus and began its operations this week.

"The center's formation is timely, in view of the increasingly stiff competition faced by America's forest industries in world markets," Warner said. "We need to act now to become more competitive in the global marketplace. This new center brings together many diverse talents to support

(See SLOAN on 4)

# ACTIVITIES

(Editor's note: For timely and expanded events information, go to the Virginia Tech Events Calendar at <http://www.calendar.vt.edu/main.php>.)

## EVENTS

### Wednesday, 24

Half-day Thanksgiving Holiday for Faculty and Staff Members.

"With Good Reason," 7:30 p.m., WVTF.

### Thursday, 25

Thanksgiving Holiday for Faculty and Staff Members.

### Friday, 26

Thanksgiving Holiday for Faculty and Staff Members.

### Saturday, 27

Football, 1 p.m., Lane Stadium: UVA.

### Monday, 29

AIDS Awareness Week Begins.

## DECEMBER

### Wednesday, 1

Pay Date for Faculty and Staff Members.

"With Good Reason," 7:30 p.m., WVTF.

### Thursday, 2

Theatre Arts Premiere, 8 p.m., Squires Haymarket Theatre: *God Favors the Predator*.

### Friday, 3

Theatre Arts Premiere, 8 p.m., Squires Haymarket Theatre: *God Favors the Predator*.

## SEMINARS

### Friday, 19

MCBB, 12:20 to 1:10 p.m., 102 Fralin: William Cheadle, University of Louisville.

Geosciences, 3:30 p.m., 4069 Derring: Johnnie Moore, University of Montana.

## DECEMBER

### Wednesday, 1

ESM, 4 to 5 p.m., 110 Randolph: M. Donnelly, Naval Surface Warfare Center.

### Thursday, 2

Statistics, 3:45 p.m., 409 Hutcheson: Robert Stephens.

### Friday, 3

MCBB, 12:20 to 1:10 p.m., 102 Fralin: Gregory Ordway, University of Mississippi Medical Center.

Geosciences, 3:30 p.m., 4069 Derring: Susan Kidwell, University of Chicago.

## BULLETINS

### PeopleAdmin training sessions set

All faculty searches are now handled through the online application process, PeopleAdmin. All jobs are currently posted at <http://www.jobs.vt.edu> and applicants will now be required to apply for any faculty opening by submitting their application and attaching required documents, such a resume and cover letter.

The training session will show how to manage searches using PeopleAdmin and to become more familiar with features that are available for posting position and handling applications. Remaining training dates are Tuesday, Nov. 30 from 1:30 until 3:30 p.m., and Friday, Dec. 3 until 8:30 until 10:30 a.m. The location for all classes is room 153 Southgate Center.

It is important to sign up in advance by sending a note to [hriuser@vt.edu](mailto:hriuser@vt.edu) so that appropriate authorization can be established before the training session.

### Basketball parking changes noted

There are new parking changes that will take place for all home basketball game (both men and women games). The Virginia Tech Athletics Department anticipates an increase in attendance of home basketball games with the transition to the ACC. The effected lots and dates for all home games are listed below.

For weekday games, the following lots will be restricted to no parking at 5:30 p.m. on the day of the game and all vehicles must be removed from these lots by 5:30 p.m. or be subject to towing: Coliseum lot, Track/Field House lot, and Tennis Court lot. For weekend games these three lots (Coliseum lot, Track/Field House lot, and Tennis Court lot) will be restricted the day before the game to no parking after 5:30 p.m. and all vehicles must be removed from these lots by midnight or be subject to towing. Signs will be posted at the entrance to the three effected lots the day before the game.

Public parking for home games will be located in Litton-Reaves lot, the Stadium lot, and in the large fenced resident parking lot off Duck Pond Drive. Those attending the games should park in the large section of the cage closest to the Duck Pond. Handicap parking will be available in Coliseum lot. Public RV's must park in the Duck Pond lot.

The remaining home basketball game dates are Nov. 19, 23; Dec. 2, 4, 11, 12, 19, 27, 28, 29, 30; Jan. 2, 6, 12, 15, 17, 19, 24, 27, 31; Feb. 2, 5, 13, 16, 17, 19, 27, 28; and March 5.

For more information, call Parking Services at 1-3200 or, after regular business hours, the University Police Department at 1-6411. Information is also available at [www.ot.vt.edu](http://www.ot.vt.edu).

