



Carnegie Mellon

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Fischbeck Honored As Elite Educator

■ Bruce Gerson

For Professor Paul Fischbeck, an expert in decision analysis and determining chance and probability, being named this year's recipient of the university-wide William H. and Frances S. Ryan Award for Meritorious Teaching was a decision whose time had come. He will receive the award at the Celebration of Teaching at 4:30 p.m., Wednesday, April 21 in Rangos 1 & 2.

It's a fitting award for Fischbeck, an outstanding teacher in two departments and two colleges who is praised by his peers and pupils for his mastery of the classroom and his astute expertise in leading team project-oriented courses that teach

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1000plus

UNIVERSITY COMMUNITY CELEBRATES DAY OF SERVICE



PHOTOS BY GLENN BROOKES

MORE THAN 1,000 VOLUNTEERS PARTICIPATED IN THE "1000PLUS" ANNUAL DAY OF SERVICE AT TWO DOZEN PITTSBURGH SITES ON SATURDAY, MARCH 27. AMONG THE WORKERS AT HOSANNA HOUSE SHERWOOD CAMP IN WILKINSBURG WERE SOPHOMORES FORREST GRINSTEAD (ABOVE, FROM LEFT), DAVID SOAMCHAND AND AMY ADETORO "TORO" ADEYEMI. SUZANNE LAURICH-McINTYRE (AT RIGHT), ASSISTANT VICE PROVOST FOR GRADUATE EDUCATION, JOINED THE STUDENTS AND OTHER FACULTY AND STAFF DURING THE DAY. "IT IS EXTREMELY AFFIRMING TO SEE SO MANY PEOPLE FROM CARNEGIE MELLON ENGAGE IN SERVICE AND SHOW THE CITY OF PITTSBURGH HOW MUCH WE APPRECIATE BEING PART OF ITS COMMUNITY," SAID LUCAS CHRISTAIN, COORDINATOR OF STUDENT DEVELOPMENT. FOR MORE PHOTOS FROM THE EVENT, VISIT [HTTP://BIT.LY/CMUPIPER](http://bit.ly/cmupiper).

Census 2010: Making Sure You Count

■ Shilo Raube

Once a decade, the government sets out to figure out how many people there are in the United States. The count, required by the Constitution, is used to allocate seats in the House of Representatives, determine the boundaries of congressional districts, decide where hospitals, among other things, are built and distribute more than \$400 billion in federal funds — some of which have direct implications for education and research.

All households should have received Census Bureau forms on March 15. By law, each household is required

CONTINUED ON PAGE TEN

Nair To Retire After Decades of Teaching Innovations

■ Heidi Opdyke

For 32 years, Indira Nair has championed change at the university. Respected by students and colleagues alike, she has helped transform Carnegie Mellon from a regional university into a world-class institution.

Nair is ready for her own change. She is retiring in July. During her tenure, she has worked as a researcher, professor and administrator, but those titles do little to reflect the stamp she has made on the university's mission.

"As anyone who has had the opportunity to interact with Indira in any of her educational roles at the university will know, her approach to education has always been as a means of reflection, ethics, access, inclusion and understanding," said Executive

Vice President and Provost Mark Kamlet in an email to the university community. "For her, the key question has always been 'how do we educate our students to become aware, socially responsible global citizens of tomorrow's world?' Indira truly has touched nearly every aspect of this university."

Nair started at Carnegie Mellon in 1978 in the newly created Department of Engineering and Public Policy (EPP) as

a research associate and has served in a variety of roles in EPP including associate department head and professor. She was named vice provost of education in 1998.

"I came here [the vice provost's office] being exposed to a very interdisciplinary kind of environment," Nair said. "I always had a tendency to think broadly about the context of the

CONTINUED ON PAGE SEVEN

Q&A With Dan Barnett: Spring Carnival To Have a Twist

■ Heidi Opdyke

Dan Barnett is the director of On-Campus Programs for Alumni Relations. As part of his responsibilities, he oversees the coordination and planning of Homecoming Weekend and Spring Carnival & Reunion Weekend April 15-17. Barnett also supervises the On-Campus Programs team and advises the Student Homecoming Committee. This year's Carnival has a few new "twists," so we caught up with Barnett to hear what's new.

What is your role in Spring Carnival?

In partnership with Student Activities, the Sweepstakes and Spring Carnival committees, Alumni Relations assists with the coordination of the overall schedule of events for alumni and students, specifically focusing on incorporating and planning opportunities for interaction between students and alumni.

Additionally, now that all reunions are being celebrated at Spring Carnival & Reunion Weekend, we work with the class planning committees to create the reunion experience for each decade. Staff members within Alumni Relations also work with student organizations and alumni interest groups to organize reunions and receptions.

What's new at Spring Carnival?

The biggest addition and change for this year's Spring Carnival & Reunion Weekend is the reunion schedule, which ironically has the theme "History with a Twist."

In past years, reunions had been celebrated at both Homecoming and Spring Carnival. Last January, the Alumni Association Board voted unanimously to move all reunions to the spring. This decision was based on years of feedback from alumni and recent attendance trends at both of the weekends. Now, all reunions are celebrated at Spring Carnival & Reunion Weekend.

The format of reunion celebrations has also changed. Each reception is open to the entire decade and is hosted by those classes celebrating their reunions. Because many alumni returning to campus were not in a reunion class, changing the format of the reunions now gives every alumnus and alumna a home when they return for the weekend.

Is there anything else new?

We're recognizing our most engaged alumni and students this year with a new program called the Loyal Scots. To be recognized as a Loyal Scot, there are four simple steps. Members are people who have provided up-to-date information to stay connected with Carnegie Mellon, attended an event or volunteered for the university, made a cash gift of any amount and show their Tartan pride. [Please visit any of the alumni association welcome areas for more information or www.cmu.edu/LoyalScot.]

What does Spring Carnival offer for staff and faculty?

Spring Carnival & Sweepstakes Races, also known as Buggy, are an amazing opportunity for faculty and staff to see how talented and gifted CMU students are outside of the classroom environment. These traditions are embedded in the culture of Carnegie Mellon and the number of students participating in events surrounding Spring Carnival Weekend is always impressive.

Additionally during the Sweepstakes Races, there are family activities at the KidZone tent, not to mention all of the excitement of the rides, great food and booths on the Midway.

All faculty and staff are invited to the Alumni Association All Campus BBQ from 11:30 a.m. to 1:30 p.m., on Friday, April 16, between the tennis courts and the University Center.

How do activities like Spring Carnival pull the community together?

Spring Carnival is one of those activities that while classes, colleges and department have individual reunions, there are opportunities to see what else is happening throughout the campus. The traditions of the Sweepstakes Races, Booths and Scotch'n'Soda appeal to all ages. It's one of those times where work is

set aside to celebrate many of the out-of-classroom successes unique to Carnegie Mellon.

Where can people go to find more information about Spring Carnival?

There are two main Web sites www.cmu.edu/alumni/carnival where you can register for Spring Carnival and www.cmu.edu/carnival, which features information about Midway and performances throughout the weekend.

Why is it important to register for Spring Carnival?

By registering, even for activities that don't require a cost, it gives us an idea as to how many people to expect and who is on campus for the weekend. Some of the activities have maximum capacities so it's best to register early.

What's next for your team?

We have already begun the planning process for Homecoming 2010 with the Student Homecoming Committee, and are actively recruiting our alumni



PHOTO BY KEN ANDREYO

DAVID LEWIS, A STUDENT IN COMPUTER SCIENCE AND ELECTRICAL AND COMPUTER ENGINEERING, PUSHES KAMIKAZE, ALPHA EPSILON PI'S BUGGY, DURING LAST YEAR'S SWEEPSTAKES RACES. THE FRATERNITY WAS AWARDED THE CHAIRMAN'S CHOICE AWARD.

volunteers for the classes ending in 1s and 6s who will be celebrating their reunion at next year's Spring Carnival & Reunion Weekend.

SPRING CARNIVAL EVENTS AT A GLANCE APRIL 15-17

Scotch'n'Soda Production: "Dirty Rotten Scoundrels"

Thursday: 8 p.m.

Friday: 3 p.m. and 11 p.m.

Saturday: 3 p.m. and 8 p.m.

Rangos Ballroom,
University Center (UC)

Tickets are available online at www.SNStheatre.org.

Spring Carnival Midway Opening Ceremony

3 p.m., Thursday, April 15
Spring Carnival Midway

Kiltie Band Concert

4 p.m., Thursday, April 15
Spring Carnival Midway Tent

Activities Board Spring Carnival Comedy Show

8 p.m., Thursday, April 15
Spring Carnival Midway Tent

Preliminary Sweepstakes Final Races & KidZone Activity Area

8 a.m. – Noon, Friday, April 16
Schenley Park (Course is on Tech Street, Frew Street and Schenley Drive.)

Alumni Association All Campus Barbeque

11:30 a.m. – 1:30 p.m., Friday,
April 16
Merson Courtyard & Loggia, UC

Final MOBOT Slalom Races

Noon, Friday, April 16
the Quad (outside of Wean Hall)

President's Address & Student Life Panel

2-2:30 p.m., Friday, April 16
Connan Room, UC

Activities Board Spring Carnival Concert

8 p.m., Friday, April 16
CFA Lawn (Rain location:
Wiegand Gym)

Sweepstakes Final Races & KidZone Activity Area

9 a.m. – Noon, Saturday, April 17
Schenley Park (Course is on Tech Street, Frew Street and Schenley Drive.)

Holi

Noon – 4 p.m., Saturday, April 17
Flagstaff Hill
www.cmu-om.org

Spring Carnival Alumni Golf Outing

8 a.m., Sunday, April 18
Murrysville Golf Club, Murrysville
Registration Required/Event Fee: \$95

To register, visit www.cmu.edu/alumni/involved/events/carnival/registration-golf/index.html.



the PIPER 4/10 Issue

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Carnegie Mellon University does not discriminate and Carnegie Mellon University is required not to discriminate in admission, employment, or administration of its programs or activities on the basis of race, color, national origin, sex or handicap in violation of Title VI of the Civil Rights Act of 1964, Title IX of the Educational Amendments of 1972 and Section 504 of the Rehabilitation Act of 1973 or other federal, state, or local laws or executive orders.

