Memory advance would extend mobile-device battery life

By Liz Ahlberg
Physical Sciences Editor

Technophiles who have been dreaming of mobile devices that run longer on lighter, slimmer batteries may soon find their wish has been granted.

UI engineers have developed a form of ultra-low-power digital memory that is faster and uses 100 times less energy than existing devices with a significant improvement in battery life. Right now, a smartphone loses a little jolt of electricity to zap the PCM bits.

“The energy consumption is essentially scaled by the volume of the memory bit,” said graduate student Feng Xiong, the first author of the paper. “By using nanoscale contacts, we are able to achieve much smaller power consumption.”

To create a bit, the researchers place a small amount of PCM in a nanoscale gap formed in the middle of a carbon nanotube. They can switch the bit “on” and “off” by passing small currents through the nanotube.

“Carbon nanotubes are the smallest known electronic conductors,” Pop said. “They are better than metal at delivering a little jolt of electricity to zap the PCM bit.”

Nanotubes also boast an extraordinary stability, as they are not susceptible to the degradation that can plague metal wires. In addition, the PCM that functions as the actual bit is immune to accidental trauma from a passing scanner or magnet.

The low-power PCM bits could be used in existing devices with a significant increase in battery life. Right now, a smartphone loses a little jolt of electricity to zap the PCM bits.

“Anytime you’re running an app, or storing MP3s, or streaming videos, it’s draining the battery,” said Albert Liu, a graduate student and co-author. “The memory and the processor are working hard retrieving data. As people use their phones to place calls and use them for computing more, improving the data storage and retrieval operations is important.”

Pop believes that, along with improved battery life, future improvements are important.

“By using nanoscale contacts, we are able to achieve much smaller power consumption.”

Group working to foster preservation of campus treasures

By Mike Holenthal
Assistant Editor

The UI’s Alma Mater statue – with its welcoming outstretched arms at the corner of Green and Wright streets – is the most widely recognized and photographed campus icon. But without preservation efforts, the green-streaked and deteriorating statue is in jeopardy.

“It’s falling apart right in front of our eyes,” said Jennifer Hain Teper, a conservation librarian and the chair of the UI’s Preservation Working Group. “It’s one of those things that we assume people are caring for.”

The statue – erected in 1929 in its “temporary” location on the south campus behind what then was called the Auditorium and moved to its current location in 1962 in Urbana – is part of a long and growing list of endangered campus treasures the group has identified for preservation work. And, members say, time is of the essence.

“We take things for granted,” said group member Jack Brighton, the director of new media and innovation at Illinois Public Media. “We tend to not think that some of these things require care over decades.”

In 2005, the group conducted a campus-wide Web survey that identified preservation projects across 25 units. In 2009, members conducted in-person interviews and a more-detailed survey with respondents. While the Alma Mater ranked high on the list, dozens of other projects remained.

The group formed in 2003 as part of the chancellor’s Cultural Engagement Council and became autonomous in 2006. Around that time it was also awarded a $250,000 grant from the Institute of Museum and Library Services, based in Washington, D.C. A portion of the grant was used to set up a Web-based audiovisual preservation self-assessment tool for use by any campus unit and the public.

Since that time, members have gone back to the responding units to try to solve some of the preservation challenges – but the list keeps growing.

“We know we didn’t get everything (on campus),” Teper said. “It’s just a tiny scratch of the surface. But we knew there were some practical things we could start doing.”

She said several factors make the task difficult, and most of them are directly related to funding.

Many times a unit simply may not have the space storage needed to preserve objects, or the collection in question requires a controlled environment.

Some projects present their own special problems – like the 380 string-based Sexton Preservation.
Civil service audit could mean reclassifying some positions

By Mike Helenthal

The Urbana campus has begun preparations for a June audit by the State Universities Civil Service System.

“We’ve already received the data request for the 2008 SUCSS audit,” said Maureen Parks, executive director and associate vice president for the university’s Office of Business and Finance. “We said campus human resources staff are members of departments and unit departments to begin gathering information to prepare for the audit.”

