

SPECTRUM



VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

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

VOLUME 23 NUMBER 33 FRIDAY, MAY 25, 2001

TODAY'S EDITION
see page 2 for
reports on faculty
activities.

Tech faculty members honored by NCTC

By Liz Crumbley and Sally Harris

Three Virginia Tech faculty members were honored on May 16 during the New Century Technology Council's (NCTC) 2001 Tech Nite awards ceremony at the Hotel Roanoke and Conference Center. The council—with 130 businesses as members, the third-largest organization of its kind in Virginia—started the awards program last year to recognize leaders and innovators in the region's high-tech sector.

Ray Pethtel, university transportation fellow and associate director of the Virginia Tech Transportation Institute, received the

High Tech Leadership Award for his work with both the university and the NCTC. Pethtel helped establish the council and served as its first president.

As commissioner of the Virginia Department of Transportation (VDOT) from 1986 to 1994, Pethtel championed the concept of the VDOT/Virginia Tech Smart Road project. As university transportation fellow, he has facilitated Smart Road approval and construction and acted as spokesman for the project. The Smart Road is a unique research facility for intelligent-transportation systems and pavement research.

Pethtel also is on the faculty of the university's Center for Public Administration and Policy, where he teaches transportation policy and administration, and is director of the recently established Institute for Policy Outreach. In 2000, he received an award for career achievement from the National Conference of State Legislatures, primarily for his work from 1974 to 1986 as the founding director of Virginia's Joint Legislative Audit and Review Commission.

Several years ago, Kent Murphy was a community college drop-out and a custodian at

(See TECH on 3)

Miller named university controller

Dwight Shelton, vice president for budget and financial management, has announced the appointment of Kenneth Miller as university controller.

"We are very pleased that Ken has accepted this new responsibility. His combination of prior auditing experience along with several years of work within the Virginia Tech Controller's Office have resulted in a combination of business skills and knowledge that will be very valuable in this position," Shelton said.

Miller worked for the international accounting firm of Arthur Young and Associates and the American Heart Association before coming to Virginia Tech in 1988 as manager of general accounting. Since 1995, he has been associate controller for financial reporting, overseeing all financial reports and cost accounting functions of the university, as well as serving on the steering team for the implementation of Banner Finance.

One of Miller's first major assignments will be planning for the conversion of the university's financial statements to a new set

(See MILLER on 4)

ASPIRES grants lead to NSF funding

By Susan Trulove

Five years ago, a research group made up of faculty members and graduate students from the colleges of Arts and Sciences, Agriculture and Life Sciences, and Engineering, received one of the first ASPIRES grants from the Research Division. Earlier this month, the group received \$1.1 million from the National Science Foundation's (NSF) newest initiative, nanoscale science and engineering.

ASPIRES stands for "A Support Program for Innovative REsearch Strategies." Michael Hochella, professor of geochemistry and mineralogy, can't say enough about the ASPIRES program.

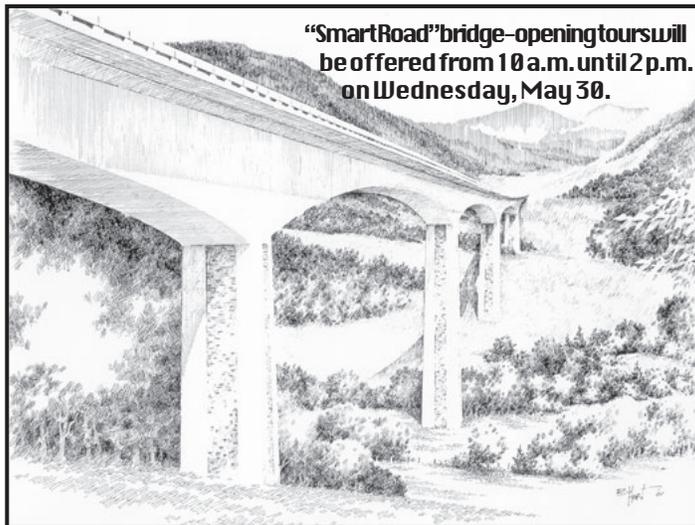
Microbial interactions with mineral surfaces influence the bioavailability of both nutrients and contaminants in the environment, impacting such diverse environmental processes as the fate and transport of heavy metals, biodegradation of environmental contaminants, and effective use of agrochemicals. Yet, as critical as microbe-mineral interactions are, in terms of research, "minerals and microbes might as well be night and day," Hochella said.