In addition, Carnegie Mellon University does not discriminate in admission, employment or administration of its programs on the basis of religion, creed, ancestry, belief, age, veteran status, sexual orientation or gender identity. Carnegie Mellon does not discriminate in violation of federal, state, or local laws or executive orders. However, in the judgment of the Carnegie Mellon Human Relations Commission, the Presidential Executive Order directing the Department of Defense to follow a policy of, "Don't ask, don't tell, don't pursue," excludes openly gay, lesbian and bisexual students from receiving ROTC scholarships or serving in the military. Nevertheless, all ROTC classes at Carnegie Mellon University are available to all students.

Inquiries concerning application of these statements should be directed to the Provost, Carnegie Mellon University, 5000 Forbes Avenue, Pittsburgh, PA 15213, telephone 412-268-6684 or the Vice President for Campus Affairs, Carnegie Mellon University, 5000 Forbes Avenue, Pittsburgh, PA 15213, telephone 412-268-2057.

Carnegie Mellon University publishes an annual campus security report describing the university's security, alcohol and drug, and sexual assault policies and containing statistics about the number and type of crimes committed on the campus during the preceding three years. You can obtain a copy by contacting the Carnegie Mellon Police Department at 412-268-2323. The security report is available through the World Wide Web at www.cmu.edu/police/. Obtain general information about Carnegie Mellon University by calling 412-268-2000.

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Campaign Goes Global

President Jared L. Cohon and other members of the university recently traveled to Singapore, Mumbai, Bangalore and New Delhi, where they met several hundred alumni, parents and friends as part of “Inspire Innovation: The Campaign for Carnegie Mellon University.” For more information, visit at www.cmu.edu/campaign.



PARENTS MALATI SHAH AND ALKA KHANNA ATTENDED THE NEW DELHI EVENT. THE EVENT FOCUSED ON THE CHALLENGES AND OPPORTUNITIES OF GREEN LEADERSHIP IN NEW DELHI AND AROUND THE WORLD. SPEAKERS INCLUDED FORMER CARNEGIE MELLON FACULTY MEMBER V.S. ARUNACHALAM, NOW CHAIRMAN AND FOUNDER OF THE CENTER FOR STUDY OF SCIENCE, TECHNOLOGY AND POLICY; AND PRADEEP K. KHOSLA (CIT'84,'86), THE PHILIP AND MARSHA DOWD UNIVERSITY PROFESSOR AND COLLEGE OF ENGINEERING DEAN.



JAMORN HO (HSS'09), MING FEI YAN (CMU'09) AND EI EI MIN THU (CMU'09) POSE FOR A PHOTO DURING THE MARCH 3 EVENT IN SINGAPORE. THE EVENT FOCUSED ON THE CHANGING DYNAMICS OF THE GLOBAL ECONOMY AND SINGAPORE'S POSITION AS AN INTERNATIONAL CENTER OF TRADE AND COMMERCE.

PHOTOS COURTESY OF CARNEGIE MELLON UNIVERSITY



TEPPER ALUMS PRATIK NAVAVATY (TPR'04) (CENTER) AND NIRAV MODY (TPR'03) (BACK, RIGHT) ENJOY A PANEL DISCUSSION ABOUT SMART GROWTH AND SUSTAINABILITY IN TODAY'S URBAN CENTERS. SPEAKERS AT THE MUMBAI EVENT INCLUDED DONALD K. CARTER (CFA'67), THE DAVID LEWIS DIRECTOR OF URBAN DESIGN AND REGIONAL ENGAGEMENT; AND PARAG PAREKH (CFA'94), ARCHITECT AND OWNER OF J.P. PAREKH & SON.

Order of the May Honors Longtime Supporters

■ Heidi Opdyke

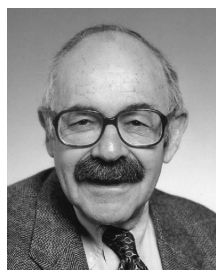
A new donor society will have its debut at Spring Carnival. The Order of the May recognizes donors with 25 years or more of consecutive giving.

Named for Albert C. May (E'21, '22), who founded the Annual Fund at Carnegie Tech in 1947 and contributed to it every year until he passed away in 1998, this special order honors those who embody all of the best characteristics for which May is remembered.

Members receive special communication and invitations from Carnegie Mellon. Those who achieve two, five, 10, 15 and 20 years of consecutive giving will receive personal recognition from the university. Those who reach the 25-year milestone will be formally inducted into the Order. Inaugural members of the society include Donald Wilkins and Alfred Blumstein.

The Piper asked eight longtime donors about why they think it's important to donate to Carnegie Mellon. Here's what they have to say:

Alfred Blumstein, the J. Erik Jonsson University Professor in the Heinz College



“Having made my long-term career commitment to CMU and to the Heinz College, I have always felt it important to support that institution to make it stronger and thereby to encourage others to do similarly.”

Stephen Brockman, professor of German



non-profit financially. Obviously such support becomes even more crucial in an economic downturn.”

Norma Clouse, financial coordinator for Payroll Services



for the university community.”

Linda Kauffman, teaching professor in the Department of Biological Sciences

“I believe that learning is the most exciting thing I will ever do, and institutions of learning deserve our support. And so, during the years that I have worked at CMU, I used payroll deduction to make a monthly contribution to the university, even though my own salary was not very large. In addition, I felt an obligation to try to repay the benefits of tuition remission — my two sons attended CMU

“I think if one works for a non-profit organization and gets paid reasonably well by the non-profit and can afford to do so, one should also support the

“I love to read, and I contribute to University Libraries because I believe that my gift can help meet the academic needs of students and enrich the quality of life

under this program. Certainly my modest contributions will never match those benefits, or begin to pay for the rich learning environment Carnegie Mellon provides. But because I have been its beneficiary in so many ways, I am glad to help support CMU.”

Lester Lave, the Harry B. and James H. Higgins University Professor of Economics at the Tepper School of Business; director, Carnegie Mellon Green Design Initiative; co-director, Carnegie Mellon Electricity Industry Center



I can see that my contribution is put to good use and makes CMU a better place for the students, faculty, staff, Pittsburgh and the world.”

Donna Marano, director of finance and administration for Civil & Environmental Engineering



“I donate to Carnegie Mellon because I believe the work we do here will change the world one student at a time, one discovery at a

time. I devote my time and my talent to the work we do here. Some people think that is enough. But, I am compensated for that. Going beyond that to financially support the institution is how I demonstrate I truly believe in the work.”

Mahadev Satyanarayanan, the Carnegie Group Professor of Computer Science



hardworking people at all levels: faculty colleagues, staff and students. Their drive and effort inspires my support.”

Donald Wilkins, professor emeritus of Music



“Carnegie Mellon has been a part of my family for many years. My father studied cello at the university in 1917, and my mother took art classes before she was married. I was a student here, and so was my sister, daughter and son. I believe in Carnegie Mellon and I give as a way to repay some of the benefits I received both as a student and a professor. When my mother died, my family endowed Carnegie Mellon with the George and Mary Wilkins Scholarship for a cello student.”

A Common Ancestry:

CARNEGIE MELLON PHILHARMONIC RETURNS TO NYC'S CARNEGIE HALL

■ Kristi Ries

From intense studio classes, ensemble rehearsals and the multitude of hours in solitary practice, students in Carnegie Mellon's School of Music have spent years honing their talent for moments like these.

On April 8, the Carnegie Mellon Philharmonic will once again return to New York City's storied Carnegie Hall, a venue built by CMU's founder in 1891, and a venue where many music alumni have performed over the years.

One such alumnus is Liam Bonner, a rising Metropolitan Opera star who will be a guest soloist in this year's program. Bonner will lend his rich baritone voice to Mahler's "Lieder eines

fahrenden Gesellen."

Maestro Ronald Zollman, the new director of Orchestral Studies, will lead the university's flagship ensemble on this auspicious evening, which happens to coincide with his 60th birthday.

The concert will open with a New York premiere performance of Jacob Druckman's "Demos," a piece that carries the audience through folksongs of 12 European countries. Zollman, who calls Druckman "an imaginative, inspired composer," first premiered the piece as music director of the National Orchestra of Belgium in 1992.

To date, Zollman has led more than 160 orchestras on five continents. Yet he cites this experience of working with

both professional and student orchestras as a key element of his artistic career.

"I have always mixed activities, as I feel that working with students is a happy complement to the work with a professional orchestra, and vice versa," he said. "The energy one encounters in a youth orchestra compensates for technical weaknesses one may encounter. On the other hand, the routine one may find in a professional orchestra can be positively shaken by the energetic dynamism experienced when working with younger musicians."

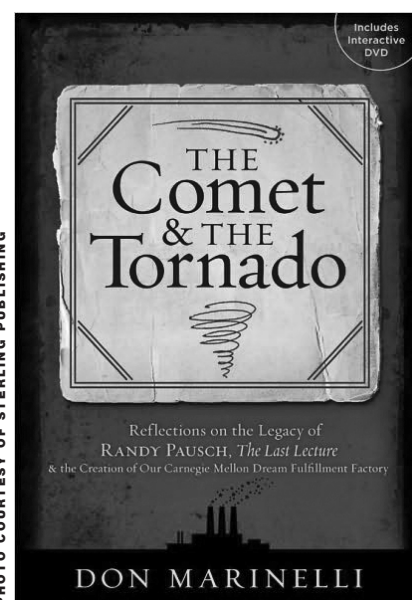
The concert closes with Igor Stravinsky's vibrant and fanciful "Petrouchka." Parisian audiences first heard the Russian ballet in 1911 —

just a few short years before music began to echo through the ornate halls of the College of Fine Arts.

