NPR president, White House correspondent to speak here

By Karen Dillon

National Public Radio President Kevin Klose and NPR’s White House Correspondent Don Gonyea will speak at the Donaldson Brown Conference Center Wednesday, Dec. 5 at 4 p.m. The event, hosted by WVTF Public Radio, is free and open to the public.

Klose and Gonyea will discuss a variety of news-related topics including NPR’s coverage of the September 11 terrorist attacks. Audience members are encouraged to ask questions and make comments throughout the discussion.

Before joining NPR in December 1998, Klose served as president of Radio Free Europe/Radio Liberty. Klose, a former editor and national and foreign correspondent of The Washington Post, is also an award-winning author and international broadcasting executive. He is a founder of the Intermedia Review. NPR was named NPR’s White House Correspondent in January 2001. His coverage of President George W. Bush can be heard on NPR’s Morning Edition, All Things Considered, and Talk of the Nation. Gonyea has been reporting for National Public Radio since 1986. Before covering the White House, Gonyea spent nearly 15 years in Detroit reporting on the automobile industry and labor issues. In addition to his work with NPR, Gonyea has been a contributor to The NewsHour with Jim Lehrer and PBS’s This Week in Business. His work is also seen and heard on the BBC, the CBC, and in the Columbia Journalism Review.

Engineers, mathematician get AF grant

By Sally Harris

A team of engineers and a mathematician from Virginia Tech and the University of Florida has won a $556,511 grant from the Air Force Office of Scientific Research to work on theory and algorithms for global/local design optimization.

The design of large-scale systems such as automobiles, aircraft, and ships involves multiple disciplines such as structures, fluids, propulsion, economics, and manufacture. These systems require a decomposition of the global optimal-design problem into disciplinary sub-problems that ideally can be done concurrently and independently, said Layne Watson, professor of computer science and mathematics in the College of Arts and Sciences.

“Typically the subsystems are coupled and cannot be optimized independently of one another,” Watson said. “The researchers will develop a decomposition scheme that is both scalable—a system that breaks down naturally into smaller parts—and adaptive—a system that can change as necessary to accommodate changes in the problem. To manage the complexity of the problem, the team will also develop a generic framework that allows the optimization problems to be constructed and solved separately, but linked together at the system level.”

The team consists of members from both Virginia Tech and the University of Florida. Those from Virginia Tech include Layne Watson and Hui Chang, department head since 1995, and graduate students and postdoctoral researchers.

Provost solicits candidates’ names for dean position

By Clara B. Cox

University Provost Mark G. McNamee is soliciting assistance in identifying possible candidates for dean of the College of Human Resources and Education. The current dean, Janet Johnson, has announced that she will retire next summer.

“The end of August, the Board of Visitors approved an update to the strategic plan, including a set of ambitious goals to increase the university’s stature as one of the nation’s leading research universities. We are looking for a leader for the College of Arts and Sciences who is committed to the goals of diversity and excellence, and who is prepared to face the challenges and opportunities that lie ahead,” Provost Mark G. McNamee said in announcing his selection for the position.

‘Dr. Chang emerged as an energetic and effective scholar who combines established leadership experience at Virginia Tech with a quiet passion to move the college and the university forward....’

Chang, department head since 1995, joined the Virginia Tech faculty in 1978 after working on the physics faculty at the University of Pennsylvania for seven years. He has conducted research at MIT and the University of Chicago and has been a visiting scientist at laboratories in Denmark, British Columbia, Singapore, and the United States. Since earning a Ph.D. in theoretical physics from the University of California at Berkeley, he has written extensively for refereed journals and has published numerous reports on his work.

Tech to face Florida State in Gator Bowl

The Virginia Tech athletics department has announced that it will accept a bid to play in the 57th Toyota Gator Bowl.

Tech will face Florida State on Jan. 1, 2002 at Alltel Stadium in Jacksonville. Kick-off is set for 12:30 p.m., and the game will be televised by Fox Sports Network.

Shelton announces organizational changes in Office of Budget and Financial Planning

By Larry Hincker

In keeping with the university plan to seek alternative revenue streams for the university and to assist with the development of new state funding model that will benefit Virginia Tech, while strengthening financial practices within the university, organizational changes within the Office of Budget and Financial Planning have been announced by Dwight Shelton, vice president for budget and financial management.

