National Broadcast a First for Carnegie Mellon

Carnegie Mellon hosted a recent installment of CNBC’s “Meeting of the Minds” series, which focused on manufacturing. The show, hosted by Maria Bartiromo with guests ranging from government leaders to business leaders, is available online to watch at the Piper+ at www.cm.edu/news/news-notes/piper/index.shtml. Read more about the show and the students who interned for the day on page seven.

Survey With Your Fries?

Research Café Opens Downtown

Shilo Raube

Food court dining became a little more interesting last month with the grand opening of the Carnegie Mellon Research Café, a behavioral decision research lab on the second floor of Fifth Avenue Place. Now, instead of grabbing something to eat and heading back to work or going shopping, downtown workers and visitors can earn money or gift cards for participating in studies on decision making, such as consumer spending and saving, health behaviors like dieting and smoking, and what causes happiness.

“It’s a win-win situation; we learn from participants, and most report that they find the experience very interesting and often eye-opening — something to talk about with friends,” said George Loewenstein, a professor of economics and psychology.

Abby Houck

The Carnegie Mellon community will continue its tradition with a “Day On, Not a Day Off” to honor the legacy of Martin Luther King Jr. on Monday, Jan. 18.

The celebration kicks off at noon with a community collage and choral tribute in Kirr Commons, University Center, featuring the talents of students from the schools of Drama and Music. Following the performances, President Jared L. Cohon will deliver his annual State of Diversity Address in McConomy Auditorium.

Beginning at 1:30 p.m. in Rangos Ballroom, winners of the Martin Luther King Jr. Writing Awards, including students from local high schools and Carnegie Mellon, will read personal narratives about their individual experiences with racial difference or their reflections on King’s legacy. Carnegie Mellon’s Creative Writing program, its Division of Student Affairs and the Office of the President are co-sponsoring the contest. Children’s programs will begin at 2 p.m., and a variety of exhibits and service projects will take place in the University Center throughout the afternoon.

At 2:30 p.m., the President’s Diversity Advisory Council (DAC) will host a Community Conversation to gather feedback on a document drafted this year titled “A Guiding Principle for University Culture.” The document focuses on “bringing together talent that is broadly representative and maintaining an environment that fosters meaningful and authentic exchanges, which will engender in all of us a global perspective and add to our students’ knowledge and skills.”

Everett Tademy, secretary of the

Continued on page five
Silverstein and Vaughan recently recruited upperclassmen who had completed their military service to participate in two types of panel discussions. The first panel, conducted entirely in Korean, targeted students who had yet to complete their military service requirement. The upperclassmen described different military positions, explained academic and social considerations for taking a leave of absence, and shared advice for overcoming challenges. In its pilot year, only South Korean students from the Tepper School of Business were invited. This past November, a discussion was open to any South Korean student enrolled at Carnegie Mellon.

Organizers and panelists hoped that younger Korean students would benefit from the advice of the “bok-haak-sang.” Jaehyung Lim, a business administration major, said the term is used to describe South Koreans who have returned from military duty.

Another panel targeted faculty and staff across the campus interested in helping students through transitions and challenges associated with military service. The panel was part of the spring 2009 Student Success Seminar sponsored by the Division of Student Affairs.

“Our Korean students have improved and improved the experience of future students by sharing information and spreading awareness to people who can be great resources,” Silverstein said. “The presentation elucidated unique needs and considerations for advising Korean male students.”

In many instances, Korean students attending Carnegie Mellon complete their first two years of undergraduate study before entering the military. Students often complete their core course requirements before returning to Korea, although timing depends on the individuals’ major and personal preferences.

Lim enrolled at Carnegie Mellon in 2004 and completed his service with the Korean Augmentation to the U.S. Army (KATUSA) between 2006 and 2008. He plans to complete his undergraduate degree in May.

“Somewhere may say that military service is a waste of two years,” he said. “But I feel that any experience has something to learn from. I learned a lot about responsibility, and I really enjoyed the experience.”

As a sergeant in KATUSA’s Civil Military Operations, Second Infantry Division, Lim served as a translator for the division commander and completed outreach projects to build relationships between South Korean citizens and the U.S. military. He also was trained to guide civilians to safety in the event of conflict or natural disaster while at Camp Red Cloud in Uijeongbu, South Korea.

One of the most moving experiences for Lim involved planning a memorial service for two young girls who were accidentally struck by a U.S. military vehicle in 2002. Each year, members of the U.S. military and KATUSA visit the girls’ parents for the memorial service and assist with harvesting crops on the family’s farm. “The parents were very kind to us,” Lim said.

Keum-Jin Lee, a junior business administration major, returned from military service this fall. He spent six months as a public service staff member in charge of the Nowon-Gu satellite office of the Department of Welfare for Families. His roles ranged from matching elderly individuals and low-income families with services to repairing the building’s air conditioning.

“It was a good rest from home work,” Lee said. “But I also had to use my free time for my future’s benefit.”

Lee said he dedicated his free time to making lists, reviewing his studies and catching up on current events. He also taught an SAT prep course for high school students. Lee’s military requirement was six months, because his father had achieved the rank of an honorod soldier. Prior to returning to Carnegie Mellon, Lee spent six months on a mission trip in Cambodia and Vietnam.

Lim and Lee acknowledged that their assignments were quite different from individuals who are placed in dangerous environments such as the demilitarized zone between North and South Korea. Lim lived in dormitory-style housing with privileges to leave the base in the evenings and on weekends, while Lee lived on his own. Although the students were able to spend some free time with friends and family in Korea, they felt disconnected from Carnegie Mellon and Pittsburgh.

Feedback from students like Lim and Lee helped Silverstein understand the importance of keeping students informed about campus news, and she began to forward the weekly 8½ x 11 News to students on military leave. She said knowing about the installation of “Walking to the Sky” and the new smoking policy helped students feel more connected to the university.

Returning to Carnegie Mellon also presents South Korean students with logistical, academic and social challenges. Linda Gentile, director of the Office of International Education, encourages students to get in touch with her department at least three to four months prior to returning to campus. “Many students who take a leave of absence don’t see themselves as new students however, they are required to complete paperwork for visas and enrollment that is much like being a new student.”