For those unable to travel to New York, the Carnegie Mellon Philharmonic will present a Pittsburgh preview concert featuring Bonner at 8 p.m. on Tuesday, April 6 in Oakland's Carnegie Music Hall. Tickets for the NYC Carnegie Hall performance are \$15 to \$25; to order, call CARNEGIECHARGE at 212-247-7800 or visit www.carnegiehall.org or <http://music.cmu.edu>. Tickets for the Pittsburgh preview concert are \$5 for general admission and can be ordered at <http://music.cmu.edu>.

Admission is free for students who show their college ID.

Don Marinelli Reflects on Randy Pausch, ETC in Upcoming Book



■ Eric Sloss

In his forthcoming book "The Comet and the Tornado" (April 2010), Don Marinelli, executive producer of the Entertainment Technology Center (ETC), reflects on his early days as assistant head of the Drama Department as well as the years he spent building the ETC with his late colleague and co-founder Randy Pausch.

In his book and talk, "The Last Lecture," Pausch affectionately referred to Marinelli as the "Tornado," a whirlwind of energy and creativity, and spoke of their yin-yang relationship, which

helped them conceptualize and create the ETC, which Pausch referred to as a "Dream Fulfillment Factory."

Marinelli's book covers the six years he spent sharing an office with Pausch and how their time spent together taught him about thinking with both sides of your brain, embracing change, the importance of self-reflection, the importance of a shared vision and facing our fears of mortality.

In coming up with a one-word description for Pausch, Marinelli decided on a comet.

"Comet Pausch burst upon the scene like an astral body ... illuminating

his secrets for living life to the fullest for millions of folks who needed such guidance" ... Comet Pausch left millions of people stunned, amazed, happy, giddy and seeing light where there had been only darkness ... before this amazingly beautiful comet hurtled off into the universe," said Marinelli in his new book.

Sterling Innovation published "The Comet and the Tornado." Pamela Horn, (H'88) editorial director at Sterling Innovation, discovered Marinelli's book idea and helped him publish the book.

The book is available at Amazon.com, Barnes & Nobles and Carnegie Mellon bookstores.

Upcoming Events

The Robotics Institute will celebrate both its 30th anniversary and the first National Robotics Week, April 10-18, with a program called Robot 30 on April 15-16.

A highlight of Robot 30, which coincides with Spring Carnival and Reunion Week-end, will be an open house on April 16 that includes a 3 p.m. lecture by Matt Mason, director of the Robotics Institute, tours and demonstrations from 4 to 6 p.m., and a reception from 5 to 7 p.m.

For details, please consult the Robot 30 Web site at www.ri.cmu.edu/event_detail.html?event_id=135&menu_id=241&event_type=events. The site also includes a link for pre-registration, which is required by April 12. For information about National Robotics Week, visit www.nationalroboticsweek.org/.

University Lecture Series

Anne Applebaum, a columnist for the Washington Post and Slate, will discuss "Putinism: The Ideology." 4:30 p.m., Tuesday, April 6
Adamson Wing, 136A Baker Hall

University Lecture Series

Edward Tufte, an expert on visual thinking and analytical design, will discuss how to make sense of information in terms of science and art. 7 p.m., Wednesday, April 7
Rashid Auditorium, Gates and Hillman centers

Humanities Center Lecture Series University Lecture Series

Solomon Benatar, a professor of medicine at the University of Cape Town, will discuss "Global Health and the Global Economic Crisis." 4:30 p.m., Thursday, April 8
Porter Hall 100 (Gregg Hall)

University Lecture Series

Edward Tufte, an expert on visual thinking and analytical design, will talk about his career as a scholar and an artist. 7 p.m., Thursday, April 8
Rashid Auditorium, Gates and Hillman centers

CAUSE Lecture Series

Leslie Brown of Williams College will discuss "Plenty of Opposition ... Which Has Been Growing Daily: Gender, Generation and Change in the Jim Crow South." 4:30 p.m. refreshments, 5 p.m. lecture, Friday, April 9
Baker Hall A53

Innovation and Invention in Science & Technology Lecture Series

Gail K. Naughton of San Diego State University will discuss "Bringing Regenerative Medicine Therapies from Lab Bench to Clinical Practice." 4:30 p.m., Monday, April 12
Porter Hall 100 (Gregg Hall)

L&D Session

David J. Bohan, associate vice president of University Advancement, will give an update on Inspire Innovation: The Campaign for Carnegie Mellon University. Noon - 1:30 p.m., Tuesday, April 13
Conan Room, UC

Spring Carnival

April 15 - 17
For more, see page 2.

School of Drama Production

Assistant Professor of Acting Matt Gray will direct "Richard III." 8 p.m., Tuesday through Friday; 2 p.m. and 8 p.m., Saturday, April 15 - 24
Philip Chosky Theater

Humanities Center Panel Discussion

"The Causes of Poverty and Global Obligations to the Poor: What is the Link?" with Nicole Hassoun, assistant professor of philosophy. 4:30 p.m., Monday, April 19
Porter Hall 100 (Gregg Hall)

L&D Session

Karen Beaudway, a communications specialist in Human Resources, will lead "Communicating via the Web II: Improve Your Web site." 1 - 4 p.m., Tuesday, April 20
Rangos 3, UC

Celebration of Teaching Awards

The Ryan Award, Gelfand Award and Barbara Lazarus Award will be presented. College teaching award recipients also will be recognized. 4:30 p.m. reception, 5 p.m. awards presentation, Wednesday, April 21
Rangos 1 and 2, UC

Take Our Sons and Daughters to Work Day

The annual event is sponsored by Staff Council. Thursday, April 22
www.andrew.cmu.edu/org/todtw

University Lecture Series

The Tepper School's Allan Meltzer will discuss "Lessons about Economic Policy from History" with a special introduction by Associate Professor Kiron Skinner of the Department of Social & Decision Sciences. 4:30 p.m., Thursday, April 22
Porter Hall 100 (Gregg Hall)

University Lecture Series

Michael Kammen of Cornell University will discuss "What Happens When Art Provokes American Society — and Why." 7 p.m., Thursday, April 22
Porter Hall 100 (Gregg Hall)

School of Art Lecture Series

Janine Antoni's work blurs the distinction between performance art and sculpture, transforming everyday activities such as eating, bathing and sleeping into ways of making art. 5 p.m., Tuesday, April 27
Kresge Recital Hall

Buhl Lecture

William M. Gelbart, distinguished professor of chemistry and biochemistry at UCLA, will present "Viruses From Scratch." 4:30 p.m., Wednesday, April 28
Mellon Institute (MI) Auditorium, Reception to follow, MI Lobby
See page 12 for more information.

Meeting of the Minds — Undergraduate Research Symposium

Wednesday, May 5
University Center
www.cmu.edu/uro/MoM/



students problem-solving skills, one of the hallmarks of a CMU education.

A faculty member in the College of Engineering's Department of Engineering and Public Policy (EPP) and the College of Humanities and Social Sciences' Department of Social and Decision Sciences (SDS) since 1990, Fischbeck is known across campus for his Decision Analysis and Decision Support Systems (DADSS) and EPP project courses.

Using different aspects of campus

life as a topic of study, DADSS provides students with a fundamental knowledge of decision analysis, and hands-on experience with analytical methods and procedures while learning to work in small groups. Students have studied usage of the library and weight room, jaywalking and eating habits on campus. Once completed, the studies often inspire campus improvements.

Howard Heinz University Professor Baruch Fischhoff, said students in Fischbeck's classes "use more of Excel's capabilities than most people realize is possible."

Also legendary is Fischbeck's grading system for multiple-choice exams in DADSS. Rather than just picking the correct answer, students must assess the probability of each answer being correct.

Students and colleagues agree that Fischbeck gets the most from his students and they get the most from him.

"He is able to understand what his students need on an individual basis and connect with each and everyone of them," senior business administration and decision sciences major Raunaq Palejwala wrote in an email supporting Fischbeck's nomination. "The way that he teaches material, especially material as difficult to grasp as this [in the DADSS course] is truly unique. He uses everything he's done in the past as part of his unique academic palette, which makes learning form him extremely fun, down-to-earth and easy to relate to."

"Professor Fischbeck is the finest professor I have ever had. He is the unique breed of professor that gives this university the reputation it has earned," Palejwala said.

"It [DADSS] was a stimulating, challenging, 'dig into your brain and your psyche' class whose subject matter, techniques and real-world applications I will remember for the rest of my life," said Laura Seitz, a 2008 graduate who majored in civil and environmental engineering and EPP.

Junior Kate Smith said DADSS embodies the Carnegie Mellon philosophy of practical, technical learning.

"I think Paul's passion for education is responsible for my own appreciation of — and commitment to — rigorous quantitative research, my desire to pursue a Ph.D. to continue pursuing important research questions, and my desire to teach with the same interest in my students and passion for my subject," wrote Ryan Menefee (HNZ'09).

Michael Cushman, a mechanical engineering and EPP major who earned his bachelor's degree last year, took DADSS as well as an EPP project course with Fischbeck. "He has an amazing ability to bring order and consistency to what can be unclear and confusing. During the project course, Professor Fischbeck let us decide where it was going, but told us how we could get there," he said.

Like his students, Fischbeck's col-



PAUL FISCHBECK

PHOTO BY KEN ANDREYO

leagues in EPP and SDS believe he is among the elite professors at Carnegie Mellon. In their nominating letter, Emeritus Professor Francis Clay McMichael and professors M. Granger Morgan, head of EPP, and John Miller, head of SDS, wrote that he is an "accomplished educator of the highest rank."

"His enthusiasm for pedagogy, innovative teaching methods, articulate and expressive style, unflinching dedication to students in and out of the classroom, and his ability to generate genuine excitement among students all qualify Paul for this significant recognition as a teacher," they said.

While his teaching talents are unquestioned, he's also an exceptional client for seniors in the capstone project-based course "Information Systems Applications," said information systems professors Randy Weinberg and Jeria Quesenberry. Students in the course work in small teams to design and implement an information system to help solve a problem for a local non-profit organization or university client.

Quesenberry said Fischbeck has consistently supplied innovative challenges as a client, and provides exceptional supervision, guidance and assistance to the student teams. One project involved investigating traffic fatalities based on gender and demographic issues. Another involved using gender and demographics to investigate mortality rates in general.