In 1996, he talked to soil scientist Duane Berry and environmental engineer John Little. "We realized that microbe-mineral interaction was a research field of the future," Hochella said. "But to do this science, you need to do state of the art biochemistry, state of the art geological sciences, state of the art environmental sciences and engineering. ASPIRES made it possible."

The Research Division provided \$25,000, which was matched by the colleges. The group used the original ASPIRES money to hire postdoc Chris Tadamier, and began interdisciplinary research and education.

Ph.D. graduate Steven Lower will go to the University of Maryland as an assistant professor in July. But, while a graduate stu-

(See ASPIRES on 4)



"Smart Road" bridge-opening tours will be offered from 10 a.m. until 2 p.m. on Wednesday, May 30.

Task Force Formed On Campus Climate

By Benjamin Dixon, vice president for multicultural affairs

To the Virginia Tech community:

Many university and college campuses across the country—Virginia Tech among them—are making concerted efforts to become more diverse and inclusive, and are experiencing the usual stress and discomfort that comes with significant change. Recent events on our campus, and the results of our own climate surveys, point out the need for all of us to increase our understanding of those conditions and individual rise to a hostile and non-nurturing

**CAMPUS
CLIMATE
UPDATE**

letter to the community, is to move this campus forward cooperation and support of all, campus that is open, this in mind the Office of establishing a Task Force on Campus Climate (TFCC) to explore the areas of climate, communications, and civility. The task force will be charged, consistent with Goal 2 of the University Diversity Plan 2000-2005, to recommend to the president activities and actions designed to:

1. improve the climate for members of under-represented groups and others;
2. improve communications between and among the students, staff and faculty members; and,
3. achieve greater adherence to the standards of civility and respect described in the university's Core Values and other codes of conduct.

(See TASK on 4)

Applications continue to set records

By Kiley McMichael

After a record 12-percent increase in freshman applications last year, admissions officers are reporting another year with increased applications.

Admissions received and processed 18,800 freshman applications, surpassing last year's record high of 18,400. "We continue to be pleased at the number of high school seniors wanting to become Hokies," said Karen Torgersen, director of undergraduate admissions. "The momentum has only grown stronger."

Admissions also saw a record number of applications submitted on line: 60 percent of the total applications were processed from on-line submissions, compared to about 35 percent last year.

The number of African American students accepting the offer of admission is up more than 40 percent from last year, reflecting efforts to increase campus diversity.

Applicants are also posting high academic statistics—the average student offered admission this year had a grade-point average of 3.65 (on a 4.0 scale) and an average cumulative SAT score of 1,208.

Tech continues to see high numbers in other admissions areas as well. Transfer acceptances are at their most competitive, and

(See APPLICATIONS on 4)

ACTIVITIES

EVENTS

JUNE

Friday, 25

Summer Arts Festival Program, 6 p.m., Henderson lawn.

Monday, 28

Memorial Day Holiday for Faculty and Staff.

Wednesday, 30

"With Good Reason," 7 p.m., WVTF: Topic TBA.

Friday, 1

Salary and Wage Paydate.
Summer Arts Festival Program, 6 p.m., Henderson lawn.

Saturday, 2

YMCA Run, 10 a.m., Blacksburg Public Library.

Monday, 4

Last Day to Drop.

Wednesday, 6

"With Good Reason," 7 p.m., WVTF: Topic TBA.

Thursday, 7

Family and Work/Life Resources Program, 12:15-12:45 p.m., 217 Squires.

TAUT Production, 7 p.m., Squires Student Theatre: Through 6-9.

Friday, 8

Summer Arts Festival Program, 6 p.m., Henderson lawn.

TAUT Production, 7 p.m., Squires Student Theatre: Through 6-9.

BULLETINS

Leave donations requested

A Virginia Tech employee in Virginia Cooperative Extension has requested leave donations.

Salaried classified employees or a 12-month regular faculty members may participate by donating annual leave in increments of eight hours. There is no maximum donation limitation per year, nor is there a minimum balance that must be maintained. Donation forms can be downloaded from the Personnel Services web site at <http://www.ps.vt.edu/ps/forms/forms.html>.