South Korean students often find it difficult to retain their English skills while completing military service. Upperclassmen advise peers to take courses that require a high level of English language proficiency before completing military service. Gentile and Silverstein refer students who struggle with language and study skills upon their return to resources such as the Intercultural Communication Center, the Carnegie Mellon Academic Resource Center and Academic Development.

Re-establishing social connections also is critical to “bok-haak-sang.” In many cases, classmates and friends have graduated from Carnegie Mellon, compelling students to create new bonds.

“Many students feel discouraged when they return,” Lee said. “They feel a gap between themselves and other students.”

Lim said that he arrived back in Pittsburgh with the address of an apartment that a friend arranged for him. The friend had since graduated and moved to a different city. Upon arrival, he had no cell phone, television or Internet, and he had no idea which of his friends, if any, were still living in Pittsburgh.

“I am a social person,” he said, “and it was hard eating alone for the first time in my life.”

Both students agreed that the best way to transition back into the social flow of campus is to be involved in activities such as residence life, student organizations or a local church.

Although many South Korean students who served on the panel discussions were not close friends before completing military service, sharing their common experiences upon returning to campus has been beneficial. “We’ve become very close friends,” Lim said. “We stick together.”
Music once banned by the Nazi regime echoed throughout Carnegie Music Hall in November. Under the direction of Maestro Ronald Zollman, the Carnegie Mellon Philharmonic performed powerful works by well-known and long-forgotten European-Jewish composers such as Mahler, Schulhoff and Schoenberg.

The performance was part of the Pittsburgh Ballet Theatre’s Light/The Holocaust & Humanity Project, a month-long collaborative effort with a variety of Pittsburgh organizations that created educational programming to inspire dialogue about the Holocaust.

Noel Zahler, head of the School of Music, said the concert emphasized the role of musical compositions as historical legacies.

“Presenting this music is just one more way to reaffirm the important role music plays in the lives of individuals, regions and the global community,” Zahler said. “Many people who had been victims of genocide still performed and composed music, and those who witnessed the atrocities from afar also reacted musically. Bringing these works to life for a new generation is our obligation.

Zahler gave the evening’s opening remarks, and introduced special guests Sandy and Edgar Snyder. The Snyders have sponsored the Holocaust Center of Greater Pittsburgh’s annual Kristallnacht commemoration for nearly a decade.

Lastly, Kristallnacht survivor Ruth Drescher took the stage, sharing her experiences and reminding everyone to never forget or minimize the great tragedy of the Holocaust.

A hush fell over the crowd as the concert opened with Bohuslav Martinů’s “Memorial to Lidice,” an emotive piece dedicated to the small Czech town which debuted just five days before Kristallnacht, the hour when Jews were rounded up for deportation. The piece memorialized the millions of lives that will forever be disrupted or cut tragically short.

Kristallnacht marked the turning point from discrimination against Jews to outright genocide of an entire segment of society. At the philharmonic’s concert, each survivor’s personal story was punctuated by sorrow and loss.

Survivor Ruth Markovitz was among those in the audience. In 1941, her mother placed her on a train in order to spare her young daughter’s life, but the two sadly were never reunited. Though there may be political, racial, religious or cultural divides among us, Markovitz reflected on the universality of the human race.

“Whoever gets cut, the blood runs red,” she said simply. “It doesn’t matter what color you are or what religion you are.”

For all who attended, the meaning of the tragedy and the triumphs of survival were punctuated by the storytelling of the transcendental musical works that memorialized the millions of lives forever disrupted or cut tragically short by the Holocaust.

In the audience of more than 800, the evening held particular meaning for the 30 Holocaust survivors in attendance. Some who were children or infants 71 years ago could not recall the horrific events of Kristallnacht, the “Night of Broken Glass,” in which Nazi riots erupted in Jewish ghettos across Austria and Poland.

That night, Jewish-owned businesses were looted, synagogues were destroyed and burned, and Jewish homes were assaulted. Many people were killed, and thousands were physically attacked, arrested and sent to concentration camps.

Kristallnacht survivor Ruth Drescher shared her experiences and reminded the audience to never forget the Holocaust.
Seniors Lead Soccer Team
To Sweetest Season

Andrea James

The men’s soccer team enjoyed one of the best seasons a team sport has ever had at Carnegie Mellon. This fall marked the first time in school history the Tartans advanced to the Sweet 16 round of the NCAA Division III Soccer Championships, a tournament in which they were selected to play host to first and second round competition as well as Sweet 16 sectional play.

Under Head Coach Arron Lujan, the team earned an at-large bid to the playoffs after posting a 14-2-1 regular season record and finishing atop the University Athletic Association (UAA) standings for the first time since 2004. Among the 14 wins were six straight shutout victories, as they held their opponents scoreless in 584 consecutive minutes.

The Tartans, ranked 10th in the nation, defeated Thomas More College 2-1 in the sectionals. Despite the loss to Calvin College, the Tartans showed a crowd of more than 750 how talented and determined they were.

Senior forward Ricky Griffin made history with his 19th goal and 47th point of the season, making him the program’s all-time single season point leader. Fellow senior Ryan Browne scored three goals in the postseason and was second on the team with 10 goals and 30 points. The pair was named Academic All-Americans by the College Sports Information Directors of America for the second year along with seniors Austin Good, Jon Hall and Keith Hasheff.

Hall made history of his own, earning ESPN the Magazine Academic All-America of the Year honors for the second straight season, a feat never accomplished in the College Division (Division II, III and NAIA) by a men’s soccer athlete. Hall is a business administration and finance major with 4.0 grade-point average.

Griffin was named UAA Player of the Year for the second time after leading the conference in goals and points for the second year. More accolades are expected to roll in for Griffin and Browne, who were named to the All-America and All-Region teams in 2008.

Although 10 seniors on the team will graduate this spring, next year looks bright for the Tartans as a core of freshmen and sophomores are waiting in the wings to step into prominent roles.