Parks said the standard audit is conducted every two years at each Illinois university and that it is determined whether the campus is following the information criteria for the audit or if the college has deleted some of the positions in Urbana have already been reclassified.

Parks said a vigorous effort is being made on campus, reported Chicago auditor had “opened the conversation” about the corrections of a similar review on the Urbana campus. He said a significant number of employees have reclassified academic professionals for a June audit by the State Universities Civil Service System. "We’ve already received the data request for the 2008 SUCSS audit," said Maureen Parks, executive director and associate vice president for the university’s Office of Business and Finance.

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Parks said the payroll mistake led to an Internal Revenue Service work order for the past two years and a committee that is supposed to be withholding from the value of earnings.

"We think the medical center (concerned about the audits) may not have been reflective at all of the work they may put up at the Urbana campus," said Parks. "There are many, many classifications that are specific to the medical center that is very different than the College of Liberal Arts and Sciences."

She said Chicago-chicago-administrators are continuing to figure out which classification is based on the audit’s findings and the campuswide job analysis process, covering about 4,000 APDs, could take another year to complete.

She said even if classification changes were made in Urbana, job descriptions would not necessarily change and administrators would have an opportunity to review them before any changes were made. Parks said administrators have been concerned about reclassification because reclassification could mean a “loss of flexibility” associated with filling academic professional jobs at the university. She said benefits and rights associated with civil service positions might pose difficulties because APs normally perform “very specialized work” not easily transferable among units. The Council of Academic Professionals has a statement on its website informing the approximately 4,000 APDs on campus of the impending audit and the results of its task force study on the issue.

Civil service audit could mean reclassifying some positions

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On the Job

Barbara VanDeventer is an office administrator in the department of food science and human nutrition.

How long have you worked at the UI?
I started in December 1984 as extra help with the Division of Foods and Nutrition, but then in January ‘95 I went full time.

I take care of all the timetable issues, class scheduling, setting up classes, helping with registration, that type of thing. I also help Faye Dong, our department head, assign teaching assistant positions. Basically any secretarial-type tasks that have to do with the students – I take care of that.

What do you do in an average day?
During registration I check Banner to see if there’s any situation that I need to address; add more classes, add more seats to a class or change a restriction. Because I’m the departmental scheduler, I’m the person who enters things into the Enterprise System for courses. I have to check with faculty members about which textbooks they might want or if they want the course restricted to only sophomores or if they need to change the grade they’ve assigned to someone – anything that’s related to the classes and the department courses, I take care of. I also help cover the front desk sometimes.

I have a lot of interaction with students. I had a question come in today about how to set up residency in Illinois. If I don’t know the answer, I try to call someone who I think will know or I send a note out to all my colleagues in the college. We have a network of people in the other departments who do the same kind of work I do, so I send an e-mail out to see if anybody knows the answer. We help each other when we can. We network a lot.

I support a lot of committees here in the department, too. Today I sent out the call for departmental awards, and those nominations will come back to me and I’ll prepare a summary for the committee to review. I help with the courses and curriculum committee if we have to change anything. We just had an update to our dietetics curriculum, so I submitted all that paperwork.

Are there any food-related perks in your job?
It’s a big joke that I’m a terrible cook, so the instructor of FSHN 131 (“Introductory Food Laboratory”) told me there was an opening in her class and let me audit it. I was struggling with just the one class and the other students are taking five. I don’t know how they do it. As a student in the cooking class you get to taste everything that was made. Our grad students have a lot of research projects that need people to sample their products. They really tricked us on one of them: The e-mail said, “Interested in chocolate?” But when we got there for the survey it was evaluating salad dressing viscosity and they gave us a bite-size candy bar afterward. I know how important it is for the students to get their sensory evaluation, so I try to volunteer. Also, I’m on the same floor as the Bevier Café, so sometimes at the end of the school year if they have extra good things they’ll bring them down.