### Program to boost computing security

To advance the security and efficiency of the university computing community, the Virginia Tech Microsoft Implementation Group (VTmig) has released the SafetyNetv1.0 program, allowing system administrators to scan individual and groups of computers for security weaknesses.

The SafetyNetv1.0 program was released to the public, free of charge, as an open source, web-based program, meaning system administrators, developers, and security auditors now have access to the Windows 2003 Server source code. The release of the source code enables authorized users to modify, improve upon, and/or redistribute the program coding to suit their specific needs.

A feature of the SafetyNet program allows system administrators to incorporate third-party scanning tools of their choosing into a user-friendly web page format. End-users can log into the SafetyNet web page to perform a security scan of their system and review the results. In addition, Virginia Tech network liaisons may perform a security scan of their entire group of machines.

The SafetyNet programs are currently serving the university computing community on VTmig's departmental servers, pending turnover to the VT Security Office. Anyone with a Hokies username and password can use the service at <https://safetynet.w2k.vt.edu/login.php>.

For more information on VTmig or to download the new SafetyNet v1.0 software, go to the VTmig website at <http://vtmig.w2k.vt.edu/main.htm>.

### Women's Center moves

The Women's Center at Virginia Tech has moved from Price House into its new offices at 206 Washington Street, the former location of the Real Estate Management and Debt Management offices, between Draper Road and Otey Street.

The Women's Center has been located in Price House at the corner of Barger and Stanger Streets for nearly a decade. Price House is scheduled to be demolished on November 19 to make way for the construction of a laboratory building for the Institute of Critical Technologies and Sciences.

A division of the Office of the Provost, the Women's Center, which employs seven professional staff members and is assisted by more than 45 student staff volunteers, works with Virginia Tech faculty and staff members and students on a variety of issues associated with gender. The center houses the university's violence-response services and works closely with the colleges and administrative units to educate the university community on women's and gender issues. Once an addition to the Washington Street location is completed, the Women's Center will continue to accommodate classes, meetings, and seminars, as well as offer an extensive and accessible lending library.

For more information about the Women's Center, contact Director Ellen Plummer at 1-7806 or [eplummer@vt.edu](mailto:eplummer@vt.edu), or go to the center's website at <http://www.womenscenter.vt.edu/>.

### CESA program proposals sought

Ronald Daniel, academic director for the Center for European Studies and Architecture (CESA) and associate provost for undergraduate education, is seeking program proposals for the coming summer at CESA. Daniel would like to hear from those who are involved (or have been involved) in programs at CESA, as well as those who are interested in becoming involved. There is a December 1 deadline for summer programs.

Applications may be obtained by contacting Karen Strickler at 1-3341 or [kstrickler@vt.edu](mailto:kstrickler@vt.edu).

### Housing Office offers help

The Off Campus Housing Office at Virginia Tech currently has a program designed to help new and visiting faculty/staff members find permanent and short-term housing in the New River Valley Area. This program also provides an outlet for faculty and staff members to advertise housing availability or housing needs. The program was designed to make the rental process easier for faculty and staff members.

For more information about the Faculty and staff program, visit website [www.vtoch.uusa.vt.edu](http://www.vtoch.uusa.vt.edu), call 1-3346, or e-mail [vtoch@vt.edu](mailto:vtoch@vt.edu).

### Appropriate holiday-season observances

The Offices of Vice President for Multicultural Affairs, Vice President for Student Affairs, and Equal Opportunity remind members of the university community as the holiday season approaches to be mindful that not all faculty and staff members, students, and visitors share and observe the same holiday traditions. Try to make choices that do not reflect a single way of commemorating the general spirit of this season. For example, displays might be broadened to include other holidays that may be observed at this time of year, themes that reflect a seasonal motif rather than one associated with a particular religion might be chosen.

It is considerate to plan office or departmental parties, receptions, or open houses using terms that include rather than exclude, such as inviting people to celebrate the holiday season, the winter break, a season of lights or peace. This is a time for joy, celebration, and community, and it is thoughtful to demonstrate that by designing events that unite rather than divide. University-related observances should welcome all members of the university community who wish to share in the collegial spirit.

As we decorate and celebrate in public areas, we want to encourage awareness and sensitivity to our diverse population. [bdixon@vt.edu](mailto:bdixon@vt.edu).