Leave donations received after the employee's eligibility status changes (such as, return to work, disability retirement, retirement, etc.) will be returned to the donor in accordance with established Personnel procedures. Leave must be donated to either a specific individual or area. Please return completed forms to Kim Linkous, Personnel Services, Southgate Center, (0318).

'Smart Road' tours offered

"Smart Road" tours will be offered May 30 from 10 a.m. to 2 p.m. Visitors will be able to observe the experimental roadway and rain making.

Museum offers Field Days, Second Saturdays

The Virginia Tech Museum of Natural History is offering field walks on the second Saturday of the month. The walks feature field experiences and hands-on activities in a variety of natural-science areas. The goals of the walks are to explore the flora and fauna of the New River Valley and to showcase field research projects. The walks are appropriate for ages 10 to adult. Minors must be accompanied by a responsible adult.

Permissive dialing to begin

Permissive dialing of new area code 434 will begin June 1 in southeastern Virginia. The new area code will be implemented in a portion of the geographic region currently served by the 804

area code.

For a complete list of counties affected by the new area code, see <http://www.state.va.us/scc/news/434code.htm> or www.state.va.us/scc/news/434code.htm. The new area code will not change the current local calling areas. However, local calls between the remaining 804 and the new 434 area codes will require 10-digit dialing (area code plus seven digits). Calls to these locations from the Blacksburg campus will be long-distance calls and will be dialed accordingly. The new 434 area code will become mandatory beginning Jan. 15, 2002.

For more information, call Communications Network Services at 1-6460 or visit <http://www.cns.vt.edu/news/>.

YMCA posts hikes summer schedule

The YMCA at Virginia Tech has posted the Y Hikes Summer 2001 schedule on their web page at http://www.vtymca.org/hikes/ymca_hikes.html. The first hike will be May 26 at 9 a.m. to Rock Castle Gorge.

Lytton honored with advising award

Ruth Lytton, associate professor for the Department of Near Environments, is this year's recipient of the Virginia Tech Career Services Award for Excellence in Career Advising. The award recognizes a Departmental Career Advisor for exemplary work with students in the area of career development. David Ford, vice provost for academic affairs, presented the award to Lytton at the annual Departmental Career Advisors Luncheon held on April 18.

Lytton has been a full-time member of the Virginia Tech faculty for 15 years. Resource management is her area of expertise, especially as related to family financial management.

Lytton was recognized for matching students with academic and career interests, her availability for academic and career advising, the use of technology to maintain "high touch," her networking expertise, and her tireless efforts in program development.

"Dr. Lytton genuinely cares about students and their success," said Rosemary Carucci Goss, Residential Property Management Advisory Board professor in the Department of Near Environments.

Michael Roeder, a senior in housing, interior design, and resource management, said, "Her commitment to her students is nothing less than astounding. I can not even begin to imagine the amount of time she dedicates to answering students' questions, e-mails, and just being there for any concerns someone might have."

Kai Chung, an alumnus from Virginia Tech, and currently, the operations and network manager for "In House, Inc.," said, "Dr. Lytton not only helped me put my course work together for a degree that captured my interest in the area of resource management, but she also helped me create a foundation that I continue to build upon to this day in both my professional career and graduate studies."

Engineering inducts new Academy of Engineering Excellence members

By Lynn Nystrom

Virginia Tech's College of Engineering and its Advisory Board, consisting of members of its Committee of 100 inducted six new initiates into its Academy of Engineering Excellence.

The initiates of the Academy of Engineering Excellence for 2001 are Joseph H. Collie, chemical engineering; Joseph R. Loring, electrical engineering; F.D. Robertson, mining engineering; Stuart Shumate, civil engineering; John F. Sweers, industrial engineering; and L. Preston Wade, civil engineering.

Membership in the academy is reserved for individuals holding an engineering degree from Virginia Tech's College of Engineering who have made sustained and meritorious engineering and/or leadership contributions during their careers. Initiates have reached the pinnacle of their professional achievements and will normally have been alumni for 40 or more years.