Art Park Planned on Forbes

Sen. Bob Casey advocates for greener government

Sen. Bob Casey greets Ed Rubin, the Alumni Professor of Environmental Engineering and Science, during a recent campus visit. Rubin is a member of the U.N. Intergovernmental Panel on Climate Change, which shared the 2007 Nobel Peace Prize with former Vice President Al Gore. During Casey’s visit, the senator delivered an address on climate change and innovation. “Carbon pollution threatens our future and human life itself,” Casey told the crowd in Rashid Auditorium. He emphasized that green energy initiatives will improve the environment and national security and increase job opportunities.

Watch his address at the Piper+ at www.cmu.edu/news/news-notes/piper/index.shtml. Casey’s visit was sponsored by the Steinbrenner Institute for Environmental Education and Research.

Art Park Planned on Forbes

A new green space will be coming to Forbes Avenue this spring. Over the next few months, the 4621-4628 lots of Forbes Avenue will be transformed into a temporary “Art Park,” where Carnegie Mellon students will enliven the busy Oakland street with art and environmental projects. School of Art Professor Bob Bingham will provide direction for the project, with the plan of having the space ready by commencement. The buildings in the block were demolished to make room for the green space. The university purchased the land earlier this year, with long-term plans to further develop Forbes into an educational, research, business and cultural corridor.

Upcoming Events

Hunt Institute Exhibition
“Botanical Environmental Expressions in Art, the Aliva and Isaac M. Sutton Collection” represents one of the finest private collections of contemporary botanical art in America. The exhibition will be on display from 9 a.m. to noon and 1 to 5 p.m. Monday, Friday, and 1 to 4 p.m. Sunday on the 5th floor of the Hunt Library.

Martin Luther King Jr. Day
Monday, Jan. 18
See the cover story for more information.

Martin Luther King Jr. Day Open Staff Meeting
Open to all staff members
3 p.m., Thursday, Jan. 21
Gates Center 6115

Staff Council General Body Meeting
Open to all staff members
Noon – 1 p.m., Thursday, Jan. 21
Gates Center 6115

University Lecture Series
Alan Houston, a political science professor at the University of California San Diego, will discuss “New Discoveries in the Life of Benjamin Franklin.” See page 12 for more information.

4:30 p.m., Wednesday, Jan. 20
McConomy Auditorium, UC

University Lecture Series
Jaward Chris Hedges, a senior fellow at The Nation Institute, will lecture on “The End of Literacy and the Triumph of Spectacle.”
4:30 p.m., Thursday, Jan. 21
Porter Hall 100

McConomy Auditorium, UC
More Than Buildings

LEE WEAVES VISION FOR SOUTH AUSTRALIA’S BUILT ENVIRONMENT

Architectural Professor Laura Lee said the future of Adelaide, Australia’s built environment lies in integrated strategy. “I want to play to South Australia’s unique strengths and how those get translated into the built environment. I want to see real outcomes. The potential here is extraordinary and the work goes far beyond the time you are here,” said Lee, who recently completed a term in Adelaide as the 16th Thinker in Residence.

Every year the Premier of South Australia, Mike Rann, invites two or three world-class thinkers to Adelaide to live and work. The Thinkers spend two to six months assisting South Australia to build on its climate of creativity, innovation and excellence. The Thinkers in Residence provide strategies for future development in the arts and sciences, social policy, environmental sustainability and economic development.

“South Australia is a very creative environment. It is an incubator for ideas. It’s a place where it’s very easy to collaborate,” Lee said.

Lee said she sees herself as more of a connector than a creator, as part of a team taking on ideas from global and local designers, city planners, business people and the public and feeding them back to the community.

“The integrated design strategy that we put forward is a collaboration between the city and state government and will look at quality of life issues that go beyond individual developments to a real collective consciousness about the city and space,” Lee said.

“And by large and most people love the Central Market — it is a quintessential experience in Adelaide. If you could extend the feeling of that space into other spaces they would say ‘yes, I want more of that.’”

Lee said it’s important that design is about creating places and spaces where people feel a sense of belonging, connection, identity and value. “Right now there is a lot of development activity — but the design layering, which is qualitative, hasn’t been considered. We need to try to leverage what the planning document guidelines suggest so that it’s about quality and innovation.

“The advantage of Adelaide is that it has great bones. It has inherited one of the world’s premium examples of city design,” Lee said.

...continued from page one

Research Café Opens Downtown

Carnegie Mellon|Portugal Partnership

In a public report, the committee described the partnership as “a visionary initiative” and noted that impressive progress has been made since its previous visit in November 2008. ICTI offers professional masters’ degrees in human-computer interaction, information networking, information technology, information security and software engineering. Doctoral degrees are offered in computer science, electrical and computer engineering, engineering and public policy, language technology, applied mathematics, software engineering, and technological change and entrepreneurship.

The ICTI program is led by directors João Barros and José M. F. Moura, located in Portugal and Pittsburgh, respectively. ICTI is an international “virtual” institution funded by the Portuguese government through the Fundação para a Ciência e a Tecnologia (FCT), an organization within Portugal’s Ministry of Science that funds scientific research and activities. Four of the five ERC members were in attendance during the evaluation in September: Sir John O’Reilly, vice-chancellor of Cranfield University in the United Kingdom; Tariq Durrani, University of Strathclyde Glasgow, Scotland; Joel Moses of the Massachusetts Institute of Technology; and Luigia Aiello of the Università di Roma La Sapienza, Italy.

To learn more about the progression of the program, the ERC members met with faculty, students, alumni, principle investigators, managers and entrepreneurs. The most notable additions to the program included new ties to industry affiliates in Portugal. These affiliates include the Madeira — Inter- active Technologies Institute (Madeira — ITI), as well as two other centers of expertise in software engineering and cyber security, which are important areas for further development in the Information Communication Technology (ICT) sector in Portugal.

Currently, 10 corporate affiliates provide financial support to more than 45 students in the partnership, and many of these students have obtained work with these companies upon graduation. In total, the partnership has more than 39 industrial partners.
President Cohon Meets With Staff in Open Forum

Bruce Gerson
At the Staff Council-sponsored Open Forum on Monday, Nov. 30, President Jared L. Cohon began with remarks about the proposed city tuition tax on students, and the university’s budget. After his opening remarks, he fielded questions from about 50 people in attendance on issues ranging from budget reductions and salary increases to the transition to bi-weekly pay for non-exempt employees and the recent land acquisitions along Forbes Avenue near Craig Street.