The Web site www.DeathRiskRankings.com allows users to query publicly available data from the United States and Europe, and compare mortality risks by gender, age, cause of death and geographic region. The Web site not only gives the risk of dying within the next year, but it also ranks the probable causes and allows for quick side-by-side comparison between groups.

"I have seen, time and time again, how skillfully Paul works with our students and faculty advisers," Weinberg said in a supporting letter. "His vision has driven several IS student projects to fruition in recent years and it has been a great delight to see some of these projects receive national, and indeed, international attention."

"Very simply, I would say Paul Fischbeck is the 'best of the best.' He is tireless and his dedication to student achievement at the undergraduate and graduate levels is, at least within my field of vision, almost unsurpassed."

CELEBRATION OF TEACHING

William H. and Frances S. Ryan Award for Meritorious Teaching

Paul S. Fischbeck, professor, departments of Social & Decision Sciences and Engineering & Public Policy

Barbara Lazarus Award for Graduate Student and Junior Faculty Mentoring

William J. Hrusa, professor, Department of Mathematical Sciences

Mark Gelfand Service Award for Educational Outreach

Kenya C. Dworkin, associate professor of Hispanic Studies, Department of Modern Languages

COLLEGE TEACHING AWARDS

College of Engineering

Benjamin Richard Teare, Jr. Teaching Award

Jack L. Beuth Jr., professor, Department of Mechanical Engineering;

Priya Narasimhan, associate professor, Department of Electrical and Computer Engineering

College of Fine Arts

Henry Hornbostel Teaching Award

Mark Baskinger, associate professor, School of Design

College of Humanities & Social Sciences

Elliott Dunlap Smith Award for Teaching and Educational Service in Humanities & Social Sciences

Yueming Yu, teaching professor of Chinese Studies, Department of Modern Languages

Heinz College

Marcia Wade Teaching Award

Stephen F. Roehrig, teaching professor

School of Information Systems & Management Teaching Award

Michael D. Smith, associate professor of information technology and marketing

Mellon College of Science

Julius Ashkin Teaching Award

Catalina Achim, associate professor, Department of Chemistry

Richard Moore Education Award for Substantial and Sustained Contributions to Education

Richard Holman, professor, Department of Physics

School of Computer Science

Herbert A. Simon Award for Teaching Excellence in Computer Science

Victor S. Adamchik, associate teaching professor, Department of Computer Science

Tepper School of Business Excellence in the Classroom, B.S. Business Administration Program Teaching Award

Joachim Vosgerau, assistant professor of marketing

Excellence in the Classroom, B.S. Economics Program Teaching Award

Onur Kesten, assistant professor of economics

MBA Teaching Award/George Leland Bach Excellence in Teaching Award

Burton Hollifield, professor of financial economics

Graduate Student Teaching Award

Benjamin Jantzen, Department of Philosophy

Graduate Student Service Award

Chad Ellis, Department of Chemistry

Burkert To Serve as Next Vice Provost for Education

■ Bruce Gerson

Amy Burkert, an assistant dean for the Health Professions Program and Educational Initiatives at the Mellon College of Science, and a teaching professor in the Department of Biological Sciences, will become vice provost for education Aug. 1, succeeding Indira Nair, who has announced her retirement after 12 years in the role.

Burkert seems to be a perfect fit for the position. For more than a decade she has been dedicated to serving the needs of Carnegie Mellon's students, faculty and programs. As a pioneering teacher, advisor, mentor and administrator, she's helped to create novel opportunities and new paradigms that have been nationally recognized.

In announcing her appointment, Executive Vice President and Provost Mark Kamlet cited her commitment and innovative approach to education.

"We are fortunate to have Amy Burkert, an enormously dedicated and talented educator, to fill this important role," Kamlet said. "Amy brings to the position much experience and enthusiasm as an award-winning student advisor and teaching professor in Biological Sciences — she is a recipient of both the University Advising Award and the MCS Julius Ashkin Teaching Award — and as an associate department head and dean, who's been a creator and developer of successful new courses and programs."

MCS Dean Fred Gilman agrees.

"Amy is a great choice for vice provost for education. She's been an invaluable member of the faculty of the Mellon College of Science. She excels in whatever she takes on, showing time and again that her heart is in the work of educating, advising and mentoring Carnegie Mellon students," Gilman said.

MCS Associate Dean Eric Grotzinger says Burkert's love for teaching and compassion for students will serve her well in her new role.

"Whether in a traditional classroom, a roundtable discussion room, a research laboratory or an advising office, Amy strives to convey to her students a passion for learning, an enthusiasm for scientific discovery and her sincere commitment to their personal, academic and professional development. She will bring this same passion, enthusiasm and innovation to her new job," Grotzinger said.

Burkert's innovative accomplishments include helping to create new interdisciplinary courses of study, such as the Bachelor of Science and Arts and the Science and Humanities Scholars programs. She helped to establish the unified major in biological sciences and psychology, the biomedical engineering minor for non-engineering students and the minor in health care policy and management. She also was on the team that developed the intercollegiate bachelor's degree program in computational biology and the master's degree program in biotechnology, policy and management.

Burkert was instrumental in developing the global health course Biotechnology Impacting OurSelves, Societies and Spheres (BIOS3), and EUREKA, a first-year seminar for MCS students that combines the disciplines of biological sciences, physics, chemistry and mathematical sciences. She was part of the team that created the Diabetes World Service-Learning Project with Children's Hospital, which provided students in the Health Professions Program the opportunity to experience first-hand the challenges faced by patients with chronic disease.

Under her leadership, both the Health Professions Program and the undergraduate program in Biological Sciences have grown in numbers and reputation. She has developed and nurtured numerous partnerships across campus and throughout the region. Thousands of students have been impacted by her work.



AMY BURKERT

True to the Carnegie Mellon ethos, Burkert is always looking for ways to advance the cutting edge in education. She recognizes the unique elements of Carnegie Mellon that make it an ideal place for collaborative innovation. Many of the educational initiatives she was a part of were the result of realizing a need, partnering with students and faculty to imagine what could be done, and then taking action to work together to make it happen.

Burkert has very much enjoyed BIOS3, which she developed with Grotzinger and the late Bill Brown in response to President Jared Cohon's Global Course Initiative. She said the class is one of her "favorite projects because it brings together many elements including teams of interdisciplinary students exploring science in context, global connections via technology and impact through service learning."

Taught by Burkert and her colleagues for the past three years, BIOS3 focuses on different global health topics including HIV/AIDS and diabetes. Students in the class on HIV/AIDS collaborated with an alumna in a clinic in Africa and the diabetes class learned from health officials in Qatar, both via videoconferencing.

Through the BIOS3 service-learning component students take their knowledge

and apply it in a public health service activity. Students collected items for caregiver kits that were shipped to the clinic in Africa and given to AIDS workers to take on their rounds. The diabetes module class distributed healthy food to underserved communities through the Produce to the People project at the Greater Pittsburgh Foodbank.

Serving others comes naturally for Burkert — it was a large part of her upbringing. Her father was a minister and her mother was a nurse. Both modeled the fulfillment of working hard to serve the needs of others and one's community.

Working with and for students has been one of Burkert's greatest joys. She said it will be difficult giving up her daily and direct interactions with students but she hopes through her work as vice provost, she will be able to have an even broader impact. Her former students are confident she will succeed.

"I feel immensely excited that this entire institution will be able to benefit from the dedication that Dr. Burkert has to education the way I have benefitted these past years," said Elizabeth Young, a senior biology and health professions major.

"Her excellence in mentoring, communicating, educating, problem solving and leading will surely make her successful as the vice provost for education. I could not be more thrilled with the news, and am only sorry that I will not still be at this institution to see the improvements in educational objectives that she will instill," Young said.

Sheila Prakash, an MCS graduate who was recently hired as a science writer for The New York Times, credits Burkert for academically rescuing her.

"Carnegie Mellon is home to some standout individuals. I don't know of another school that takes better care of its students. As vice provost for education, Dr. Burkert will be able to reach more students than she did before — and that

CONTINUED ON PAGE ELEVEN

Videoconferencing Allows Pittsburgh, Qatar Students To Have Joint

■ Abby Houck

It's 9:30 on a Wednesday morning in Pittsburgh. A member of Computing Services' MediaTech team wheels an LCD TV with a small camera mounted on top into a fourth-floor classroom of Margaret Morrison Carnegie Hall. Students quietly fill in seats with coffee cups in hand. Francesca Torello, an adjunct architecture faculty member, boots up her laptop.

A few moments later, Rami el Samahy, an assistant teaching professor of architecture, is visible on the LCD screen and says "hello" from Carnegie Mellon Qatar. Behind him a lively group of students begins to find seats. It's 5:30 p.m. in Doha.

El Samahy and Torello are team teaching Middle Eastern Cities, a new course that uses case studies to merge urban analysis with urban history. About two dozen students are enrolled. Counting el Samahy's Egyptian roots and Torello's Italian citizenship, 12 nationalities are represented in this "global classroom."

Joint courses have been taught at Pittsburgh and Qatar since 2005. The initiative was the brainchild of Indira Nair, vice provost for education and professor of engineering and public policy.

College of Humanities & Social Sciences (H&SS) professors Laurie Eisenberg (Pittsburgh) and Ben Reilly

(Qatar) taught the first course, "U.S.—Arab Encounters." Nair taught "Global Issues—Local Solutions" with former Carnegie Mellon Qatar faculty member Faheem Hussain. Joanna Dickert from the Office of the Dean of Student Affairs (Pittsburgh) was the primary instructor for "Privilege, Social Responsibility and Community," with assistance from fellow Student Affairs staff Renee Camerlengo (Pittsburgh) and David Stanfield (Qatar), as well as visiting instructor Kira Dreher (Qatar).

Several faculty members have taught a simulcast course from Pittsburgh individually. They include the College of Fine Arts' Kelly Hutzell,

as well as H&SS's David Kaufer and Danielle Wetzel.