The College of Engineering and the Advisory Board anticipate that no more than 10 individuals will be inducted as members of the academy annually. This selection is made from some 40,000 living alumni of the College of Engineering.

Collie founded his company, Southchem Inc. of Durham, N.C., in 1969 and it recorded \$1 million in sales within the year. Southchem is still run as a separate entrepreneurial operation with little change in style or management. Collie, who retired in 1995, continues to serve as a Southchem board member.

In 1995, Joe and Barbara Collie presented Virginia Tech's Chemical Engineering Department with a \$1-million gift. He specified the money should be used to establish a chaired professorship dedicated to developing an

interdisciplinary program in chemical distribution and marketing. Joseph Sullivan was chosen for this position, and is creating a strong program.

Loring's work appears all over the world. His trademark is on the New York's World Trade Center, the Federal Parliament House atop Capital Hill in the city of Canberra, Australia, and the U.S. Supreme Court Building in Washington, D.C.

Robertson is known "as one of the most successful, effective and innovative coal operators in the country," according to Mike Karmis, Virginia Tech professor of mining and minerals engineering.

Shumate, a 1934 graduate of civil engineering was one of the key men who planned the building of Crystal City. He was president of the Richmond, Fredericksburg & Potomac Railroad (RF&P) at the time, and his company owned the land just outside the nation's capital.

During the Cold War, Sweers, an industrial engineer, was retrofitting Raytheon's Hawk Missile systems. By the end of his working career, the (IE) was ensuring that the highly touted Gap Stores maintained a complete inventory of its clothing stock in its hundreds of U.S. stores.

Wade spent his entire career with Wiley and Wilson. His work with the firm of architects, engineers, and planners included engineering survey and design work involving storm drainage improvements, water supply and sewage disposal facilities, dams and highways, and other planning, design and inspection projects. He was named president in 1973, after the firm was reorganized as a professional corporation, and in 1980 he was elected chairman and CEO.

Ekirch's article is lead in history journal

By Sally Harris

The April issue of the *American Historical Review*, the history profession's flagship journal, contains as its lead article Roger Ekirch's research on the subject of how persons slept before the Industrial Revolution.

In the article "Sleep We Have Lost: Pre-industrial Slumber in the British Isles," Virginia Tech historian A. Roger Ekirch uncovers a pattern of nocturnal slumber before the Industrial Revolution that was dramatically different from ours today. Throughout the Western world, most persons experienced a form of segmented sleep distinctly unlike the consolidated sleep modern families enjoy.

Until the 19th century, nearly an hour or more of quiet wakefulness interrupted the rest of Western households midway through the night. Some individuals used this interval to perform chores, visit friends, or even rob their neighbors' orchards. Yet a majority probably remained in bed to pray, engage in sex, or, most important, reflect on dreams from their "first sleep." Not only were these visions unusually vivid, Ekirch posits, but their images would have intruded far less on conscious thought had sleepers not stirred until dawn.

The explanation for this segmented pattern, with a provenance as old as humankind, likely lies in an absence of modern lighting, which has a marked impact on people's circadian rhythms. A former Guggenheim fellow, Ekirch contends that the implications of this traditional mode of repose are enormous, particularly in view of the weight Western societies once attached to dreams.

Suggesting that consolidated sleep as we now experience it is unnatural, Ekirch said segmented sleep afforded the human psyche an expanded avenue to the waking world that has remained closed for most of the Industrial Age.

EMPLOYMENT

CLASSIFIED POSITIONS

The following classified positions are currently available. More details of these positions, specific application procedures/position-closing dates may be found on the Personnel Services web site at <http://www.ps.vt.edu>. Available positions are also listed on the Job Line, a 24-hour recorded message service. For information on all job listings, call 1-5300. Some of the following positions include state benefits. Positions with numbers beginning with a "W" are hourly/do not include state benefits. Individuals with disabilities desiring assistance or accommodation in the application process should call by the application deadline. Closing date for advertised positions is 1 p.m. Monday. An EO/AA employer committed to diversity.

FULL TIME

Administrative/Research Assistant, 007674B, Pay Band 3, ECE/MPRG.

Assistant Counselor, 006557R, Pay Band 3, Scholarships/Financial Aid.

Budget Tuition Plan Supervisor, 002422F, Pay Band 3, University Bursar.