With regard to the budget, Cohon reported that the university ended fiscal year 2009 (July 1, 2008 to June 30, 2009) with a surplus, a very good result compared to the budgeted deficit. He attributed the outcome in part to cost-saving measures taken throughout the university. Cohon also reported that the endowment lost 26.7 percent last year, which was in line with forecasts and with the investment results at peer universities. Due to endowment spending rules, last year’s endowment losses will affect the operating budget in the current year and for at least two more years. He explained that this was the reason for calling for budget cuts of 5 percent and 10 percent in academic and administrative units, respectively, over the three fiscal years 2010, 2011 and 2012. Cohon expressed the university’s opposition to the proposed tuition tax. He provided some recent historical background on the relationship between Pittsburgh’s non-profit institutions and the City government.

In response to a question about salary increases for next year, President Cohon said that increases are budgeted for next year. He took the opportunity to talk about recent press stories about his salary. Cohon said that, contrary to the impression given by the press, he did not receive a raise this year, consistent with the salary freeze. The raise that was reported was from two years ago and coincided with his reappointment to a third term. He added that his salary is below the 25th percentile in the comparison group that the Board of Trustees uses when setting his salary.

Several questions arose concerning the transition to bi-weekly pay for non-exempt employees. One question was about the timing of the transition and another was about the distribution of payroll deductions. Barbara Smith, assistant VP for Human Resources, said it was decided that during the Open Enrollment period for benefits would be a good time to make the transition, and that deductions would be taken over 24 pays, rather than 26. She said it was easier to calculate deductions over 24 pay periods and that it allowed for a smoother transition. Cohon noted that non-exempt bi-weekly pay employees would receive $400 in December to mitigate the effect of the transition.

In response to questions about the recent land acquisitions along Forbes Avenue near Craig Street, President Cohon said a master planning process that will include the campus community and neighborhood representatives will determine specific plans. He said the buildings along the south side of Forbes, except for PNC Bank, were in the process of being demolished and that the university has submitted a proposal to the city to establish an “art park” for the short-term, where students can display their works of art.


H1N1 Modeling at Pittsburgh Supercomputing Center Honored

Michael Schneider
The Pittsburgh Supercomputing Center (PSC) has received the 2009 HPWire Reader’s Choice Award for Top Supercomputing Achievement for scientist Shawn Brown’s work in modeling the spread of the H1N1 virus. The award recognized the PSC’s work as part of the National Institutes of Health’s Models of Infectious Disease Agent Study (MIDAS) project, which supports research to simulate disease spread and evaluate intervention strategies.

Brown modeled the spread of the H1N1 virus in various locales, including the United States, the Washington, D.C., metropolitan area, and Allegheny County. The modeling helps policy-makers and public-health officials to evaluate the effectiveness of mitigation strategies, such as vaccination and school closure. “We can build experiments in the computer that you can’t do in real life. We can build a population and infect them with the flu. And then look at different mitigation strategies like vaccinations or anti-virals or social distancing and see how that affects the disease spread,” Brown said in a recent WTAE-TV report on the project.

The computer program can illustrate how measures like vaccinations, closing schools and using drugs like Tamiflu will impact the spread of H1N1.

Programmers are sharing this information with local government leaders and the Health Department in hopes of improving control of the disease. “Of all the work I’ve done in the supercomputing center, and I’ve done a lot of different things, this is certainly one that’s had the most social benefit,” Brown said.

Brown collaborates with the Pittsburgh MIDAS Center of Excellence, led by Donald Burke, M.D., of the University of Pittsburgh Graduate School of Public Health. This group is studying fundamental questions about the behavioral, environmental and evolutionary factors underlying infectious disease epidemics to develop real-time models for particular localities, cities and states. HPWire is a news service for high-performance computing (HPC) and computational science that serves an international community.

Gadgets and Gizmos

**INTEL OPEN HOUSE SHOWCASES PROJECTS**

Brian Kirby, a computer science research associate, watches Emily Hart, a student in Electrical and Computer Engineering, demonstrate **Blinky Blocks** during **Intel Research Pittsburgh’s recent open house**. **Blinky Blocks**, which are Lego-like pieces that contain tiny computers, communicate and change color when they are linked in different ways. They can be used as educational and research tools for students learning to program distributed systems of computers, such as the power grid or the Internet. The project was one of several shown by the Claytronics team, which combines modular robotics, systems nanotechnology and computer science to create the dynamic, three-dimensional display of electronic information. More than 58 projects were showcased in conjunction with Carnegie Mellon and the University of Pittsburgh.
Students Help CNBC Produce Broadcast from Wiegand Gym

Heidi Opdyke

For one night only Wiegand Gymnasium’s basketball courts were transformed into an elaborate television studio to host a national discussion on manufacturing. This was the first time a national broadcast has been filmed on campus.

CNBC chose the venue to tape “Meeting of the Minds: Rebuilding America,” which first aired on the network on Dec. 2. Guests on the show included: Daniel R. DiMicco, chairman, president and CEO of Nucor Corp.; John Engler, president and CEO of the National Association of Manufacturers; Bill Ford, executive chairman of Ford Motor Co.; Leo Gerard, international president of the United Steelworkers; Jeff Immelt, chairman and CEO of GE; and Hilda L. Solis, U.S. Secretary of Labor.

“Carnegie Mellon has been nothing but fantastic with helping us with the setup and preparation for this,” said Mary Duffy, senior executive producer of strategic programming and development at CNBC. “That first vibe you get when you partner with someone on production, it’s very telling.”

Carnegie Mellon staff from the University Center, Computing Services, Events, Media Relations, Police and Security were among those who contributed to the success of the event.

More than 80 CNBC crew members from as far away as Texas and New York began arriving days before the event. Additional staffers were hired from Southwest Pennsylvania, Ohio and West Virginia. Over the course of Thanksgiving weekend, the stage was built and an enormous light rig was hung from the rafters. Workers installed a boom camera on the gym’s balcony, which later swung above the crowd as softly lit curtains covered the basketball hoops along the perimeter. The crew worked 12-14 hour days to make sure everything was just right, and the setup was struck hours after the taping.