## Engineering appoints director of international programs

By Karen Gilbert

Sedki Riad, a professor of electrical and computer engineering, is the new director of international programs in the College of Engineering.

"The hope and intent in establishing this position is to bring unity and organization to our efforts in the international arena in keeping with strategic goals of the university," said the College of Engineering's Dean Hassan Aref in announcing the new director.

With this new administrative appointment, Riad will be providing leadership in establishing the vision and mission of international programs for the college. He received his bachelor's and master's degrees in electrical engineering from the Cairo University of Egypt in 1966 and 1972, respectively. Riad earned his Ph.D. at the University of Toledo in 1976. He also is the director of the Time Domain and RF Measurement Laboratory.

"The creation of this position shows the high level of importance the college places on international programs," Aref said. As the new director, Riad has been given a broad range of responsibilities in an effort to maximize the benefits of existing international programs within the college and creating new international opportunities.

Riad will begin his assignment by taking inventory of the wide variety of international programs offered to undergraduate and graduate engineering students and then coordinating the marketing of all of these programs for maximum effectiveness.

It is anticipated that the creation of this position will foster increased collaborative efforts with international institutions to enhance research and educational opportunities in engineering. Riad will be working closely with engineering faculty members and deans to strengthen the international curriculum and related extra-curricular educational experiences for students. One of the new offerings coordinated by Riad will be an informational seminar for students on international educational opportunities, which will include student presentations about international experiences.

Riad will play an important role in originating proposals for funded research and development projects. This will be accomplished by identifying and initiating relationships with regional, national, and international agencies, universities, foundations, and research institutes which support international education research.

## Visitors handle research topics at quarterly meeting

By Larry Hincker

At its quarterly meeting Nov. 7-8, the Board of Visitors reviewed a teaching-and-research agreement between the Virginia-Maryland Regional College of Veterinary Medicine and the University of Maryland, Baltimore. The collaboration agreement paves the way for joint research projects in biomedical and public health research, faculty and student exchanges, and the development of dual-degree programs that would be mutually beneficial to both institutions. The agreement will take effect next year.

During the meeting, President Charles Steger announced the university and The Institute for Genomic Research (TIGR) of Rockville, Md., have signed a memorandum of understanding. The new alliance will enrich the university's basic research capacity in the life sciences and enhance TIGR's computational and experimental capacity. (See story on page 1)

Steger also issued a formal statement condemning the hate crime that occurred on campus this fall and stating the university's resolve to address such acts. The statement can be found at <http://www.president.vt.edu/statements/>.

The board also reviewed and approved financial performance reports, approved a resolution to execute banking-and-financial-

security agreements and reviewed the most recent enrollment report.

The board put forth two resolutions to honor two university alumni killed in military action in Iraq. The resolutions honored First Lieutenant Jeffrey J. Kaylor, a 2001 graduate who died April 7, 2003 and First Lieutenant Timothy E. Price, a 2001 graduate who was killed Sept. 7

The board also approved the naming of the Harry and Patsy Williams Masters Studio in the proposed Bishop-Favrao Hall, the future home of the Department of Building Construction in the College of Architecture and Urban Studies; and the Ferguson Enterprises Interview Reception Area in the new Career Services Building.

In addition, Thomas Novak, professor and head of the Department of Mining and Mineral Engineering in the College of Science, was named the Charles T. Holland professor and Nathaniel A. White, Randolph professor of equine surgery in the Virginia-Maryland Regional College of Veterinary Medicine, was named the Jean Ellen Shehan professor and director of the Marion DuPont Scott Equine Medical Center in Leesburg. S.K. De Datta was honored with the Clifton Garvin Fellowship Award and five university professors were honored with emeritus status.

The next meeting of the full Board of Visitors will be March 13-14.

## MEMORANDUM

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institutions allows us to address today's complex problems in a way that is difficult to match worldwide."

Steger said, "The partnership with TIGR also greatly expands opportunities for students to work on critical research applications in the life sciences. The success of the graduate-education program depends upon students having an array of research opportunities."

Founded in 1992, TIGR ([www.tigr.org](http://www.tigr.org)) is

a not-for-profit research institute whose primary research interests are in structural, functional, and comparative analysis of genomes and gene products from a wide variety of organisms. TIGR scientists have completed the genome sequence of many disease-causing microbes, including those that cause cholera, tuberculosis, malaria, meningitis, syphilis, Lyme disease, anthrax, Q Fever, ulcers, and African sleeping sickness, as well as a number of environmentally important microorganisms. TIGR also played a key role in sequencing the first plant genome, *Arabidopsis thaliana*, as well as deciphering the genome sequence of rice.