What is your favorite part of your job?
 Definitely interacting with the students. Because the grad students study here for three to five years, you get to know them. I don’t get to know the undergraduates as well, but I just love talking to the students. They’re from so many different places and I’ve always been here in Central Illinois, so when someone says they’ve been to Indonesia or Switzerland, it’s just so fascinating to me. I love talking to them.

So you grew up around here?
Yes. I live in Villa Grove. I started off at a Catholic grade school then went to Villa Grove for junior high and high school. I got married pretty much out of high school and started our family. Around 1991, I went back to college at Parkland. I got my associate’s degree in information processing in 1996.

Tell me about your family.
We’ve got three kids, and they’re all graduated college. My oldest daughter is the director of business operations at Krannert Center for the Performing Arts; my middle daughter is a lawyer; and my youngest daughter, who just graduated in December, wants to be a high school social studies teacher. I have two grand- children: Courtney just turned 11 and Carson will be 8 on St. Patrick’s Day. We say it’s his official birthday – not unofficial birthday, he doesn’t get two. My husband and I will have our 35th wedding anniversary in June.

What are some of your hobbies?
I love crossword puzzles. I also really like needlework; cross stitch is my favorite. I read newspapers every week for Illinois Radio Reader, a service for the visually impaired. My grandmother used to read textbooks to visually impaired people on campus. I thought it’s what she would want me to do. Also, I’d love to travel. I’m looking forward to my retirement. I really would like to explore the United States, there’s so much here I haven’t seen.

– Interview by Robert Kisting, intern

Increased efforts by campus police to curb crime paying off

By Mike Helenthal

Assistant Editor

Campus police say redoubled efforts aimed at stemming last year’s uptick in the number of reported crimes are paying off.

Security will continue to improve this year, with plans to increase the number of sworn officers by about 10 percent, the expansion of student-based crime-watch programs and a doubling of the campuswide security camera system.

“We continue to analyze opportunities and suggestions for improving our response for the crime issues on campus,” said Barbara O’Connor, executive director of public safety for the campus. “The campus has been engaged in many innovative and proactive strategies to enhance safety.”

O’Connor said seven officers have been hired in the past six months and the UI police force is expected to grow from 55 to 62 sworn officers sometime this year.

After crime-prevention training at the National Crime Prevention Institute in Louisville, Ky., two police officers will work with various divisions and groups on campus to help the community take a more active role in crime prevention.

Additionally, partnerships with Urbana and Champaign police departments and the Champaign County Sheriff’s and Probation offices have allowed officers to have a greater presence in Campustown to combat increased assault-and-battery crimes reported late spring to early fall 2010.

O’Connor said the increased police presence has led to several arrests and that some recent cases had been closed after investigators found the initial report to be false.

Public perception is sometimes affected in that crime alerts are sent out when a crime is reported, but not when a case is closed. Likewise, some reported cases are cleared as “unfounded” following a crime alert.

But eliminating crime isn’t just about adding more badges, according to O’Connor, who also is the police chief.

She said any long-term success depends on a multi-faceted approach stressing greater awareness and involvement by the campus community – an effort that’s already well under way.

“When a community comes together to make itself safer, individual members mobilize to make it hard for a person to commit a crime,” she said.

Established programs such as SafeWalks, which provides a campus police officer to escort anyone who has to walk campus alone, has seen participation rates spike, jumping from 211 SafeWalks escorts in the fall 2009 semester to nearly 800 last fall.

And more Rape Aggression Defense programs are starting, with an additional instructor on the force. Over the winter break the offices of the chancellor and provost sponsored two training sessions for staff members, and this spring four more have been added for students.

“We have had an upswing in requests for classes,” said Jeff Christensen, UI deputy chief of police. “We are also working with local agencies’ Rape Aggression Defense Staff.”

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photo by L. Brian Stauffer
mathematical models from the late 1800s kept by the mathematics department, the largest public collection outside of Gottingen, Germany. Repairing the models, used to diagram three-dimensional surfaces, requires someone with the expertise to clean and replace the stringing.

And what does one do about the 40,000-plus world soil samples dating back to the 1800s, currently stored at the South Farms? Mice have eaten off many of the labels and no one is currently in charge of caring for the collection.