Certified Nurse Practitioner/Physician's Asst Category I, 007748J, Pay Band 5, Health Center.

Chapel Manager, 000482J, Pay Band 3, UUSA.

Cns Receptionist, 000187A, Pay Band 2, CNS.

Dishroom Supervisor, 002988H, Pay Band 1, RDP/West End Market.

E-commerce Project Manager, 006813S, Pay Band 6, Web Application R&D.

Fire Protection Inspector, 000239Y, Pay Band 4, EHS.

Food Production Supervisor, 000390H, Pay Band 1, RDP/Hokie Grill.

Grounds Worker, 000254F, Pay Band 1, Physical Plant/grounds/Recycling/Solid Waste.

HVAC Technician Senior, 000516H, Pay Band 4, RDP.

Lab Manager, 003420M, Pay Band 3, Animal/Poultry Science.

Lab Specialist, 001972M, Pay Band 3, CVM/MDL—Academic Affairs.

Laboratory Specialist, 007245M, Pay Band 3, Biochemistry.

Laboratory Specialist, 007707B, Pay Band 3, CE.

Laboratory Specialist Advanced, 007735M, Pay Band 4, BSE.

Large Animal Supervisor, 006998M, Pay Band 4, Veterinary Teaching Hospital.

Maintenance Manager, 001272H, Pay Band 4, RDP/Facilities and Services.

Office Services Specialist, 001028S, Pay Band 2, English.

Office Specialist, 002237H, Pay Band 2, RDP/Residence Education.

Photography Manager, 002415S, Pay Band 5, University Relations/Visual/Broadcast Communications.

One full-time food-service position available.

Power Plant Mechanic, 000334F, Pay Band 3, Power Plant.

Program Administrator, 005175Y, Pay Band 3, Continuing Education.

Program Support Technician, 002369R, Pay Band 3, Scholarships/Financial Aid.

Programmer Analyst, 001643F, Pay Band 5, Budget/Financial Planning.

Sous Chef, 000940H, Pay Band 3, RDP/Southgate Bake Shop.

Storage Facility Assistant, 000141Y, Pay Band 2, University Libraries/Storage Building.

Student Activities Office Manager, 001020J, Pay Band 3, UUSA.

Systems Administrator, 001263S, Pay Band 5, Computing Center, Systems/Operations.

Training/Documentation Coordinator, 007518S, Pay Band 3, University Development.

PART TIME

Administrative Assistant, W023132S, Pay Band 2, University Relations.

Animal Care Technician, W022190M, Pay Band 2, Veterinary Teaching Hospital.

Animal Care Technician, W020556M, Pay Band 2, CVM—Veterinary Medical Sciences.

Assistant Editor, W020344S, Pay Band 4, University Relations/Outreach Communications.

Two part-time food-service positions available.

ICU Vet Technician-large Animal, W022218M, Pay Band 2, Veterinary Teaching Hospital.

Pharmacist (Relief), W022501M, Pay Band 6, Veterinary Teaching Hospital.

Pharmacy Assistant, W020839M, Pay Band 2, Veterinary Teaching Hospital.

Visual Resources Curator, W022616S, Pay Band 3, Art/Art History.

UNIVERSITY ONLY

Forage Testing Lab Manager, U005209M, Pay Band 4, Dairy Science.

OFF CAMPUS

Administrative Assistant, 007761M, Pay Band 3, VCE 4-H-Richmond.

Program Support Technician, 005134M, Pay Band 3, VCE—Stafford County.

Program Support Technician, 007751R, Pay Band 3, Virginia Tech Richmond Center.

Radio Announcer, W020800L, Pay Band 3, University Relations/WVTF Radio.

Research Specialist Senior, 006504R, Pay Band 4, Conservation Management Institute.

Underwriting Account Executive, 001963L, Pay Band 3, WVTF.

FACULTY POSITIONS

NON-INSTRUCTIONAL Scholarships/Financial Aid. Associ-

ate Director, Innovation/Business Processes. Contact: Lisa Shires, 222 Burruss (0222). Review begins June 1.

Virginia Tech Transportation Institute. Hardware Technician. Contact: Cindy Wilkinson, 3500 Transportation Research Plaza (0536). Deadline is July 1.