TIGR's bioinformatics department is creating and maintaining gene databases and has produced new software for finding genes in bacteria, plants, parasites, and other organisms, as well as software for identifying other important biological features of genomes. TIGR also operates two centers under contract with the National Institute of Allergy and Infectious Diseases: the Pathogen Functional Genomics Resource Center, which provides scientists with centralized resources needed to conduct functional genomics studies on a variety of pathogens; and a national Bioinformatics Resource Center (BRC), one of eight for the study of pathogens that are considered biothreat agents or are associated with emerging or re-emerging infectious diseases. Virginia Bioinformatics Institute at

Virginia Tech and its partners also operate one of the eight BRC's.

"There are clearly many areas of mutual interest and complementary capabilities at Virginia Tech and TIGR," said Fraser, who is a professor of pharmacology and microbiology at the George Washington University School of Medicine, as well as TIGR's president. "We are excited about formalizing this working relationship. In addition to the Virginia Bioinformatics Institute, we look forward to working with Virginia Tech's considerable capacity in translational biology and high-end computing that is important for molecular

biology. Both institutions' ground-breaking development of genomics and informatics tools for the life sciences is an example of how this cooperative effort can provide wider benefits for multiple scientific communities."

Bruno Sobral director of the Virginia Bioinformatics Institute (VBI) ([www.vbi.vt.edu](http://www.vbi.vt.edu)) said, "This new development provides an opportunity to continue to expand collaborations between VBI and TIGR, such as in the newly awarded Bioinformatics Resource Centers, and to thereby move more rapidly and cohesively in providing solutions to the country's infectious disease and biodefense response infrastructure."

## CORRECTION

**The Oct. 22 insert *New Faculty at Virginia Tech* incorrectly listed Michael Alley and Marie Paretti with the College of Engineering, Department of Engineering Education, as instructors. Alley's title is associate professor and Paretti's title is assistant professor.**



VIRGINIA POLYTECHNIC INSTITUTE  
AND STATE UNIVERSITY

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Editor

John Ashby, 1-6961

News Bureau Manager  
Susan Dickerson 1-8508

Production Manager  
Melinda Shaver, 1-8524

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## NSF

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university from community colleges. Upper-class mentors will help the freshmen and transfer students learn how to cope and succeed during their first semester in engineering.

The third program, "Galileo," will offer a residential learning environment to 200 freshmen male students during their first semester. Galileo is based on Hypatia—the College of Engineering's residential program for first-year women in engineering, Watford said. Galileo will be a collaborative effort of engineering, other academic departments including chemistry and mathematics, and the university's Housing and Dining Services.

In addition, the engineering college will continue to offer numerous existing mentoring, tutoring, academic enrichment, and scholarship programs through the Academic Affairs Office and Center for the Enhancement of Engineering Diversity.

Currently, Watford said, the Virginia Tech College of Engineering's retention rate for undergraduate students through graduation is 52 percent. Watford and Kampe have high expectations for the new NSF-funded programs—their ultimate goal is to increase freshman and transfer-student retention into the second year to 85 percent.

"This should translate into about 300 more Virginia Tech engineering graduates annually," Watford said.

## EMPLOYMENT

**For more information on all faculty and classified-staff positions, see [www.jobs.vt.edu](http://www.jobs.vt.edu).**

### INSTRUCTIONAL

**Department of Interdisciplinary Studies. Assistant Professor/Associate Professor. Humanities.**

**Computer Sciences. Open Rank Tenure Track Position in Networking and Systems.**

**Political Science. Senior Assistant or Associate Professor. Director of International Studies.**

**Political Science. Instructor. Communication Studies. Assistant Professor. Communication.**

**Interdisciplinary Studies. Women's Studies. Associate Professor/Professor.**

**Sociology Department. Assistant Professor.**

**Biological Systems Engineering. Assistant Professor. Bio-based Value-Added Products (3 positions)**

**Accounting and Information Systems. Instructor.**

**NON-INSTRUCTIONAL**  
**Virginia Bioinformatics Institute. Head Curator.**

**Virginia Bioinformatics Institute. Scientific Research Designer.**

**Virginia Bioinformatics Institute. Information Systems Developer—LIMS.**

**Athletics Department. Assistant Golf Coach.**

**Forestry Department. Research Associate—Silviculture. Forest Soils and Tree Nutrition.**

## IN OTHER NEWS

### NSF grant supports Toal's research in Bosnia

By Barbara Micala

The United Nations recently reported that a landmark number of 1 million refugees have returned to their houses since the Dayton Peace Accords brought the war in Bosnia to an end in 1995.