Most classrooms at Carnegie Mellon Qatar are equipped with cameras and two large screens — one for displaying course materials and the other for viewing Pittsburgh classrooms. Professors on the Pittsburgh campus may utilize similar setups in Gates 4307 or Baker Hall's Giant Eagle or Steinberg auditoriums. If these rooms are not available, a mobile unit provides a similar effect. Instructors can display course materials as well as the Qatar classrooms through a "picture-in-picture" option on a mobile unit's screen.

Teaching a course via videoconfer-

immediate work that I do. That fit very well with engineering and public policy.”

Nair said EPP’s goal was to teach how engineers and society impact each other.

Professor M. Granger Morgan, head of EPP, hired Nair. Nair said Morgan was instrumental in letting her learn by allowing her to be involved in many of the programs that were being invented at a time when the department was just getting started.

“She quickly proved invaluable,” Morgan said. “We worked together on a wide variety of projects including a series of studies in the area of possible health effects from power-frequency electric and magnetic fields. She became associate department head in EPP and was tenured in the department on the basis both of her research and her outstanding contributions to education here at Carnegie Mellon, and elsewhere across the country and around the world.”

Under her guidance, she has developed programming for undergraduates such as the “Odyssey” program for sophomores and “Big Questions” for first-year students.

She also has spearheaded the University Lecture Series and overseen operations of the Leonard Gelfand Center for Service Learning and Outreach; graduate support programs; graduate diversity; undergraduate research and fellowships; the Eberly Center for Teaching Excellence, Academic Development and the Intercultural Communications Center; the Carnegie Mellon Advising Resource Center; and the Office of Technology for Education.

“I have had the distinct pleasure of working closely with Indira throughout her tenure as Vice Provost for Education,” said Dick Tucker, the Paul Mellon University Professor of Applied Linguistics at Carnegie Mellon, who has been named interim dean for Carnegie Mellon Qatar. “I have been continually struck by the depth and the breadth of her commitment to improving the student

experience, and by the ways that she has intentionally worked to infuse an awareness of, and a commitment to, diversity, sustainability and globalization across the curricular and metacurricular experiences of our students. For me Indira has been a true mentor who personifies all that is good in higher education; and I will miss her immensely.”

While Nair is moving to New Mexico to be closer to family, she will continue to work with Carnegie Mellon on some projects.

Nair said she didn’t approach her vocation with a career path in mind. She said it’s more about looking at the opportunities in front of her, making sense of what needed to be done and learning what she needed to complete the job at hand.

“And then I just do it. That’s how I’ve done all my jobs,” Nair said.

In doing so, she’s reshaped the university’s plan for creating well-rounded students.



INDIRA NAIR

seems we need to have different kinds of literacies,” Nair said. “Everybody needs to know some common facts about the environment and our actions. They need to know that they have to think reflectively about their job and have responsibility embedded toward the world —

versity recently received the 2010 U.S. Senator Paul Simon Award for Comprehensive Internationalization from NAFSA: Association of International Educators. Nair helped lead the international curriculum development that was honored.

“Carnegie Mellon excels in challenging our students to become aware, socially responsible global citizens of tomorrow’s world,” Nair said. “Carnegie Mellon’s focus on internationalization is reflected not only through a curriculum that enhances global understanding, but also through our international students here, our international research and education partnerships, and through our relationships with alumni all over the world.”

Nair helped create courses and activities on the Pittsburgh campus that enhances students’ global understanding of issues in various disciplines. One of those courses is Biotechnology Impacting OurSelves, Societies and Sphere, which Amy Burkert has taught. Burkert will step into Nair’s role as vice provost for education this summer.

When it comes to teaching ethics, among other projects, Nair founded Student Pugwash, a group to help engineers and scientists think responsibly and ethically about their work and how it affects the world around them. She also pushed students to think how they might act in real-world situations while they are still sitting in the classroom.

“I would tell students most often, when professionals think about these things, it is in times of distress of some kind, when they are conflicted and they are facing conflicting decisions,” she said. “And that’s really a bad time to start thinking about something that should be such a core value for your work.”

For future students, Nair has this wisdom to share.

“Look around, look within and reflect on what you are and what you do,” she said.

**A CELEBRATION OF INDIRA NAIR’S 32 YEARS OF SERVICE
WILL BE HELD ON THURSDAY, MAY 6. MORE INFORMATION
WILL BE EMAILED TO THE UNIVERSITY COMMUNITY.**

Rethinking Education

Nair said reading and writing were skills everyone was expected to know in the past. But because of the economy, expanded travel and advancements in communications technology, awareness of the world is vital.

“Understanding how to live together in the world has become so important. And so that knowledge, that you’re not the only person — and yours is not the only way of thinking — is really important to point out to students,” Nair said.

She described the need for everyone to have functioning knowledge of the environment, the world and ethics.

“To function as a full citizen, especially as a learned citizen at that, it

toward the world’s people. And similarly you have to have a knowledge how other people might think, how other cultures might think. So from the beginning, my thinking has been that no matter what subject area you teach, there’s always room to introduce those elements.”

To address these concerns, Nair worked on a variety of programs. One focused on the greening of early undergraduate education.

“We introduced environmental aspects into different courses of different kinds: modeling, design, English, art, architecture,” she said.

Her legacy also is entwined in the innovations that have made Carnegie Mellon a global institution. The uni-

Classroom Experiences

encing presents some challenges, but Torello and el Samahy agree that the experience is worth the extra time and creativity needed to manage a course that spans continents.

“It’s amazing that we can do this,” el Samahy said. “Technology has changed so fast.”

The pair of professors developed their own course Web site to share presentations and allow students to upload course assignments.

Technology in the classroom also required Torello to change her teaching style slightly.

“I like to move around the room and use my hands when I lecture,” Torello

said. “But in this format, I’m at my computer a lot.”

El Samahy is free to move about the classroom since the course’s teaching assistant, fifth-year architecture student and technology whiz Spencer Gregson, is in the Doha classroom. Torello’s graduate teaching assistant, Nathan Shepley Streed, focuses most of his time on helping students with writing assignments.

Scheduling conflicts occasionally arise. For example, when Pittsburgh was snow covered on Feb. 10, class was canceled for all students. In addition, spring break is observed during different weeks.

Students on both campuses have benefited from peer interaction. The

students are learning new approaches to problem solving and are developing a better understanding of how individuals of other cultures view the world.

“Both campuses are very international and cosmopolitan, but in different ways,” el Samahy said.

Ian Newborn, a student in the Master of Urban Design Program, appreciates the opportunity to interact with classmates who have lived in or visited the cities they are exploring.

“As we step into the classroom we are immersed in our topic of study,” he said. “Videoconferencing with Doha allows us in Pittsburgh to connect across cultural and geographical barriers with

our peers who are already familiar with the Middle East.”

Student Batoul Kalife said a group project on Jerusalem impacted her. She initially was apprehensive about the assignment because of strong opinions about Israeli-Palestinian conflicts. El Samahy and the project group challenged her to be objective when collecting and presenting data about the city.

“It was so fascinating to see how Jerusalem, even though it is divided, has parts in it where Jews and Arabs coexist together,” Khalife said. “I would not have known that if I hadn’t worked with two students from the Pittsburgh campus.”

Biomedical Students Develop Ways To Help Brains, Babies

■ Chriss Swaney

Two biomedical engineering graduate students, Matt Oberdier and Sanna Gaspard, are taking entrepreneurship to another level as they both seek to develop novel products to improve the health and work environment of patients and physicians.

Oberdier said his idea is designed to help surgeons readily clear excess blood and control bleeding during critical stages involving brain operations.

“We are creating a device that will house a clear, hermetically sealed dome through which instruments may be passed, and a special pump to apply fluid pressure and monitor the flow to the surgical area,” Oberdier said.

Surgeons need a clear view during brain operations because they have to navigate deep inside the skull and control very small blood vessels.

“About half of all surgeons’ time is spent trying to control some level of

bleeding during most operations,” said James Burgess, a neurosurgeon at Allegheny General Hospital and an adjunct lecturer in Carnegie Mellon’s Biomedical Engineering Department. Burgess also serves as Oberdier’s co-advisor. “This new tool will save time and has the potential to benefit more than 35 million patients worldwide.”

Oberdier earned a bachelor’s degree in chemical engineering in 2003 and a master’s degree in biomedical engineering in 2005 from the University of Akron.

Gaspard, who was recently chosen as the 2010 Engineer’s Week “Face of Engineering,” is developing a pediatric device to improve the overall health and survival rate of newborn babies.

“I was extremely excited about the accolade, I hope this award will encourage young engineers to explore the wealth of career options that exist for

engineers ranging from entrepreneurship to field research. Specifically, I also hope that this award will encourage young women to pursue careers in the transformational field of engineering,” Gaspard said.

To ensure that her pediatric technology will make it to hospitals and home nurseries where it could help infants, Gaspard founded a startup company called TLneoCare LLC. Through TLneoCare she is commercializing a new neonatal physiotherapy unit that is designed to soothe and improve the health of newborns. To complete her studies, she is also developing a diagnostic medical instrument for early pressure ulcer detection.

“Sanna’s unique mix of creativity, resourcefulness and drive coupled with her strong work ethic make me think of the ‘Energizer Bunny’ of biomedical engineering — she is particularly good

at knocking down obstacles in the way of her research goals. She is poised to have great impact in the biomedical device community,” said Todd Przybycien, a professor of chemical and biomedical engineering and Gaspard’s Ph.D. adviser.

A native of the Caribbean island of St. Lucia, Gaspard had initially wanted to be a neonatologist, but she was uncomfortable working in a hospital environment. Her fascination with science and a natural drive to deconstruct objects as a child led her to pursue a graduate degree in biomedical engineering in 2004.

She is a member of the IEEE’s Engineering in Medicine and Biology Society, IEEE’s Instrumentation and Measurement Society and she founded the award-winning Graduate Biomedical Engineering Society of Carnegie Mellon.