Virginia Tech Transportation Institute. Research Associate. Contact: Cindy Wilkinson, 3500 Transportation Research Plaza (0536). Open until filled.

Virginia Tech Transportation Institute. Senior Research Associate (evenings). Contact: Cindy Wilkinson, 3500 Transportation Research Plaza (0536). Open until filled.

Virginia Tech Transportation Institute. Senior Research Associate (days). Contact: Cindy Wilkinson, 3500 Transportation Research Plaza (0536). Open until filled.

Athletics. Assistant Track/Field Coach. Contact: Pam Linkous, 359 Jamerson (0502). Review begins May 29.

VCE. Extension Agent, 4-H Youth Development (re-advertised). #FA724, Lancaster/Northumberland Co's. Contact: Robert Ray Meadows, 121 Hutcheson (0437). Review begins June 21.

VCE. Extension Agent, Agriculture/Natural Resources (re-advertised). #FA492, Environmental Horticulture, Fairfax Co. Contact: Steve Umberger, 121 Hutcheson (0437). Review begins June 4.

VCE. Extension Agent, 4-H Youth Development. #FA594, Arlington Co. Contact: Robert Ray Meadows, 121 Hutcheson (0437). Review begins June 21.

VCE. Director, Jamestown 4-H Educational Center. Contact: Robert Ray Meadows, 121 Hutcheson (0437). Review begins June 21.

TECH

Continued from 1

ITT's Electro-Optical Products Division. Today, he is a member of Virginia Tech's electrical and computer engineering (ECE) faculty and co-founder and head one of the fastest-growing companies in Virginia. The NCTC presented Murphy with the High Tech Entrepreneur Award.

Murphy discovered his talent for working with optical fibers at ITT when he was given a job cleaning them in the lab; he soon developed a patented technique for making fiber-optic couplers. As an engineering undergraduate at Virginia Tech, he began working with Rick Claus, ECE professor and founder of the Fiber & Electro-Optics Research Center. While Murphy was in graduate school, he and Claus founded Fiber & Sensor Technologies Inc. (F&S), and Murphy began developing sensors that can measure strain, temperature and other conditions at the sub-atomic level.

Under Murphy's leadership, F&S became Luna Innovations, which has fostered two spin-off companies and has been named one of the 10 fastest-growing companies in Virginia for three years in a row. Murphy already has won more than 20 patents for his inventions in the area of fiber-optic sensors and systems.

Naren Ramakrishnan, assistant professor of computer science, received the Egg Factory Innovation Award, which is designed to reward developments in technology that most likely will meet with success in the commercial mar-

ket. Ramakrishnan received the award for devising his PIPE technology, which provides a method of customizing webs without identifying the types of interactions that must be supported.

His idea was featured in the November-December 2000 issue of *IEEE Internet Computing*, a periodical devoted to Internet technologies. PIPE is the first systematic conceptual methodology to design personalization services on the Internet. It has been applied to a variety of domains, ranging from personalizing the Blacksburg Electronic Village for tourist information to personalizing stock quotes on the web using recommendations from on-line brokerage firms.

Last year, for a different topic, Ramakrishnan received a National Science Foundation (NSF) CAREER Award. The CAREER award is one of NSF's most prestigious awards for new faculty members, and this was the first award made by the Next Generation Software program of NSF. This grant brings \$229,819 over four years. Ramakrishnan is also co-principal investigator on three other NSF grants.

The NCTC includes member companies from 12 counties in western Virginia and was established in the late 1990s to create a favorable climate for long term profitability, competitiveness and success of technology-base enterprises.

Forest-products center director named

By Lynn Davis

The Center for Forest Products Marketing and Management in the College of Natural Resources, has announced that Bob Smith will be the center's new director. He succeeds Bob Bush who is now the college's associate dean for research.

The Center for Forest Products Marketing and Management is a collaborative effort between the forest-products industry and the department of wood science and forest products at Virginia Tech to provide marketing and management education to students and employees of forest-product companies. The center conducts specific market research for its membership and on-site marketing and sales training for forest-products companies.