More than 700 audience members, including a bus full of steelworkers from Warren, Ohio, watched the taping that lasted a little more than an hour. Duffy warned the audience up prior to the panelists arriving, while keeping an eye on final details. In the time before the show, Carnegie Mellon President Jared L. Cohon greeted the panelists and other guests in Danforth Lounge. The Conna Room also was transformed for the event. An editorial team was at work on production, and equipment filled the room.

Duffy recently wrapped up another special project involving Warren Buffett and Bill Gates at Columbia University, but this was the first time CNBC has filmed the “Meeting of the Minds” series outside of CNBC Global Headquarters in Englewood Cliffs, N.J.

“There’s no better place to come than Pittsburgh, it’s the heart of the steel country, and it’s also an interesting city because of the transformation it’s undergoing right now with meds and eds,” Duffy said. “I think there’s a lot of history here. With Carnegie Mellon being one of the leading universities for engineers and the future, we wanted to get the students’ point of view. They’re going to be the next generation, they’re going to be our future, so we wanted to be here. That was a request of the guests, too, to come here and really listen to what students have to say.”

Students were among those who asked questions of the panelists ranging from union issues to trends on outsourcing. They also worked behind the scenes. Eighteen students served as CNBC interns for the day.

“It’s like a big orchestra. That’s why the students are so important today as part of the process for us,” Duffy said. “It’s very inspiring, when you come back to school and you see these students are so optimistic and full of hope. This next generation is going to be one of the smartest bunch of kids that we’ve ever seen, I think. They’re just so plugged in and they’re getting all the resources they need here. When I talked...
Electrifying Idea

NOURBAKHSH WORKS TO CONVERT COMMUTER VEHICLES TO RUN ON RENEWABLE ENERGY

Most people have vivid memories of some car from their youth, whether it be a tricked-out Honda Civic or a beat-up VW Minibus. For Illah Nourbakhsh, those memories are stirred by a sleek, solar-powered car called the SunSurfer that he helped build as an undergraduate at Stanford University in 1988.

Driving down the road with one eye on the ammeter, Nourbakhsh was impressed that the car was able to generate all of its own power, either from solar cells or from regenerative breaking of the electric motors. And, having helped build it from the ground up, he knew just how simple an electric car could be.

Today, Nourbakhsh is an associate professor of robotics and proud owner of an electrified 2001 Toyota Rav4 that he uses for most of his driving. He is convinced that electric cars are practical as commuter vehicles and hopes to prove it with a new project from his CREATE Lab, called ChargeCar.

Nourbakhsh and co-principal Greg Podnar hope to demonstrate that gas-powered cars can be cost-effectively converted to electric cars, using local mechanics and commuter data from drivers from around the world. A newly converted 2001 Scion xB is serving as a test bed.

Though car companies are still looking for batteries powerful and cheap enough to use in a multi-purpose electric production car, Nourbakhsh and Podnar say a little help from artificial intelligence and a device called a supercapacitor should enable existing batteries to handle the load for the distance of a commute.

“Most electric cars today are being designed with top-down engineering to match the performance of gas-powered cars,” Nourbakhsh said. “Our goal is to revolutionize urban commuting by taking a different approach — by first analyzing the needs, conditions and habits of the daily commutes of actual people and then using this ‘commute ecology’ to develop electric vehicles suited to each unique commute.”

People are invited to store their daily travel data via GPS and upload it to the project site, http://chargecar.org. In addition to saving the data in a data base accessible to all researchers, the site also can show each individual the energy cost of gasoline vs. electricity for their commute.

The site also can calculate how much wear and tear on batteries could be saved by using a supercapacitor, part of a “smart power management” architecture that is key to the ChargeCar project. Unlike batteries, supercapacitors can charge and discharge at very high currents and thus can improve the vehicle’s responsiveness, while reducing the charge/discharge cycling that shortens battery life.

“Many people have talked about using supercapacitors as buffers on a battery, but we also will use artificial intelligence to manage how power is discharged and stored,” Nourbakhsh said. “Based on a driver’s route and habits, the smart power management system will decide whether to draw power for the electric motors from the batteries or the supercapacitor and decide where to store electricity produced by the regenerative breaking system as the car slows down or goes down a hill.”

Determining the optimal means of managing power will be one of ChargeCar’s primary goals. The researchers calculate that an intelligent electric car controller could recapture 48 percent of the energy during braking and that a supercapacitor could reduce 56 percent of the load on the batteries and reduce heating of the batteries — which shortens battery life — by 53 percent.

“The No. 1 cost of electric vehicle ownership is the batteries,” Nourbakhsh said. “Smart power management will save money initially because it pairs a low-cost battery pack with a small supercapacitor. And it will continue to save money by increasing efficiency and extending battery life.”

Math Honors Kinderlehrer, Kramkov

Two esteemed members of the Department of Mathematical Sciences have been honored with named professorships. David Kinderlehrer received the Alumni Professorship in Mathematical Sciences and Dmitry Kramkov received the Mellon College of Science Professorship in Mathematical Finance.

“Named professorships are the highest accolade a university can grant to its faculty members. It is a recognition of all a faculty member has done as a researcher, a teacher and a university citizen,” said Carnegie Mellon President Jared Cohon.

The Alumni Professorship was created by the university to honor some of its most esteemed faculty members for their contributions in their respective fields; the Alumni Professorship in Mathematical Sciences was founded in 1992. Kinderlehrer, a professor of mathematical sciences and materials science and engineering, is a leader in the field of applied analysis. He is the co-founder of the highly respected Center for Nonlinear Analysis and the first mathematician to join the Materials Research Science and Engineering Center (MRSEC). He is best known for his contributions to advancing materials science research, in particular as part of the team that discovered a paradigm-changing characterization of microstructure.