Grad Student Uses Body as Machine With Skinput

■ Byron Spice

Chris Harrison has a knack for invention and takes particular delight in those that “blur the line between technology and magic.” And perhaps nothing he has invented to date comes closer to obliterating that line than Skinput, a bio-acoustic device that turns a person’s arms, fingers and hands into the equivalent of a computer touchpad.

People can use Skinput to control smart phones or other mobile devices by flicking or tapping their fingers, or by rapping on their forearms.

“With Skinput, we can use our own skin — the body’s largest organ — as an input device,” said Harrison, a third-year Ph.D. student in the Human-Computer Interaction Institute (HCII). “It’s kind of crazy to think we could summon interfaces onto our bodies, but it turns out to make a lot of sense. Our skin is always with us, and makes the ultimate interactive touch surface.”

Skinput thus could enable people to take better advantage of the tremendous computing power available in portable devices by foregoing the tiny keypads and other miniature input surfaces typically used to control them, he said.

Harrison will describe the technology in a paper to be presented at CHI 2010, the Association for Computing Machinery’s annual Conference on Human Factors in Computing Systems, April 10-15 in Atlanta.

Harrison developed Skinput last summer while an intern at Microsoft Research, working with the company’s Desney Tan and Dan Morris. It’s an extension of an earlier invention by Harrison called Scratch Input, which used acoustic microphones to enable users to control cell phones and other devices by

tapping or scratching on tables, walls or other surfaces.

For Skinput, highly tuned vibration sensors, called cantilevered piezo films, are attached to the body. The sensors detect the sounds of finger taps and flicks as they are carried by transverse waves through the skin and by longitudinal, or compressive, waves through the bones.

“There’s nothing super sophisticated about the sensor itself,” Harrison said, “but it does require some unusual processing. It’s sort of like the computer mouse — the device mechanics themselves aren’t revolutionary, but are used in a revolutionary way.”

Harrison and his colleagues found that the tap of each fingertip, a tap to one of five locations on the arm, or a tap to one of 10 locations on the forearm produces a unique acoustic signature that machine learning programs could learn to identify. These computer programs, which improve with experience, were able to determine the signature of each type of tap by analyzing 186 different features of the acoustic signals, including frequencies and amplitude.

In a prototype developed by Harrison, Tan and Morris, the acoustic sensors are attached to the upper arm. The armband also includes a small projector that can superimpose colored buttons onto the wearer’s forearm, which can be used to navigate through menus of commands or can project a keypad onto the palm of the hand. Though the prototype is bulky, Harrison said it could be easily miniaturized so that it could be worn much like a wrist watch.

Simple devices, such as MP3 players, might be controlled simply by tapping fingertips, without need of su-

perimposed buttons; in fact, Skinput can take advantage of proprioception — a person’s sense of body configuration — for eyes-free interaction.

In a trial involving 20 subjects, the system was able to classify the inputs with 88 percent accuracy overall. Accuracy depended in part on proximity of the sensors to the input; forearm taps could be identified with 96 percent accuracy when sensors were attached below the elbow, 88 percent accuracy when the sensors were above the elbow. Finger flicks could be identified with 97 percent accuracy.

Testing indicates the accuracy of Skinput is reduced in heavier, fleshier people and that age and sex might also affect accuracy. Since joining the HCII in 2007, Harrison has developed a reputation for invention. Last year, with help

from the QoLT Foundry, he launched a company, Invynt LLC, to market a technology he calls “Lean and Zoom,” which automatically magnifies the image on a computer monitor as the user leans toward the screen.

Harrison also has developed a technique to create a pseudo-3D experience for videoconferencing using a single webcam at each conference site. Another project explored how touchscreens can be enhanced with tactile buttons that can change shape as virtual interfaces on the touchscreen change.

“Chris is a rising star,” said Scott Hudson, HCII professor and Harrison’s faculty adviser. “Even though he’s a comparatively new Ph.D. student, the very innovative nature of his work has garnered a lot of attention both in the HCI research community and beyond.”



SINCE ARRIVING AT THE HCII, CHRIS HARRISON HAS DEVELOPED A REPUTATION FOR INVENTION WITH SEVERAL CREATIONS, INCLUDING HIS NEW PROJECT, SKINPUT.

PHOTO COURTESY OF CHRIS HARRISON

Ken Chu Takes Center Stage in CFA's Costume Shop

■ Melanie Linn Gutowski

Serendipity is a word that Ken Chu never expected would define his career.

Chu, manager of the College of Fine Arts' costume shop, got his start in theater arts quite by accident.

As an undergraduate work-study student in the University of Massachusetts Amherst's Theater Department, Chu got a taste of his future career during his sophomore year.

"There was a play that needed an Asian actor, and no one else showed up for auditions," Chu said. "The people in the department asked if I'd like the part."

Though he had had no prior exposure to theater, Chu's experience in the play led him to change his major to the discipline and embark on the program's survey course, which included costume design.

"After that, I decided to do this for the rest of my life," Chu said.

After completing his master's degree in costume design at the University of Texas at Austin in 1996, Chu moved to New York City, where he lived for the next seven years, freelancing Broadway projects such as "The Lion King," "Rent" and "Victor/Victoria."

However, Chu's passion soon turned from design to management.

"As soon as I graduated from school, I decided that I like to be a project manager," Chu said. "I do design, but I'm really an administrative guy. I'm the interface between the people who make stuff and the designers."

Chu came to Carnegie Mellon following a two-year stint at Hong Kong Academy for the Performing Arts, "the Julliard of Asia," as he calls it. Though he thrived in Hong Kong, he returned to the U.S.

"The way the industry works, if you're not current, it's hard to find work,"

he said. "So I decided to come back."

It turned out to be another lucky break. The College of Fine Arts was seeking a manager for its costume shop. Through a faculty acquaintance, Chu learned of the position.

Chu also teaches "Introduction to Costume Construction" for sophomores as well as a "Costume Management Seminar" for upperclassmen. The other part of Chu's role as costume shop manager is to serve as the bridge between the creative and technical ends of costuming.

"Usually, a designer is brought in to do costumes for a show, whether a student or professional," Chu said. "The designer works with the rest of the artistic team — sets, lighting, choreographer, director — to conceptualize the show. They decide the look, the feel; how they're going to tell the story."

"Then I'm brought in and the designer walks me through what they're thinking. I get their renderings — drawings of the costumes — and, based on these elements, I figure out the budget for our labor and material costs."

Chu calculates how many hours are needed to handle the costume production work for each show. He then develops a production schedule.

Occasionally, third-party contractors are needed, especially if the show calls for specialized work.

"That's when he calls me in, when there's too much work for his shop to do — that's when he'll outsource work," said Marianne Krostyne, a professional draper and owner of Krostyne Studio on the city's North Side.

Krostyne has worked extensively with Carnegie Mellon students, both on campus and in her studio. She was acquainted with Chu prior to his arrival



KEN CHU RUNS THE UNIVERSITY'S COSTUME SHOP.

at the university in 2007.

"The professionalism of that shop has grown exponentially since his arrival," Krostyne said.

"He's still affiliated with a lot of New York shops and can give his students exposure to what they'll experience in the profession," Krostyne said. "He is constantly challenging them and pushing them to the next level. Sometimes they think he picks on them, but he's hard on the people who have the ability to do more. He recognizes ability."

Kim Lorentz, a second-year graduate student in costume design, is one such student. Chu picked her to work in Krostyne's studio as a stitcher on a professional show.

Chu also helped Lorentz with her off-campus project for the fall 2009 term. She worked as a costume designer for the Pittsburgh Opera's production of "The Rape of Lucretia," which has completed its run at CAPA Theater.

"Since my normal advisor had never worked with [the Opera's personnel]

and Ken had, he came to all the meetings with me to help me make decisions. It's good that he's around a lot — he's been a huge help in interfacing between the Pittsburgh Opera's shop and me," Lorentz said.

"He's sort of a perfectionist, which really helps a lot because many of us are used to doing things more sloppily," Lorentz said. "It's making me better at construction and thus better at costume design, which is the ultimate goal."

Chu also volunteers his time around campus, having been elected Staff Council treasurer last year. In addition to managing the organization's budget, Chu hosts brown bag lunches for CFA staff as an opportunity to ask questions and express concerns, which he relays to council.

Though his career path has been varied, Chu said he is content to stay in education.

"I don't imagine going back to the profession," Chu said. "I'm pretty happy here."

PHOTO BY TIM KAULEN

Carnegie Mellon Qatar Aids Academy With Tablet PC Knowledge

■ Andrea L. Zrimsek

When the seventh- and eighth-grade classes at Qatar Academy were given Tablet PCs — but no instruction on how to use them — school officials turned to Carnegie Mellon Qatar for help.

"If the students are given the technology, then the teachers need to learn how to use it to aid them in the classroom. That's where we come in," said Professor Andreas Karatsolis. "Carnegie Mellon has developed a lot of the types of applications used on Tablet PCs, so we are able to teach the teachers the best ways to use the Tablet PCs to their advantage."

CMU's Pittsburgh campus is home to one of the leaders in Tablet PC.

Ananda Gunawardena is a computer science professor, who has been developing Tablet PC applications such as MathWiz, Flashcards and Lemonsketch. These applications are free for the educational community.

"These machines can change the whole dynamic of the classroom. They allow teachers to communicate constantly with students," said Mark LeSurf, head of the technology department at Qatar Academy. Le Surf said seventh and eighth grade is a good age to introduce this kind of technology because students are moving into a high level of thinking.

With a Tablet PC, there is no monitor blocking the student from the

teacher's line of sight, so students cannot be on Facebook or playing games such as Halo. Also, the Tablet PCs can be networked so assignments can easily be exchanged between teachers and students. Qatar Academy has a wireless projector so teachers can project from their machines to the whole class, which Le Surf says keeps students more engaged.

The machine also allows teachers to see what notes students take during a lecture and monitor the progression of a student's work on a math problem. Capturing the math work is an important aspect of WeMath, a platform to help teachers and students collaborate on working through math problems.

piperTRIVIA

Congratulations to Donna E. Klaas, Jacqueline K. Goslin and Keshani Kristelle Kouzoujian for knowing Peter Stumpf takes care of 80 pianos at the university.