Smith is an associate professor and Extension specialist in forest-products marketing. He holds a Ph.D. from Virginia Tech in forest-products marketing, an MBA from the University of Wisconsin at Oshkosh, and a B.S. in wood science from Michigan Tech. Before completing his Ph.D., he was a sales representative for eight years in the Midwest for a major supplier of treated lumber products. He has six years production management experience

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Virginia
Tech

VIRGINIA POLYTECHNIC INSTITUTE
AND STATE UNIVERSITY

Spectrum, a faculty-staff tabloid, is published each Friday during the academic year, with the exception of certain holidays, exam weeks, and the summer. Copy deadline is noon Friday. No advertising is accepted.

Spectrum is a non-profit publication of the Office of University Relations: Lawrence G. Hincker, associate vice president for University Relations; David Nutter, director of college and media relations.

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Production Manager
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Business Manager
1-8819

Letters to the editor and questions for "Ask *Spectrum*" should be addressed to the editor, 105 Media Building, Virginia Tech, Blacksburg, VA 24061.

Electronic Spectrum. <http://www.unirel.vt.edu/spectrum/>

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Veterinary college graduates 18th class

By Jeffrey S. Douglas

A veterinarian, veterinary-practice management consultant, and businessman who has spent more than a decade providing leadership and support for the Virginia-Maryland Regional College of Veterinary Medicine was honored during the college's 18th annual Commencement ceremony on May 11.

Robert C. Brown Jr. was inducted into the college's John N. Dalton Society during the ceremonies. Memorializing the late Virginia governor who signed its founding legislation, the Dalton Society honors those who have provided distinguished service for the college.

Brown is an internationally renowned veterinary practice management and organizational development consultant. He has served as a member, advocate and leader for numerous professional veterinary organizations, including the D.C. Academy of Veterinary Medicine, the Virginia Veterinary Medical Association, the Northern Virginia Veterinary Medical Association, Veterinary Management Group I, and others. He has also chaired the Virginia delegation of the college's Veterinary Advisory Board.

Eighty-eight DVM degrees, two Ph.D. degrees, 11 M.S. degrees and eight certificates of residency were awarded during the ceremony.

Featuring dignitaries from both Virginia Tech and the University of Maryland, the pageant included the administration of the Veterinarian's Oath, the Hooding Ceremony, and the presentation of awards and honors.

Jerry R. Roberson, a former associate professor in the Department of Large Animal Sciences who accepted a position at another university earlier this year, returned to Blacksburg to present the year 2001 address. Michael D. Erskine, president of the Maryland Veterinary Medical Association, welcomed the new veterinarians on behalf of organized veterinary medicine.

The Dr. and Mrs. Dorsey Taylor Mahin Award for Clinical Excellence, an award that honors veterinarians who display skill and compassion in service to animals and people was presented to Michael Leib, a veterinary gastroenterologist and professor in the Department of Small Animal Clinical Sciences. Phillip G. Turfle Jr., the Class of 2001 valedictorian, was presented with the Richard B. Talbot Award, and Steven R. Escobar was honored as the College's Outstanding Young Alumna for 2001.

Earlier in the day, scholarship donors and student recipients were recognized during the annual Awards Luncheon.



TEAMWORK Participants at this year's Staff Appreciation Day celebrate their victory in team competitions. The festivities also included tours, food, and music. (A Griffiths)

Lane Stadium expansion approved

By Larry Hincker

After the 2001 Virginia General Assembly concluded without passing a budget, it appeared that the Lane Stadium south end-zone expansion would lose a year on the construction schedule. The 2000 General Assembly approved a \$26-million expansion project, but it was re-scoped and increased to \$37 million, requiring another round of state approval. The Governor's Office, using normal "out-of-session" authority granted by the Appropriations Act, has given the go-

ahead.

Noting the time sensitivity of the project, the fact that the General Assembly had already given an earlier authorization, and that it will be paid by non-state funds, Governor James Gilmore directed the Department of Planning and Budget to release the project. To stay on track for the opening of the Fall 2002 football season, the expansion project must be bid no later than the end of May.

ASPIRES

Continued from 1

dent in geology at Virginia Tech, he invented technology that made it possible to see and measure the interaction between microbes and minerals. And Lower, Hochella, and Terry Beveridge of the University of Guelph published an article in the May 18 issue of *Science* about the attraction between the microorganism, *Shewanella*, and the mineral goethite. Their research provided the first evidence of recognition between a living organism and an inanimate object.