During the past few years, Gerard Toal, professor of government and international affairs at the Virginia Tech Alexandria campus, has been at the forefront of research on the returns process in Bosnia-Herzegovina. Toal's research investigates the contradiction in the Dayton peace treaty that pledged to reverse ethnic cleansing but, at the same time, sanctioned a segregated Bosnia created by ethnic cleansing and ruled by local authority ethno-nationalists. This contradiction has resulted in a 10-year struggle between the international community and local authorities over the ethnic composition of Bosnia.

With a 2001 grant from the National Science Foundation (NSF), Toal and his colleague, Carl Dahlman, assistant professor of geography at the University of South Carolina, traveled extensively across the divided country, conducting more than 50 field interviews for a study that analyzes how extensive efforts by the international community to reverse ethnic cleansing in Bosnia have affected particular locations.

With this returns project drawing to a close, Toal and a collaborative team of scholars from other universities across the country recently received a \$650,000 grant from the

NSF to explore "The Dynamics of Civil War Outcome: Bosnia and the North Caucasus." While there have been many valuable studies about the causes of civil war, few have examined the economic, social, political, and health consequences of violent conflict for the communities and societies in the war zone and contiguous regions.

"The wider impact of this new NSF project is that it will deepen empirical analysis of the factors that cause conflicts in two strategic regions with substantial Muslim populations, southern Russia and Bosnia-Herzegovina. Understanding the localized impact of civil wars is vital in helping us understand if peace agreements are working or not, and whether peaceful relations between nationalities in the two regions can be maintained," Toal said.

The research is ultimately about "state-building" in war-torn regions. "Our goal is to provide answers to key issues about the nature of community conditions in former war zones as local, national, and international agencies try to cope with the disruptions to peoples, economies and environments during the past 15 years," he said.

The NSF grant will allow the research team to ascertain the scope of structural and personal damages, the separate and cumulative effects of forced and voluntary population movement, the differential impacts of war dynamics across localities and communities, and the depth of national, religious or ethnic-based consciousness, Toal said.

delighted to have its support—which is a recognition of the quality of our researchers and our leadership in forest industries."

Virginia Tech, Steger said, is well placed to assist the nation's forest industries. "Our faculty members in marketing, wood science and forest products, and forestry are nationally renowned and have forged a strong partnership to study the needs of the nation's forest industries."

Earl Kline, a Virginia Tech wood products professor who specializes in industrial systems engineering, views forest industries as an important engine in the domestic economy. "This sector employs more than 1.5 million people, has an annual payroll of \$51 billion, and ranks among the top 10 manufacturing employers in 42 of our states."

The center will work with companies in primary processing and secondary manufacturing industries; retailers of forest products; academic experts in forestry, wood products, and business; state government officials; and representatives of the USDA Forest Service.

Center director and marketing professor David Brinberg said the center's faculty will examine issues specific to the industry, conduct executive and continuing-education programs, and prepare graduate and undergraduate students for careers in forest industries.

### SLOAN

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industry efforts to compete effectively, adopt better technology, and become more responsive to consumer demand."

The center has developed a consortium of experts from industry, academia, and government that recognizes the importance of linking marketing practices and manufacturing processes. The center's activities focus on research, technology transfer, and expanding the skills, diversity, and quality of the workforce.

Warner convened a Virginia Forest Industries summit this past spring that brought together industry, government, and academic experts. The purpose of the summit was to look at ways to strengthen Virginia's forest industries and preserve the forestland base. The Sloan Center will enable Virginia Tech and the state to provide innovative leadership for these issues in the coming years. The forest industries are both Virginia's largest agricultural sector and its largest industrial sector. The industry employs, directly and indirectly, about 250,000 people in the state.

Virginia Secretary of Commerce and Trade Michael J. Schewel said the center will assist the nation's forest industries through research, teaching, and industry outreach programs that will enhance the industries' manufacturing technology and efficiency and workforce education and skills. "The center will bring together all the key stakeholders in forest industries to address the challenges facing this sector," Schewel said. "The center will help the commonwealth leverage its investments in worker training and research and development to attract new businesses and support our current industries."