Go online to the Piper+ at <http://bit.ly/CMUpiper> for this month's question. Previous winners are ineligible. Winners will receive a prize from the Carnegie Mellon Bookstore.

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Staff See Development Day as Opportunity To Learn

■ Heidi Opdyke

While students were out for spring break, university employees were in the classroom. Learning and Development hosted its first-ever Staff Development Day on March 8, and more than 200 people attended the event, which featured three sets of concurrent sessions.

Some of the most popular topics were “Transitioning to Excel 2007,” “Getting Started with Social Media,” “Does it Matter How People Feel in the Workplace?” and Michael Murphy’s luncheon remarks on what it means to work at Carnegie Mellon. Murphy said he was proud to be a part of the university, and said that we are collectively creating the ideal community for solving the world’s problems.

“The work is in our heart. We are passionate with what we are doing, and we are concerned with the outcome,” Murphy said.



PHOTO BY DAVID HOLZEMER

RON PLACONE, ASSOCIATE VICE PRESIDENT OF LEARNING AND DEVELOPMENT, TEACHES A SESSION DURING THE STAFF DEVELOPMENT DAY.

Terri Jones Davis, administrative financial assistant in the Psychology Department, called the day a total crash course for her.

“There was a lot of good information for me to think about,” Davis said. One of the sessions she took was Interactive Theater, which allows audience members to view different workplace and campus scenarios dealing with issues such as diversity, sexual harassment and conflict. After the skit has been performed, the actors stay in character, allowing participants to ask questions and gain insight into the motives prompting their behavior. The skit she saw, “The Fix,” was one she had seen before.

“But seeing it a second time, allowed me to pick up more things that were projected. I probably would see it a third time,” she said.

Brian Penak and Greg Tarr, from

Finance, found the sessions helpful.

“There were things that I had been curious about and most of those questions were answered in the session,” Penak said. “There was a lot of good substance in the sessions.”

Tarr said he learned more about the university and met new people.

“I’ve worked at quite a few places. A lot of times, you don’t get the opportunity to learn about the place where you work,” Tarr said.

Heather Wainer, administrative coordinator for Learning and Development, said a second Staff Development Day is being planned for March 2011. In addition, the biannual Leadership Symposium will be held in January, which is a similar event with sessions geared to university leaders and managers.

For more information on Learning and Development programs, visit www.cmu.edu/hr/learning/.

Census 2010: Making Sure You Count CONTINUED FROM PAGE ONE

to complete and return the 10-question survey, using April 1 as the reference date. It may sound fairly simple, but getting something close to an accurate count has proved to be quite difficult for several reasons. The mail response rate in 2000 was only 72 percent.

“Convincing people to fill out the form and send it in is a big challenge,” said Stephen Fienberg, the Maurice Falk University Professor of Statistics and Social Science and one of the country’s leading census experts. “It’s all about awareness. Not everyone understands the importance of accurate census data, and there are some who are wary of what the government will do with the

information. Responding to the census is a civic responsibility.”

Add in the dynamics of a university community that has students living on and off campus and non-U.S. citizens, and the process can get even more confusing. To help ensure that Carnegie Mellon is accurately counted, Fienberg built a Humanities and Social Sciences freshman seminar around it. This semester, his 13 students are not only learning about the census and its history, controversies and methods, but they’re also working on projects to help communicate census information to different campus audiences.

“It’s important to make sure that

everyone at Carnegie Mellon — faculty, staff and students — understand how they need to participate in the census,” Fienberg said. “For example, students living on campus will get their forms through the resident assistants under the supervision of the registrar. They’re counted here, not at their parents’ house.”

Faculty, staff and graduate students should have already received their forms at their residential mailing address. “Everyone needs to complete and return it — even non-U.S. citizens,” Fienberg said. “Being counted will help give Pittsburgh, Allegheny County and Pennsylvania an accurate count, and is crucial for our future.”

Fienberg had his students form groups to target specific campus population segments. They have also created vehicles, such as a Web site (www.cmu.edu/census) and videos, to help get the message out. They will work on follow-up campaigns throughout April.

Fienberg also brought several speakers to the class including current U.S. Census Bureau Director Robert Groves and former U.S. Census Bureau Director Barbara Bryant. “This only happens once every 10 years,” Fienberg said. “It’s been fun to see the students learn about the census and really start to become passionate and very knowledgeable about its role in our lives.”

NEWS BRIEFS

University Wins Prestigious Simon Award

Carnegie Mellon is one of five higher education institutions that will receive the 2010 U.S. Senator Paul Simon Award for Comprehensive Internationalization from NAFSA: Association of International Educators during the NAFSA annual conference June 4 in Kansas City, Mo. This prestigious award reflects Carnegie Mellon’s position as one of the world’s elite top-tier global universities and recognizes the university’s accomplishments in preparing students to address society’s most pressing challenges.

“Carnegie Mellon’s focus on internationalization is reflected not only through a curriculum that enhances global understanding, but also through our international students here, our international research and education partnerships, and through our relationships with alumni all over the world,” said Vice Provost for Education Indira Nair, who has helped to lead international curriculum development at the university.

University Makes Service Honor Roll for Third Year

For the third year in a row, Carnegie Mellon has been named to the President’s Higher Education Community Service Honor Roll by the Corporation for National and Community Service. This recognition from the highest levels of the federal government acknowledges the university’s commitment to service. Honorees are chosen based on scope and innovation of service projects, percentage of student participation in service activities, incentives for

service and the extent to which the school offers academic service-learning courses.

Bring Your Sons, Daughters To Work

Register now for “Take Our Daughters And Sons To Work Day” on Thursday, April 22. Sponsored by Staff Council, activities are geared toward children aged 9-14. University events will include recreation time, a lunch program and other activities. To register, visit www.andrew.cmu.edu/org/todtw.

Skinner Appointed To Bush Project Advisory Board



Kiron Skinner, associate professor of social and decision sciences and head of the International Relations and Politics Program, has been appointed to the advisory board of the official oral

history project for former President George W. Bush. The project of the Miller Center of Public Affairs at the University of Virginia, the only institution that conducts oral histories of former presidential administrations, will document the life and career of the 43rd president with a focus on the White House years. Unbiased scholarly interviews will be done with individuals who are the most familiar with the Bush presidency. Skinner, an international relations and foreign policy expert, has authored “Turning Points in Ending the Cold War” and co-authored “The Strategy of Campaigning: Lessons from Ronald Reagan and Boris Yeltsin” with former Secretary of State Condoleezza Rice. Skinner is the W. Glenn Campbell

Research Fellow at the Hoover Institution at Stanford University.

Carnegie Mellon Offers Dual Ph.D. Program With University in Singapore

Carnegie Mellon and Singapore’s Nanyang Technological University (NTU) have established a dual Ph.D. program in engineering. Candidates who successfully meet the academic requirements of both NTU and CMU will be awarded doctoral degrees by both universities. Students will spend at least two academic years at NTU and another two academic years at CMU with a co-adviser from each university to guide them in their research.

“We are delighted that Carnegie Mellon’s Mechanical Engineering Department will be involved with this innovative dual Ph.D. degree program with Nanyang Technological University,” said President Jared L. Cohon. “Carnegie Mellon has a longstanding tradition of collaborating with top universities around the world to provide opportunities for our students to learn in competitive and entrepreneurial environments. This agreement will enable Ph.D.

Film Grows From Community Gardeners' Struggle

■ Shilo Raube

When director Scott Hamilton Kennedy heard about a mysterious eviction notice that threatened the future of a 14-acre Los Angeles community garden — the largest of its kind in the United States — he decided to do something to help the South Central farmers. He picked up his camera and followed the story.

“After 12 years of amazing success rebuilding a community after the '92

choose topics that interest me and hope as an artist other people are interested in them. What's really exciting is how emotional people get after seeing it. They ask questions, talk about it and want to know more.”

Jolanta Lion, Carnegie Mellon's International Film Festival director and Humanities Center assistant director, isn't surprised at the film's appeal. “‘The Garden’ takes real people and

2010 INTERNATIONAL FILM FESTIVAL, WWW.CMU.EDU/FACES

L.A. riots, bulldozers were about to tear apart their land,” said Kennedy. “The farmers wanted to fight.”

Kennedy's camera followed them as they organized and tried to figure out what was happening. Why was the land sold for millions less than fair market value? Why did the city council make these decisions behind closed-door meetings?

“It's a great American story on many levels,” he said. “It's a classic story about justice, race, class and how we define ourselves as Americans.”

The resulting film, “The Garden,” went on to become a critical success, winning Best Documentary at the 2008 Camden Film Festival and the 2009 Florida Film Festival. It received the 2008 Silver Docs Award for Best Documentary and earned a 2009 Academy Award Nomination for Best Documentary Feature.

“The accolades were surprising,” Kennedy said. “As a filmmaker, I

their lives and makes them the face of environmental justice, race and political issues,” she said. “That's why it is perfect to include in this year's festival. We're screening films that tell actual stories about topics that can seem abstract — like climate change, global war, aging and border issues.”

The 2010 International Film Festival, “Faces of Globalization,” runs through April 24. Screenings of “The Garden” will take place at 7:15 p.m., April 7 at the Kelly Strayhorn Theater and at 7:15 p.m., April 8 at Carlow University's AJ Palumbo Hall. Kennedy will be at both screenings to answer questions and discuss the film.

For a complete schedule of this year's International Film Festival — which consists of 14 critically acclaimed feature films and a new International Student Short Film Competition — visit www.cmu.edu/faces. To watch a trailer of “The Garden,” visit www.thegardenmovie.com.

GLOBAL PERSPECTIVES



PHOTO BY KEN ANDREYO

Former U.S. Ambassador to Finland Barbara M. Barrett and her husband, former Intel Corporation CEO and Chairman of the Board Craig R. Barrett, discussed their careers during a late March visit to Carnegie Mellon. Barbara Barrett compared Finland's transformation into a global technology power, to Pittsburgh's transformation from a steel city to one with an economy based on education and technology. When asked by President Jared Cohon how Intel was able to survive the dot com bust, Craig Barrett said that he believes in investing during a recession in order to come out of it stronger, and that's what Intel did instead of cutting back.