The newly established Mellon College of Science Professorship in Mathematical Finance recognizes the department’s preeminent position in mathematical finance and honors a faculty member who possesses an outstanding reputation in that field. Kramkov, a professor of mathematical sciences, is a leader in computational finance, especially as it relates to problems of hedging and optimal investment in incomplete financial models. He is highly regarded for his work on optimal decomposition for supermartingales, asymptotic elasticity condition on utility functions and risk-tolerance wealth processes. He is the co-author of the Kramkov-Schachermayer theorem that addresses the duality of portfolio optimization.
Vituccio's Documentary Premieres at Three Rivers Film Festival

**PITTSBURGH SOLDIERS PRASE THE UNIQUE PIECE ON THE IRAQ WAR**

Bruce Gerson

Ralph Vituccio's latest documentary is much different than any the award-winning filmmaker has produced before. It's a story of the ongoing Iraq War told by 15 Pittsburghers who served, survived and returned from the very hot, sand-filled, stench-ridden, bomb-blasting battlefields in and around Baghdad.

Vituccio didn't shoot any of the footage and he didn't conduct any of the interviews, but his masterful editing and storytelling skills he used to produce the vivid "In Service: Pittsburgh to Iraq" could be his finest work yet. The one-hour documentary tells the war stories of 12 local soldiers, two journalists and one government official. It features their voices, their thoughts, their memories and their video footage from Iraq. Vituccio says the film is about ordinary people enduring extraordinary circumstances.

"It's pretty perfect," said Dan Driscoll, who served in Iraq as an Army tank commander before enrolling in the master's degree program at Carnegie Mellon's Entertainment Technology Center (ETC).

Driscoll and several other Iraqi War veterans, two of whom were in the film, attended the Three Rivers Film Festival premiere of "In Service: Pittsburgh to Iraq" last month at the Regent Square Theater in nearby Edgewood.

"It gives the soldiers' voice. It's really intense. I love it. It's great, one of the best documentaries I've seen," said Daniel Connerly, who was in the film.

"It's the best documentaries I've seen," said Helen Gerhardt, who drove a tractor-trailer to deliver supplies to U.S. forces in Iraq, said she "deeply respected the work." She said the film "showed how the war affected all of us."

Vituccio, who teaches visual storytelling and is director of Media Development in Communications Design at the ETC, began work on the film about two years ago after "In Service" first debuted as a live multimedia presentation, featuring three video screens, live performers and soldiers reading from their war diaries. He served as media director for the show at the request of Jeff Carpenter of the Bricolage Production Company and Andrew Swenson of Pittsburgh Filmmakers. Carpenter conducted the interviews with the soldiers after they returned home to Pittsburgh.

"I had over 60 hours of interviews and footage and used maybe a third for the multimedia piece," Vituccio said. "I thought there was so much great material that I decided to work on it in the last two years to make it into a traditional documentary. The video the soldiers shot are behind-the-scenes stuff, which is pretty incredible."

In the film the soldiers, a photographer from Getty Images, a CNN reporter and a former Deputy Assistant Secretary of State chronicle their experiences — from learning of their deployment and arriving in Iraq, to avoiding gunfire, detonating Improvised Roadside Devices (IEDs) and killing insurgents.

"You really don't know what life is like until you're in a gunfight," says one soldier in the film. "Fear kicks in, goes away quickly and then adrenaline kicks in. It's a rush, an experience you've never experienced before."

Carpenter's brother, Scott, who served as deputy assistant secretary of state, tells the story of witnessing a captive Saddam Hussein being interrogated.

"He [Hussein] looked nervous and defiant. 'Why did you attack your people in Halabja?' he was asked. (Hussein used poisonous gas to kill thousands of Iraqis in Halabja, a Kurdish town in Iraq during the Iran-Iraq War in 1988.) And he simply said, 'They were traitors, they deserved to die,'" Scott Carpenter said.

Vituccio said he's happy with the finished product and plans to submit the film to other festivals.

"I showed actor Anthony Daniels (C-3PO in Star Wars) a rough cut and he said it was nothing like what you see on CNN," Vituccio said. "He said it shows you this whole other vision of what it's like to be in war. So, I'm happy with it. I think it's a pretty intense piece."

Vituccio has been at Carnegie Mellon for more than 25 years. He's developed, written and produced numerous award-winning films, videos, CDs, DVDs, Web sites and multimedia projects for Carnegie Mellon and corporate and commercial clients. A film and video production teacher at Pittsburgh Filmmakers, Vituccio has worked with Paul Goodman, the Richard M. Cyert Professor of Organizational Psychology at the Tepper School, on several of his documentaries that have aired on PBS.

Some of Vituccio's recent projects include "The Port of Philadelphia," a mini IMAX film for the Independent Seaport Museum; a synthetic interview with Abraham Lincoln for the National Civil War Museum in Harrisburg; and a second synthetic interview with Charles Darwin for the Carnegie Science Center.

IS Class Helps Steelers Quarterback's “In the Pocket” Event

Shilo Rauba

On the field, Pittsburgh Steelers quarterback Charlie Batch is known for his reliable and accurate throwing arm. Off the field, he’s known and recognized for his dedication to mentoring children through his Best of the Batch Foundation.

For the past two years, Batch has held the “In the Pocket” fundraiser to benefit Best of the Batch’s reading and computer literacy program. The event features Batch, his teammates and other local celebrities playing friendly games of ping-pong, pool and poker. However, everything from registration to game management and scoring was handled on paper — causing logistical difficulties from game queue management to real-time scoring.

To ensure that this year’s event ran more smoothly and showcased real-time results, Batch teamed up with the information systems (IS) application course — a senior-level course within the College of Humanities & Social Sciences’ Program. Students Thomas Flavin, Meredith Huffsmith, Phillip Pantalone and Amritha Prasad worked under faculty advisors Jeria Quesenberry and Larry Heimann to design and build an event scheduling system for “In the Pocket.”

The project team attended the third annual event in November and unveiled their work — a software application that registered and checked-in players, updated schedule changes, informed players of game times and displayed live results on a large, projected scoreboard.

"The project was a huge success," said Quesenberry, an IS assistant teaching professor. "In 12 weeks, the students met with the foundation’s leadership and delivered a customized and reusable application. A similar commercial software solution would have cost the foundation several thousand dollars, so by working with us, they were able to improve their event without spending money that could otherwise impact the lives of children. And, our students were able to take their classroom knowledge and apply it in a real world setting."