Bea Mahan, formerly director for budget development and financial planning, is now associate vice president for budget and financial planning. Mahan will continue to focus on financial planning and analysis and on development of the university’s appropriations requests to the state for the operating and capital budgets. She will also coordinate leadership activities in the budget and financial management areas in Shelton’s absence.

“Bea’s new appointment will also strengthen our ability to support the work of Vice President Ridout and Provost McNamee in establishing the university’s strategic initiatives,” Shelton said.

Tim Hodge, formerly the director of budget operations, is now the budget director. Hodge’s title signifies an elevation in his role.
Events

Friday, 30
Pay Date for Faculty and Staff Members.
International Club, details TBA.

Saturday, 1
Football, 1 p.m., Lane Stadium: Miami.
Men’s Basketball, 7 p.m.: At UVA.

Sunday, 2
YMCA Hike, 1:30 p.m., YMCA Parking Lot.
Faculty Recital, 3 p.m., Squires Recital Salon.

Monday, 3
University Council, 3 p.m., 1045 Pamplin.
Men’s Basketball, 7 p.m., Cassell Coliseum: VMI.
Ensemble Concert, 8 p.m., Squires Recital Salon.

Seminars

Friday, 30
Highlands in Chemistry, 11:15 a.m., 3 Davidson: Paula Hammond, MIT.
MCBB, 12:20 p.m., 102 Fralin: Maynard Olson, Washington.
Philosophy, time, location TBA: Stephen Turner, South Hampton.

BRRG endows polymer science scholarship

By Liz Crumbley
A $25,000 scholarship for Virginia Tech undergraduates has been established by the Blue Ridge Rubber Group (BRRG), a regional subdivision of the Rubber Division of the American Chemical Society.

The BRRG endowment will provide a scholarship each year for a junior or senior who is studying polymer science while majoring in chemical engineering or chemistry. BRRG has 216 members in North Carolina, Tennessee and Virginia. Members are manufacturers and suppliers of polymers, chemicals and equipment for the rubber industry.

“We know that Virginia Tech has an excellent polymer science program and we’re always trying to find good employees for the polymer industry,” said Rick Swenson, a former BRRG chairman who initiated the endowment.

“I want our company to support the best engineers available to us.”

“IT is our hope that the endowment will promote interaction, on a regional level, between Virginia Tech and the Blue Ridge Rubber Group,” said current BRRG Chairman Wiley Betts, who presented the first endowment check to Virginia Tech.

“Since our industry is a mature one, there is a significant need to cultivate and recruit students and students at the point at which they are making career decisions.”

“Our study is looking at two specific TEAP’s, iron reduction and methanogenesis,” said Jackson M. Spain is conducting the research.

“Bacterial iron reduction and methanogenesis, along with sulfide reduction, will account for the most efficiency of bio-remediation. The use of oxygen (aerobic respiration) yields the most.
Employment

Classified Positions

FULL TIME
One full-time food-service position available.

Communications Officer, 000657Y, PB 3, Police.
Coordinator of Administrative Affairs, 007879R, PB 4, Executive Vice President’s Office.
Development Associate, 007880S, PB 3, University Development.
Financial Planning Manager, 007567F, PB 3, Finance.
Fiscal Technician, 007882B, PB 3, CHPM.

Housekeeping—Night Crew, 007814H, PB 1, RDP.
Housekeeping Supervisor, 006926H, PB 3, RDP.
Housekeeping Worker, 000069H, PB 1, RDP.

Housekeeping Worker, P002005C, PB 1, Physical Plant.
Laboratory Safety Inspector, 004791Y, PB 4, EHSS.
Laboratory Specialist, 007077B, PB 3, CE.
Computational Biologist, 002596M, PB 4, VTH.

Multimedia Systems/Applications Specialist, 002054A, PB 4, VBS.
Operations Manager, 007121H, PB 4, RDP.
Programmer Analyst, 00000Y, PB 5, IRM.
Shopleader, 007125H, PB 1, RDP.
Shopleader Supervisor, 007797Y, PB 1, RDP.

Sous Chef, 007818H, PB 3, RDP.
Sous Chef, 009404H, PB 3, RDP.
Technical Director, Digital Library/Archives, 006789G, PB 5, Library Archives.
Transportation Planner, 007498F, PB 4, OT.