Burkert To Serve CONTINUED FROM PAGE SIX

spells extraordinary things for the future of the university,” Prakash said.

Burkert says she has a lot to learn and is eager to meet with each dean, department head and director of the many units across campus “to put my finger on the pulse of what's happening, explore the key issues, determine what is working and to envision together ways we can improve and move forward.”

“At Carnegie Mellon we have been innovators in education just as we are in research. I hope to be able to continue to build on that legacy,” she said. “This is an amazing environment in which bridges can actually be formed and sustained. There's always something that can be improved or a new approach that can be made possible through collaboration.”

Burkert shared that she feels fortunate to have been mentored for many years by the current vice provost, Indira Nair. She said one of the most important things that Nair has told her is to approach the position as being the university's voice for education, a leader who serves the university by supporting and enabling all of its students and faculty to do great things. Burkert stands ready to serve.

candidates, both in Pittsburgh and Singapore, to work with some of the top minds in a variety of academic disciplines.”

Hendrickson Leads Team Tracking Water Usage

Chris T. Hendrickson, the Duquesne Light Professor of Civil and Environmental Engineering, is leading a comprehensive study to determine how U.S. industry is using water. The study shows that most water use by industry occurs indirectly as a result of processing, such as packaging and shipping of food crops to the supermarket, rather than direct use, like watering crops.



“The study gives us a way to look at how we might use water more efficiently and allows us to hone in on the sectors that use the most water so we can start generating ideas

and technologies for better management,” said Hendrickson, co-director of the Green Design Institute, a major interdisciplinary research

effort aimed at making an impact on environmental quality through design.

Civil engineering Ph.D. candidates Michael Blackhurst and Jordi Vidal worked with Hendrickson on the study, which was featured in the Feb. 23 edition of the journal Environmental Science & Technology.

Vol. 24 Factbook Is Now Online

Volume 24 of the Carnegie Mellon University Factbook is now available at www.cmu.edu/ira/factbook/facts2010.html. This annual resource is a compilation of commonly requested data as well as comparative data from other universities. The Factbook is available both in its entirety and in sections that are introduced by a table of contents with active links to the data tables. Read the introduction to each section prior to reading the data, as the introduction provides valuable definitions and assists in correctly interpreting the data tables.

Efros Receives Finmeccanica Chair



Alexei Efros, associate professor of robotics and computer science, has been awarded a three-year Finmeccanica Career Development Chair.

Since 1989, the Italian conglomerate Finmeccanica has endowed a chair to support outstanding young faculty members in the School of Computer Science. For the first time, however, the endowment is now supporting two simultaneous chairs — one filled by Efros and another that was filled last year by Carlos Guestrin, associate professor of machine learning and computer science.

“Alexei and his students have been doing amazing research on image analysis and generation,” said Randal E. Bryant, SCS dean. “Their feats include converting single, two-dimensional images into 3-D renderings, building software tools for editing photos and automatically identifying where a photo was taken.”

Quality of Life Technology Foundry Receives NSF Grant

The Quality of Life Technology (QoLT) Foundry, which helps start-up firms that commercialize technologies associated with the QoLT Center, is now expanding thanks to a three-year, \$1.5 million Innovation Award from the National Science Foundation. Established in 2008, the QoLT Foundry is directed by Curt Stone, a veteran entrepreneur who is an executive-in-residence at Carnegie Mellon. This NSF funding will allow the foundry to expand its programs by hiring people with experience as entrepreneurs within particular technology domains and to develop undergraduate and graduate internship programs.

“Quality of Life Technologies may be created with older people and those with disabilities in mind, but they often have broad applications that could enrich the lives of all people,” said Rick McCullough, Carnegie Mellon vice president for research and principal investigator for the new NSF grant. “The QoLT Foundry already has spun off three firms based on QoLT-associated inventions, and we envision even greater success with the help of this new funding.”

LECTURE SPOTLIGHT: VIRUSES INTRIGUE CHEMIST

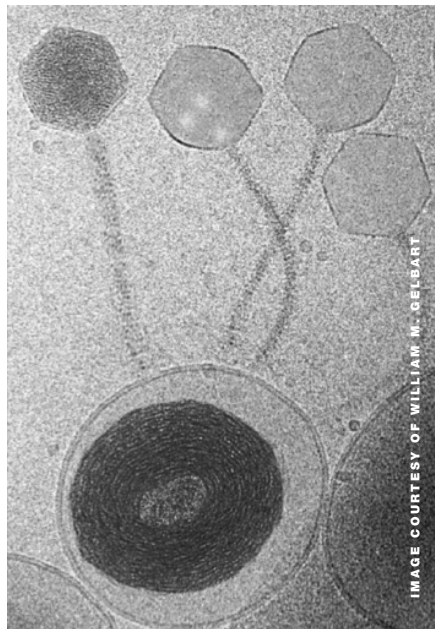
■ Jocelyn Duffy

Viruses are some of the most prevalent and deadly disease agents, causing diseases like influenza, hepatitis and AIDS. However, the physical structure of a virus is considered to be one of the most beautiful, symmetric and astonishing structures found in biology.

Chemist William M. Gelbart, a leader in biophysical virus research, will talk about viral physics at this year's Buhl Lecture, at 4:30 p.m., Wednesday, April 28 in the Mellon Institute Auditorium.

Gelbart, who is a distinguished professor of chemistry and biochemistry at UCLA, began his scientific career in the mid 1970s. He became a pioneer in the field of complex fluids, making significant contributions to the fundamental theory of liquid crystals, self-assembling systems, polymer solutions, nanoparticles and biological membranes.

Gelbart became intrigued by viruses and set out to try to understand how they



IN AN IMAGE FROM GELBART'S RESEARCH, T5 VIRUSES ATTACH TO THE MEMBRANE OF AN EMPTY CELL, INJECTING THEIR DNA.

infect their host organisms. To do this, he and his colleague, Charles M. Knobler,

WHO: WILLIAM M. GELBART, DISTINGUISHED PROFESSOR OF CHEMISTRY AND BIOCHEMISTRY AT UCLA

WHAT: BUHL LECTURE, "VIRUSES FROM SCRATCH"

WHERE: MELLON INSTITUTE AUDITORIUM

WHEN: 4:30 P.M., WEDNESDAY, APRIL 28

decided to investigate viruses outside of their hosts, making simple viruses "from scratch," which they isolated in test tubes. This method allowed Gelbart and his colleagues to study the physical properties of viruses; results of such work could provide new targets for disease prevention and treatment.

Gelbart's research has been recognized with many awards, including the 1991 Lennard-Jones Medal of the British Royal Society, a 1998 Guggenheim Fellowship, the 2001 Liquids Prize

of the American Chemical Society and election to the American Academy of Arts and Sciences in 2009. He served as chair of the Chemistry and Biochemistry departments at UCLA.

The Buhl Lecture is sponsored by Carnegie Mellon's Department of Physics. The lecture is funded under the auspices of the Buhl Professorship in Theoretical Physics, which was established at Carnegie Mellon in 1961 by The Buhl Foundation. The lecture is free and open to the public.

Portugal GRADUATES CELEBRATE SUCCESS

■ Chriss Swaney

Carnegie Mellon President Jared L. Cohon was on hand as 60 newly minted scholars from the prestigious Carnegie Mellon/Portugal Program were honored on Feb. 22 during a graduation ceremony in Portugal. Graduates were from the Universidade de Aveiro, the Universidade de Coimbra, the Universidade de Lisboa, the Universidade de Madeira and Carnegie Mellon. Students from the classes of 2008 and 2009 received professional master's degree diplomas in information networking, software engineering, information technology and information security, and human-computer interaction.

"We at Carnegie Mellon are pleased and proud of the great progress we have made in Portugal. We have forged strong partnerships and established world-class educational and research programs, which are already contributing to Portugal's progress. There is no better indication of our success than the new graduates from our joint programs," Cohon said.

In October 2006, Carnegie Mellon and the Portuguese government, through its Ministry of Science, Technology and Higher Education, entered into a long-term collaboration to significantly expand research and education in the area of information and communication technologies.



PRESIDENT JARED COHON ADDRESSES GRADUATES DURING A RECENT CEREMONY IN PORTUGAL.

Energy Fuels Secretary Chu's Visit to Qatar



U.S. SECRETARY OF ENERGY STEVEN CHU IS GREETED BY CARNEGIE MELLON QATAR DEAN CHARLES E. THORPE DURING CHU'S VISIT TO CARNEGIE MELLON QATAR IN LATE FEBRUARY. CHU DELIVERED A LECTURE TO STUDENTS, FACULTY, MEMBERS OF THE EDUCATION CITY COMMUNITY AND GUESTS FROM THE OIL AND GAS INDUSTRY. CHU'S VISIT FOLLOWED A VISIT BY U.S. SECRETARY OF STATE HILLARY RODHAM CLINTON, WHO ADDRESSED STUDENTS AND MEMBERS OF EDUCATION CITY.

"I AM DELIGHTED TO BE HERE AT EDUCATION CITY AND CARNEGIE MELLON UNIVERSITY IN QATAR," CHU SAID. "INNOVATION AND EDUCATION CAN PROVIDE THE WORLD WITH A NEW ENERGY SOLUTION. WE HAVE TO WORK TOGETHER TO FIND THE SOLUTION."

CHU TOOK QUESTIONS FROM STUDENTS AND GUESTS ON A RANGE OF TOPICS INCLUDING U.S. ENERGY POLICY, ENERGY PRICING AND WAYS TO REACH A GLOBAL AGREEMENT ON REDUCING EMISSIONS. CHU ALSO DISCUSSED QATAR'S LEADERSHIP ROLE IN LIQUEFIED NATURAL GAS, BIO-FUELS AND THE IMPORTANCE OF EDUCATION TO DEVELOP AND RESEARCH NEW ENERGY TECHNOLOGIES.