This semester a total of 15 IS teams created projects for clients, which were displayed during a presentation in early December. These projects give local non-profit clients made-to-order software solutions that they otherwise couldn't afford. It's a win-win situation," said Randy Weinberg, teaching professor and head of the Information Systems program.
Barth, McCartney Named to Eberly Family Professorships

Alison Barth and Brooke McCartney, both biological sciences faculty members, were named the most recent recipients of the Eberly Family Career Development Professorships in the Biological Sciences. The professorship, which was established in 1993, and divided into two chairs in 1997, was created to help retain, recruit and recognize exceptional biological sciences faculty in the Mellon College of Science.

“The intent [of these professorships] is to celebrate existing achievements, to inspire further achievements and to try to incentivize intellectual capital to remain in this region,” said Robert Eberly III at a reception for the recipients. “These chairs and these women really exemplify what we as a family hoped to achieve when we created instruments like these professorships.”

Barth, an associate professor and member of the Center for the Neural Basis of Cognition, studies plasticity in neurons. Her work focuses on understanding how experience transforms the properties of neurons to encode memory. She developed and patented the first tool to locate and characterize neurons activated by experience, a transgenic mouse called the fosGFP mouse. The mice have been licensed to every major pharmaceutical company in the United States and distributed to more than 80 researchers worldwide. Barth also conducts research on plasticity in the brain.

McCartney, an assistant professor, is a cell and developmental biologist who investigates the ways in which cells communicate with each other and how those cellular signals influence cell fate and the organization of the cytoskeleton during development. She studies the basic cellular functions of the human colon cancer tumor suppressor, Adenomatous polyposis coli (APC). Her research has revealed the mechanisms by which APC localizes in a cell, among other characteristics. These findings may provide new insights into cellular function during development and contribute to the understanding of APC’s role in colon cancer initiation.

MLK Jr. Day Activities Explore University Culture

President’s DAC and assistant vice president of Diversity and Equal Opportunity Services, said, “The implementation plan section of the draft document remains to be written through collaborative exchanges of the President’s DAC with the university community. We would like for this year’s Community Conversation to be one of many such planned exchanges.”

Later in the afternoon, the campus community will gather in the Purnell Center lobby to begin a candlelight march to the University Center. The march is an opportunity for the community to demonstrate support for civil rights and opposition to racial segregation.

Carnegie Mellon’s celebration will conclude with student speakers, Kristine McPherson, a senior in statistics and professional writing, and Francisco Santago, a junior in mechanical engineering, and a keynote address, “Nobody Knows de Trouble I’ve Seen,” by James H. Cone, the Charles A. Briggs Distinquished Professor of Systematic Theology at Union Theological Seminary in New York. The event begins at 5 p.m. in Rangos Ballroom.

An ordained minister in the African Methodist Episcopal Church, Cone focuses his research and teaching on Christian theology, with special attention to black theology and the theologies of Africa, Asia and Latin America, as well as 20th century European-American theologies. His current research focuses on the theological relationship between the cross and the lynching tree.

Cone is the author of 11 books and has received numerous honors and awards including eight honorary degrees and induction into the Arkansas Black Hall of Fame.

Updates regarding Martin Luther King Jr. Day will be posted at www.studentaffairs.cmu.edu/first-year/mlk/index.html.
First-year students from the College of Engineering kicked off their fourth annual U.S. Marine Corps Toys for Tots drive with a mobile World War II museum and a dove release to signify hope and peace.

“ Toys for Tots means a lot to me because it gives me the opportunity to give back some of what I have and give children a great holiday,” said Alex Eling, a member of the College of Engineering’s First-Year Advisory Board (FAB), a group that started raising money and collecting toys for the Toys for Tots program four years ago. The FAB is designed to help freshmen adjust to the rigors of college life. Other FAB team members this year include Sarah Zakrzeski, Yi Shi and Anisha Vyas.

“This year’s group has raised almost $300 toward a goal of raising the most for this event since its inception,” said Andrew Goldberg, a senior majoring in mechanical engineering. “Each year, the tradition grows stronger and each year’s FAB group continues to amaze me with their passion for doing this.”

Carnegie Mellon University Police assisted students in collecting toys during the drive. Students Bianka Roy and Sangita Sharma also collected gifts of lip- stick and cosmetics for the mothers and wives of injured U.S. Army soldiers who survived the recent tragedy at Fort Hood in Texas. Krista Troy Foster of Saks Fifth Ave. in Pittsburgh contributed specially packaged gifts for Carnegie Mellon’s new Lipstick and A Smile program.
Alan C. Houston was on the last item on his last day of his last European research trip for a book on Benjamin Franklin when he stumbled upon something unusual at the British Library.

“I had spent the day looking at events from Fort Duquesne, I was trying to dot all the Is and cross all the Ts, and make sure that nothing had been missed in the published record,” said Houston, a professor in the Department of Political Science at the University of California San Diego.

What he uncovered were letters regarding the march of General Braddock toward Fort Duquesne, at what is now Point State Park in Pittsburgh, in 1755. Braddock never made it to Fort Duquesne; he was fatally wounded in a battle with French and Native Americans a few miles short of his destination.

“The very first thing I looked at was a letter from Benjamin Franklin to the Secretary of the Governor of Maryland,” said Houston who was recently Secretary of the Governor of Maryland. “He’s a terrifically important political leader, an intellectual of the highest order and, unlike some of the other founding fathers, he had a great sense of humor.”

“Part of what is exciting is that working on Benjamin Franklin is the breadth and depth of his interests and accomplishments. It is extraordinary,” Houston said. “He’s a terrifically important political leader, an intellectual of the highest order and, unlike some of the other founding fathers, he had a great sense of humor.”

“He’s a terrifically important political leader, an intellectual of the highest order and, unlike some of the other founding fathers, he had a great sense of humor.”

“Part of what is exciting is that working on Benjamin Franklin is the breadth and depth of his interests and accomplishments. It is extraordinary,” Houston said. “He’s a terrifically important political leader, an intellectual of the highest order and, unlike some of the other founding fathers, he had a great sense of humor.”