PART TIME
Animal Care Technician Large Animal, W020066M, PB 2, VTH.

Professors

Continued from 2

By Sally Harris
The essays and book extracts in: The Gender and Science Reader, co-edited by Muril Lederman of Virginia Tech and Ingrid Bartsch of the University of South Florida, provide a comprehensive feminist analysis of the nature and practice of science.

In the book, well-known feminist writers challenge the self-proclaimed objectivity of scientific practice by uncovering the class, gender, and racial prejudices of modern science. The writings draw from a range of media, including feminist criticism, scientific literature, writings about scientific education, and the popular press.

The book is divided into six sections, each addressing an aspect of gender and science. Through both analytical evidence and personal testimony, the section on “Women in Science” looks at women’s access to the study of science and to employment in that field. “Creating Androcentric Science” explores the gendered origins of science at the time of the Enlightenment. “Analyzing Gendered Science” provides feminist methodologies and epistemology for the study of science. “Gendered Praxis” provides examples of the ways gender bias can affect and distort scientific work. “Science and Identity” looks at how science reinforces gender and racial stereotypes. And “Feminist Restructuring of Science” looks at the future of feminist science studies.

According to Sylvie Coyaud writing in Nature, “The editors nicely balance the different schools of feminist thought.” The essays include that of John Lukacs, which looks at quantum mechanics with a religious focus. There are also two essays that, according to Coyaud, provide “comic relief” as they tell “how past research in the life sciences proceeded apparently unaware that human organisms, unlike bacteria, come in two versions, or blinded by an eagerness to assign inferior quality to female cells, genes or brains.”

The final section of the book discusses ways that the feminist view of science has already changed some fields, such as medical research, and how equal-opportunities policies in the United States “have improved their (women’s) lot in publicly funded research,” Coyaud said.

Included in the book are introductions to each section, plus a comprehensive bibliogra- phy of feminist science studies for those involved in the teaching, research, or study of science.

The contributors include well-known feminist writers such as Donna Haraway, Evelyn Fox Keller, Hilary Rose, and Carolyn Merchant, as well as biologists Christine Wigerman and Anne Wold. According to Coyaud, the research of Wold and Wenerman “showed that women had to publish 2.6 times more than men in order to obtain the same quality scores for post-doctoral fellowship applications submitted to the Swedish Medical Council.”

Lederman is an associate professor of biology and is affiliated with the Women’s Studies Program. Bartsch is an assistant pro- fessor of Women’s Studies at the University of South Florida and is a practicing ecologist. The book is published by Routledge.

Virginia Tech
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FRIDAY, NOVEMBER 30, 2001
SPECTRUM 3
Participants sought for innovative program

Until recently, it was believed that attaining good levels of fitness and strength required hours of training per week. That probably isn’t true.

An interdisciplinary research team at Virginia Tech, supported by ASPIRES funds, has developed a better understanding of the mechanisms involved in inducing fitness and strength adaptations. Their innovative work suggests that, with specific prescriptive, progressive protocols, appreciable increases in fitness and strength can be obtained in minimal training time per week.

In addition, some new research shows that modest but focused reductions in food intake combined with exercise can lead to continued weight loss and maintenance of weight loss over a two-year period.

The team is recruiting participants for additional studies. The team features Janet Wojcik, Lesley Fox, Carrie Blankenburg, and Richard Winett from the Center for Research in Health Behavior in the Department of Psychology in the College of Arts and Sciences and William Herbert and Sharon Nickols-Richardson from the Laboratory for Health and Exercise Science in the Department of Human Nutrition, Foods, and Exercise in the College of Human Resources and Education.

Many people cite lack of time for exercise and feelings of deprivation during weight-loss attempts as reasons they do not stick to programs. In these respects, the Tech program may help break barriers to exercise training and weight management.

The researchers are beginning another phase of their program and are actively recruiting participants. The program is a 16-week aerobic and strength-training program with the possible addition of a nutrition and activity program followed by a 12-week follow-up period. After baseline testing, participants will be randomly placed in one of three possible study groups. Participation takes only about 60 to 90 minutes per week, with actual training sessions taking about 30 minutes twice per week.