Or the 40,000 Pennsylvanian Age fossils, also stored in a crumbling South Farms warehouse? The plant biology curator who looked after the fossils retired. Or the donated, one-of-a-kind, collection of 50,000 butterflies at the Illinois Natural History Survey? The collection includes several extinct Illinois varieties.

“The university is now responsible for the preservation of these specialists’ departments, the ones that public kind on the planet – and no longer available in Illinois or nature,” says an entry about the butterfly collection on the PWG website.

Teper said the problem goes beyond the simple existence of a collection.

“Sometimes it is a matter of not knowing that something they have has value or not knowing that certain things even exist,” she said. “Sometimes, things get lost when a unit moves into a new building. Often, saving information about the collection is as important as saving the collection itself, and that just complicates matters. There is example after example of historical artifacts that have simply disappeared over the years or which we no longer know why they were important – except that they were.”

According to Brighton, the saving of analog and digital Web-based information has become a historical preservation issue the group must tackle as well.

“The big question a lot of times is, ‘If you don’t need something, what exactly do you do with it?’” he said. “It’s in our best interest to take care of this stuff.”

Teper said the working group’s membership is broad enough to cover several areas and is offering members’ expertise to campus units looking to preserve their collections. She said the PWG offers storage or collection-saving advice. The group’s members include employees from a variety of campus units, including Spurlock, Museum, Krannert Arts Museum, Illinois State Archaeological Survey, Krannert Center for Performing Arts, University Library and Illinois Public Media, and they’ve formed partnerships with various state and federal preservation agencies.

“It has percolated to the top of our to-do list,” Teper said. “They recognize this is a need.

The results of the census will be used to develop a long-term strategy for the Urbana campus. “We’re asking people, ‘How much do you have and what is it?’” Cook said.

Just finding the proper recording format for materials can be tricky, Cook said, and there are fears that information collected and stored on many of the older information formats already has been lost.

“In many cases, we’re not just talking about a box of information – we’re talking about a whole room or a whole floor,” she said. “What we’re trying to find out with the survey is, ‘Who is in charge of it?’”

Cook said developing a better tracking system now is important and urgent because data, both analog and digital, “is being created faster than it was in the past.”

Once the campus survey is completed, she said the CME will use the collections on the list to establish best practices criteria for keeping them – and any newly identified collections – intact.

Having more complete information also will help with the storage and reformattting process.

“We get some formats that we just have no idea (what it is),” Cook said. Another prevalent problem is digital photos that don’t have individual file information, she said, meaning no identification or other important information is included.

Preservation efforts “Sometimes it is a matter of not knowing that something they have has value or not knowing that certain things even exist,” said Jennifer Hain Teper, a conservation librarian and the chair of the UI’s Preservation Working Group.

According to the group’s website, it exists “primarily to assist librarians and the chair of the UI’s Preservation Working Group. According to the group’s website, it exists ‘primarily to assist librarians and the chair of the UI’s Preservation Working Group. According to the group’s website, it exists primarily to assist librarians and the chair of the UI’s Preservation Working Group.’”

The survey gave us good data about the artifacts we have,” Teper said, “but we can’t provide funding, we can only help with grants. We can, however, provide expertise. We’re already making an impact.”

Brighton said one of the group’s biggest successes has been to bring the issue of preservation to the fore – and enlisting everyone with an interest.

“This has been the catalyst for a lot of collaboration,” he said. “We are a place where a lot of these conversations can start.”

Teper said the group is seeking grant opportunities for itself and to aid other campus groups looking to preserve important materials. It also has hosted preservation workshops, including an annual event aimed at teaching people how to preserve their family heirlooms and home movies, and plants to conduct more outreach.

She said members also would like to see the university, which regularly commissions art with for its ongoing maintenance.

And what about Alma Mater – will it be saved in time?

PWG members are hopeful and say they have gotten the attention of campus administrators, who are studying what to do next – and trying to figure out where the money will come from.