Probing the unknown properties of single biomolecules is the subject of the NSF grant. "We're working with pieces of matter the size of molecules that have unusual properties. We are just beginning to understand what the properties are and how we can put them to use," Hochella said.

To study nanoscale interactions, Lower modified an atomic force microscope so he could attach a living bacterial cell to an arm and move the cell toward a mineral surface to observe and measure the interaction.

Before the cell touches the mineral, there is an interaction—attraction or repulsion. It is a weak force in terms of measurement, but it determines whether or not the microbe attaches to the mineral, Hochella said.

Since the nanoscale interactions are mediated by biomolecules and the inorganic complements of the mineral surface, Ph.D. student Treavor Kendall figured out how to attach a single biomolecule to the arm under the atomic-force microscope.

"When you use the microscope to pull the biomolecule away from the mineral, it's like stepping on chewing gum then pulling your foot away from the pavement. You stretch the biomolecule until it snaps off. By measuring the

stretching characteristics, we think we can tell which biomolecule is there," Hochella said.

Co-investigators on the NSF grant are Lower at the University of Maryland and Virginia Tech researchers Susan Eriksson, associate professor of geological sciences; Maddy Schreiber, assistant professor of hydrology; and Chris Tadanier, research assistant professor with the microbe-mineral group.

The NSF grant is the second award in five years stemming from the ASPIRES program. The first external award was \$386,000 from the U.S. Department of Energy in 1996. "This work involves the mechanisms by which microbial communities acquire nutrients from mineral surfaces," Hochella said.

The microbe-minerals group's youngest graduate student, Andrew Madden, also received an NSF Graduate Student Fellowship, one of only 30 such fellowships awarded to earth scientists in the country this year. Tracy Cail, another recent addition to the mineral-microbe team, was awarded a graduate fellowship from the Department of Education.

TASK

Continued from 1

The TFCC is not intended to replace other groups within the community that have already made significant contributions to climate issues. The membership of the TFCC will be drawn from various groups across the campus such as the Advisory Council on Diversity and Multicultural Affairs, the EOAA Committee, the Student Advisory Committee on Diversity and Multicultural Affairs, the Multicultural Fellows.

The TFCC is intended to be a short-term, focused activity designed to produce specific recommendations for immediate consideration by the administration. It is expected that committee recommendations will include new climate improvement strategies, but they may also support and reinforce activities already under way or being planned by other groups.

MILLER

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of accounting rules and format, in accordance with new requirements issued by the Governmental Accounting Standards Board. In addition, Miller has extensive experience in research-related accounting issues, including the development and negotiation of the university's current indirect cost rates with the federal government. His knowledge and experience with research issues will be very important as the university continues to expand its research programs.

Miller holds a bachelor of science in accounting from Virginia Tech and is a CPA.

At the request of president, I will chair the task force. The work of this task force should be completed by January, 2002.

Other administrative units and the colleges will be called upon for assistance as needed. To guarantee campus-wide representation, a cross-section of faculty and staff members and students will be asked to serve on the task force. These individuals will also serve as communication links to the larger community.

The Task Force on Campus Climate will expect to present a final set of recommendations to the President's Office in January, 2002.

FOREST

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as a softwood sawmill, timber-bridge manufacturing facility, and wood-preservation plant.

Smith has authored over 100 publications in the areas of forest-products marketing and sales. He teaches undergraduate and graduate courses in the areas of forest-products marketing. His continuing-education classes have focused in the areas of marketing and personal selling. His research has focused on applications of wood in industrial markets, adoption of new technology in the wood-products industry and the recycling of treated lumber.

APPLICATIONS

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international student interest is also stronger than ever.

Torgersen credited the continuing interest in Virginia Tech to several factors. "Last year, we witnessed a coming-together of achievements, including our success in football, our emphasis on technology, the popularity of our computer-related majors, and our 28th-place ranking as highest in quality among public institutions in *U.S. News and World Report*." "We continue to build on that synergy, with the dedication of several high-profile new buildings on campus and 30 new buildings slated in the six-year capital plan, new programs and facilities, and continued success as a nationally ranked public institution." Virginia Tech was ranked 26th in the latest listing of top national public institutions.

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