In exchange for their involvement in the study, participants will receive at no cost state-of-the-art assessments, including assessments of fitness, physical activity, strength, body composition, bone-mineral density by DXA analysis, lipids, and nutrition.

Participants will also train at no cost in a private facility on North Main Street, with each session supervised by a personal trainer, and some participants will also receive personal nutritional counseling. The total value of the project where the things they design, like composite aircraft-wing panels, are actually built and tested in the lab. Engineering students get to work with our Beechcraft supercomputer in Torgersen Hall, something they normally wouldn’t have access to.

In addition to Watson, the project team consists of Zafer Gurald of the Department of Aerospace and Ocean Engineering and the Department of Engineering Science and Mechanics at Virginia Tech, and Raphael Hafrika of the Department of Aerospace Engineering, Mechanics, and Engineering Science at the University of Florida.

Tech campus loses historic tree

On November 17, Virginia Tech lost one of its most beautiful and well-known trees, an American elm next to Patton Hall.

Approximately 116 years old, the elm was planted or became established as a wild seedling about 10 years after the university was founded, and about 40 years before Patton Hall was built. Positioned next to a sidewalk where hundreds of students and faculty members pass each day, the tree began developing rot in the center of the trunk, and thus became a serious hazard.

Following advice from professional arborists, university officials decided to remove it. American elms have suffered from a number of severe problems, most notably Dutch elm disease. Since 1967, Professor Jay Stipes of the Plant Pathology, Physiology and Weed Science Department and a world-renowned Dutch elm disease expert, has been treating the tree with chemicals to keep the fungus in check. He and many students over the years have kept the tree relatively healthy.

Approximately 15 years ago, the university attached cables to keep the tree together, but it continued to deteriorate. However, there are plans to replace the tree with new elms that grow rapidly and are resistant to Dutch elm disease.

Site shows jobs hinder students

By Jean Elliott

Kusum Singh, a professor in educational leadership and policy studies, questions the belief that part-time jobs benefit high-school students.

Her research, which was published in The Journal of Educational Research, suggests that students who work more than 20 hours per week take fewer math and science courses. Those students also perform more poorly on tests in those subjects than students who work fewer hours.

The unusually large study looked at more than 26,000 sophomores and seniors from about 1,000 high schools nationwide. It examined the impact part-time work had on students’ course-taking and their achievement on math and science standardized tests. Even when socio-economic status and previous educational achievement were taken into account, jobs still had a “significant negative effect” on course work and achievement in math and science.

“The first 15 hours of work didn’t seem to matter,” Singh said. “But after that, when students are working 20 hours or more, it starts interfering with school performance.”

The number of high-school students holding part-time jobs has risen steadily over the past two decades. Forty-two percent of high-school seniors, 33 percent of juniors, and 15 percent of sophomores worked part time in 1994, according to the U.S. Bureau of Labor Statistics. The United States is one of the few industrialized nations where adolescents commonly both work and attend school.

American students’ performance on science and math tests has lagged compared with that of other countries—an often-cited reason for education policymakers.

Singh’s study, like several others, found no evidence that students suffer academically if they limit work to under 15 hours a week. Some researchers suggest that when a high percentage of students at a school hold part-time jobs, the school’s teaching and learning atmosphere shifts because teachers begin to lower their expectations for student performance.

Singh believes a more critical look at the issue is needed. “The common wisdom says work is good for children, but that is more theoretical than empirical,” she said.

Student death notice

Cory J. Keeling, Pamplin College of Business.

SHELTON

Continued from 1

SHELTON

Continued from 1

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ENGINEERS

Continued from 1

each other without communicating data during the design process,” Watson said. “As system complexity grows, this communication becomes a bottleneck, and the time required for high-fidelity subsystem simulations pass each day, reducing the subsystem evaluation time and improves the concurrency of the global design process.

“ Innovative and radical approaches to large-scale optimal design are being explored, both theoretically and empirically,” Watson said. “Computational paradigms such as global/local optimization and cellular automata (models or approaches to computation), which are unproven but hold considerable promise for implementation on massively parallel computers, will be adapted to engineering design problems.”

“This project is interesting because it involves both mathematical theory and engineering experiments,” Watson said. “Computer-science students are excited about working on a