“Once the survey is completed, the statue was renovated in the 1980s. Since then rain has penetrated the structure. The cost and extent of the needed work is still unknown. “All of that dripping and running indicates advanced bronze disease,” said Christa Decay-Quinn, a PWG member and collections manager at Spurlock, “but there is still hope.”

Group looking to preserve multimedia treasures

By Mike Holenthal
Assistant Editor

“We don’t know what it is, we don’t know where it is.”

That’s the assessment of Colleen Cook, digital media coordinator for the Online and Continuing Education, of the Urbana campus’ vast, yet undiscovered, multimedia collection.

“Cook, who works in the office’s ATLAS Digital Media Division, also is a member of the volunteer-based Center for Multimedia Excellence, a group trying to identify digital and analog-based research and historical treasures before it’s too late.

“Nobody knows how much media is even out there,” she said. “We just want to find out what is here.”

To help campus units identify their important collections of audio, film, videos and still images, CME began a “population census” this semester.

“Everybody has stuff but a lot of stuff just stays in the closet and never sees the light of day,” said Annie Peterson, a student in the Graduate School of Library and Information Science.

The results of the census will be used to help develop a long-term media strategy for the Urbana campus.

“We’re asking people, ‘How much do you have and what is it?’” Cook said.

Just finding the proper recording format for materials can be tricky, Cook said, and there are fears that information collected and stored on many of the older formats already has been lost.

“In many cases, we’re not just talking about a box of information – we’re talking about a whole room or a whole floor,” she said. “What we’re trying to find out with the survey is, ‘Who is in charge of it?’”

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ON THE WEB
Preservation Working Group
http://will.illinois.edu/pwg

PWG’s self-assessment program
www.library.illinois.edu/prescons/av SAP/
A Minute With ...™ nuclear engineer James Stubbins

What is a reactor meltdown?

A meltdown occurs when the nuclear fuel inside the reactor pressure vessel becomes so hot that it melts. This situation would occur if the nuclear fuel does not have sufficient cooling water circulating around it to remove the excess heat. In the situation in Japan, it appears that the water levels inside some of the reactors have dropped below the top of the fuel elements. This could cause the upper ends of the fuel rods to melt. It also has the consequence that the steam surrounding the top end of the fuel would react with the zirconium fuel cladding. The oxygen in the water would react to release hydrogen gas. When the operators release the pressure inside the reactor pressure vessel, some hydrogen gas is also released into an outer containment building. This seems to be the source of the hydrogen that has caused the explosions in the secondary containment in two of the Fukushima Dai-ichi reactors.

Given the frequency with which Japan is rocked by earthquakes, how could so many plants have been damaged?

It is still not clear how many of the 55 nuclear reactors in Japan have been damaged. Evidently 11 of their reactors have been shut down. Most of the attention is directed toward the reactors at the Fukushima Dai-ichi site where there are six boiling water reactors (BWR). Reports have concentrated on the oldest three units, Units 1, 2 and 3, which all started operation in the 1970s. In these systems, the reactor shut-down procedures seemed to have been performed as planned. The core is over providing sufficient cooling to remove the excess heat following shut down. In general, reactor systems are designed to withstand earthquakes. However, with an earthquake of the magnitude experienced in Japan, I am certain that there will be in-depth examinations of all of the affected reactors to ensure their continued safe operation.

Does the U.S. have any plants in harm’s way, so to speak?

The reactors in the news are the BWRs. In the U.S. fleet of 104 operating reactors, about one-third of the reactors are the BWR design. It appears from the news from Japan that the reactor shut-down process performed as it should. The problems have arisen since, following shutdown, when the electricity source to supply the emergency cooling systems has not worked. This resulted in the use of other pumping systems to pump seawater into some of the systems. It is very unlikely that a similar scenario could occur in the U.S. with any of the operating U.S. plants. I would expect that there will be lessons from the situation in Japan that will lead to further enhancing the multiple safety systems which protect the reactors and the public during emergency situations.

Are you concerned what’s happening in Japan will set back the future for nuclear power?