Virginia Tech joins 17 other universities across the nation, including Harvard, MIT, Berkeley, and Columbia, which house Sloan Industry Centers. "Given the selectiveness of the Sloan Foundation's awards for such centers," President Charles Steger said, "we're

### Downey named NAE senior fellow

By Jean Elliott

Gary Downey, professor of science and technology in society in the College of Liberal Arts and Human Sciences, has been named a Boeing Company Engineering Education senior fellow by the National Academy of Engineering (NAE).

Downey began 12 months of service Nov. 1 and will produce analyses relevant to one of four research thrusts of the NAE's Center for the Advancement of Scholarship on Engineering Education (CASEE). These analyses will be issued in white papers and presented orally at the CASEE annual meeting in October 2005.

### AWARDS

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#### Biological Systems Engineering

Residing in both the College of Agriculture and Life Sciences and the College of Engineering, Biological Systems Engineering incorporates research and hands-on experience into its undergraduate curriculum, which is ranked 11th in the nation by *U.S. News & World Report*.

Each summer, BSE conducts the National Science Foundation Research Experience for Undergraduates program, which teaches students about the research process and encourages them to pursue graduate studies. "This program has effectively linked undergraduate education with research and scholarship, impacting not only our graduate program, but those of many other universities," said Saied Mostaghimi, department head.

The department also hires many of its students to work in its research laboratories and provides unpaid internships for others. Students who nominated the department for the award stressed the importance of the faculty-student interaction, noting that faculty members put student understanding of the project before the completion of the work, making it possible to learn much more.

The department makes a concerted effort to enhance its curriculum. For example, several BSE faculty members collaborated with engineering-education faculty and education/academic assessment on a proposal to reformulate selected existing curricula and received \$1 million from the National Science Foundation to execute the proposal.

More than 30 percent of BSE students gain research experience as undergraduates.

#### Theatre Arts

Professors in Theatre Arts collaborate with each other and with their students, linking faculty research with student learning. The students engage in all levels of theatre production and experience the rigor and intensity of research application. The research specialties of the faculty—from lighting and sound to audience engagement—focus in a

Downey, an affiliated faculty member of the Department of Engineering Education in Virginia Tech's College of Engineering, will engage in a joint project with Juan Lucena, associate professor of liberal arts and international studies at the Colorado School of Mines.

CASEE is part of a larger initiative on engineering education. In 1999 the Committee on Engineering Education was established as a standing program to study the issues surrounding engineering education through a series of projects that explore different, timely questions.

collaborative way on an investigation process that lies at the core of teaching. The result is a vital and symbiotic relationship that melds teaching and research with theatrical production and classroom experiences.

The department's curriculum fully integrates learning and research. Course content feeds directly into what is examined and tested in the laboratory, which is the theatre stage. For example, a poetry class evolved into a new play—*Ear and I and Silence*.

Or a play can feed directly into what is examined in the classroom. *The Laramie Project*, for example, generated class conversations and presentations.

In 1999-2000, the department brought internationally acclaimed theatre creator and director Ping Chong to campus to team-teach undergraduate performance courses. Working with students and faculty members, Chong created a new theatre production, *Truth and Beauty*. He will return this semester to create another new work.

The department involves all of its majors in research over the course of a production season.

#### History

The Department of History has a distinguished record of innovation in its undergraduate programs, and its professors have long cultivated links between their research and scholarship and the department's undergraduate curriculum.

Through collaboration and by using instructional technology, the department has developed what it calls "digital history," a new approach to teaching large sections of United States history.

The project has relied on constant interaction between professors and students and has earned two major grants and a contract to distribute the resulting digital reader to high schools and universities across the country.

A team of faculty members secured a grant from the National Endowment for the Humanities to continue developing the online U.S. history modules and to add European history modules. The department provides summer internships for its majors to work on the project.

The use of digital materials to introduce new historical scholarship is evident throughout the department, from junior-level Latin American courses to an NEH and Mellon-supported "Virtual Jamestown" project, as well as a new project to create an on-line index of Civil War newspapers.

To emphasize student involvement in its programs, the department offers three prizes that recognize the results of student research, including the Digital History Prize for the best paper using digital technology and online resources.

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