“Part of what is exciting is that working on Benjamin Franklin is the breadth and depth of his interests and accomplishments. It is extraordinary,” Houston said. “He’s a terrifically important political leader, an intellectual of the highest order and, unlike some of the other founding fathers, he had a great sense of humor.”

Outside of Franklin’s interest in Pennsylvania’s participation in the British Empire, the letters offered Houston new details about how local farmers and military troops behaved during the era.

A political theorist, Houston’s research focuses on the development of liberal, republican, and democratic ideas in Europe and America. His interests also include legal theory and constitutional law. He is the author of “Algernon Sidney and the Republican Heritage in England and America,” for which he won both the 1990 Leo Strauss Award and the 1992 Foundations of Political Theory Book Award, and co-editor (with Steve Pincus) of “A Nation Transformed: England After the Restoration.” He is the editor of “Franklin: The Autobiography and Other Writings on Politics, Economics, and Virtue;” his most recent publication is “Benjamin Franklin and the Politics of Improvement” (Yale, 2008). He has been a fellow in the Society of Fellows at Columbia University and the Center for Human Values at Princeton University. He also has received grants and fellowships from the National Endowment for the Humanities, the American Philosophical Society and the University of California. He is currently writing a book on the Levellers.

HEIDI ODPYKE

Alan C. Houston was on the last item on his last day of his last European research trip for a book on Benjamin Franklin when he stumbled upon something unusual at the British Library.

“I had spent the day looking at events from Fort Duquesne, I was trying to dot all the Is and cross all the Ts, and make sure that nothing had been missed in the published record,” said Houston, a professor in the Department of Political Science at the University of California San Diego.

What he uncovered were letters regarding the march of General Braddock toward Fort Duquesne, at what is now Point State Park in Pittsburgh, in 1755. Braddock never made it to Fort Duquesne; he was fatally wounded in a battle with French and Native Americans a few miles short of his destination.

“The very first thing I looked at was a letter from Benjamin Franklin to the Secretary of the Governor of Maryland,” said Houston who was recently Secretary of the Governor of Maryland. “He’s a terrifically important political leader, an intellectual of the highest order and, unlike some of the other founding fathers, he had a great sense of humor.”

“Part of what is exciting is that working on Benjamin Franklin is the breadth and depth of his interests and accomplishments. It is extraordinary,” Houston said. “He’s a terrifically important political leader, an intellectual of the highest order and, unlike some of the other founding fathers, he had a great sense of humor.”

“Part of what is exciting is that working on Benjamin Franklin is the breadth and depth of his interests and accomplishments. It is extraordinary,” Houston said. “He’s a terrifically important political leader, an intellectual of the highest order and, unlike some of the other founding fathers, he had a great sense of humor.”

“Part of what is exciting is that working on Benjamin Franklin is the breadth and depth of his interests and accomplishments. It is extraordinary,” Houston said. “He’s a terrifically important political leader, an intellectual of the highest order and, unlike some of the other founding fathers, he had a great sense of humor.”

Outside of Franklin’s interest in Pennsylvania’s participation in the British Empire, the letters offered Houston new details about how local farmers and military troops behaved during the era.

A political theorist, Houston’s research focuses on the development of liberal, republican, and democratic ideas in Europe and America. His interests also include legal theory and constitutional law. He is the author of “Algernon Sidney and the Republican Heritage in England and America,” for which he won both the 1990 Leo Strauss Award and the 1992 Foundations of Political Theory Book Award, and co-editor (with Steve Pincus) of “A Nation Transformed: England After the Restoration.” He is the editor of “Franklin: The Autobiography and Other Writings on Politics, Economics, and Virtue;” his most recent publication is “Benjamin Franklin and the Politics of Improvement” (Yale, 2008). He has been a fellow in the Society of Fellows at Columbia University and the Center for Human Values at Princeton University. He also has received grants and fellowships from the National Endowment for the Humanities, the American Philosophical Society and the University of California. He is currently writing a book on the Levellers.

Students Help CNBC CONTINUED FROM PAGE SEVEN to them individually, they’re very, very happy. That’s great to hear that.” Ida Lomibao, a music performance and professional writing major who is also in the accelerated Master of Arts Management program, helped audience members find seats in McConomy Auditorium, where people waited until the show was ready to be filmed.

“I’ve worked front-of-house so I’m used to this,” Lomibao said, referring to helping audience members during theatrical and musical productions. “And I’ve done public relations work in the past so I thought this would be an interesting opportunity to see a different side of the field.”

Hannah Post, a sophomore in professional writing and French, said she loved watching how the show was put together.

“My favorite part overall was meeting the production team and watching them work, because this gave me a glimpse into a career field I previously hadn’t known much about,” Post said.

Charles Rawlins, a junior in music and technology, was among the students who volunteered for the show. He and other students sat on the “hot seats” under the lights holding photos of the panelists while CNBC crew members adjusted equipment during the morning. He aided with crowd control later in the day.

“My advisor thought that it would be cool to see the production areas and check it out,” Rawlins said. “It was awesome. Everyone who works for CNBC was really nice and helpful. It’s been pretty fun.”

Is the Piper helping to keep you informed of campus news and events? Is it something you enjoy receiving and reading? If you haven’t done so already, there’s still time to fill out the Piper’s survey online at https://bit.ly/PiperSurvey09. It should only take you about 10 minutes to complete. Provide as much detail as possible in your responses — the more you share, the more we can learn about how the Piper can best serve you. Please send us your responses by Jan. 4. Thank you in advance for your feedback.

STAY POSTED
with Carnegie Mellon Internal Communications

piperTRIVIA
In lieu of a trivia question this month, send us your best Carnegie Mellon-related digital image from 2009. Four winning images will be selected by Internal Communications and printed in the February issue of the Piper. Those submitting the four winning images will receive a Carnegie Mellon golf umbrella. The deadline for submissions is 5 p.m., Friday, Jan. 8. Entries should be sent to Bruce Gerson at bg02@andrew.cmu.edu with “December Piper Trivia” in the subject line. Previous winners are ineligible.