I am certain that the response to the emergency situation at the reactors in Japan will be studied in detail to learn how to prevent or mitigate possible future emergency response scenarios. The international nuclear power industry has worked in a highly coordinated way to share best operating practices. Since many of the world’s reactors are closely related in design, either BWRs or pressurized water reactors, it is possible to share best practices. The systems of sharing information date back more than 30 years related in design, either BWRs or pressurized water reactors, it is possible to share best practices. The systems of sharing information date back more than 30 years and have led to enhanced safety and to enhanced operational efficiency over the years.

For the future, several of the newest reactor designs have an internal cooling system that does not rely on external pumping and cooling. The concept in these advanced designs is to reduce the dependence on external cooling sources that have been the main problem with the reactors in Japan.

Editor’s note: The unprecedented earthquake and tsunami in Japan March 10 have left thousands dead, destroyed villages and damaged many of the nation’s nuclear reactors. James F. Stubbins, professor and head of the department of nuclear, plasma and radiological engineering at the UI, discusses what is a very fluid situation. He was interviewed by Jeff Unger, the director of the UI News Bureau.

March 17, 2011

InsideIllinois
Real March Madness: using seedings to determine Final Four

By Liz Ahlberg
Physical Sciences Editor

Think picking all the top-seeded teams as the Final Four in your March Madness bracket is your best bet for winning the office pool? Think again.

According to an operations research analysis model developed by Sheldon Jacobson, a professor of computer science and the director of the Simulation and Optimization Laboratory at the UI, you'd better off picking a combination of two top-seeded teams, a No. 2 seed and a No. 3 seed.

“There are patterns that exist in the seeds,” Jacobson says. “As much as we like to believe otherwise, the fact of the matter is that we’ve uncovered a model that captures this pattern. As a result of that, in spite of what we emotionally feel about teams or who’s going to win, the reality is that the numbers trump all of these things,” Jacobson said. “It’s more likely to be 1, 1, 2, 3 in the Final Four than four No. 1’s.”

Jacobson’s model is unique in that it prognosticates not based on who the teams are, but on the seeds they hold. He describes his model in a forthcoming paper in the journal Omega with co-authors Alex Nikolic and Ereko Lauchuye, of the University of Buffalo; Adran Lee, of CITERI (Central Illinois Technology and Education Research Institute); and Douglas King, a graduate student at Illinois.

Jacking up the seed database into a user-friendly website to help March Madness fans determine the relative probability of their chosen team combinations taking home the championship, Jacobson’s model enables us to look statistically, there’s a certain number of patterns, independent of the team. They then fit the pattern to a stochastic model they can use to assess probabilities and odds.

Two computer science undergraduates, Ammar Rizwan and Emon Dai, built the website bracketodds.cs.illinois.edu based on Jacobson’s model. The website will be up through the entire tournament. Users can evaluate their brackets and also compare relative likelihood of two sets of seed combinations.

“For each of the rounds that we have available, you could put in what you have so far and then compare it to other possible sets,” Rizwan said.

For example, the probability of the Final Four comprising the four top-seeded teams is 0.026, or once every 39 years. Meanwhile, the probability of a Final Four of all No. 16 seeds – the lowest-seeded teams in the tournament – is so outlandish it’s fitting the test statistic of happening once every eight hundred trillion years. (The Milky Way contains about 100 billion stars.)

“Basically, if every star was given a year, the years it would take for this to occur is 8,000 times all the stars in the galaxy,” Jacobson said. “It gives you perspective.”

However, sets with long odds do happen. The most unlikely combination in the 26 years studied occurred in 2000, with a Final Four seed combination of 1, 5, 8 and 9. But such a bracket is only predicted to happen once every 32,000 years, so those filling out brackets at home shouldn’t hope for a repeat.

“Amateur bracketologists can be confident of is upsets. For even the most probable Final Four combination of 1, 1, 2, 3 to occur, two top-seeded schools have to lose,” Jacobson said. “There are patterns that exist in the seeds to uncover trends in ‘bracketology.’”

“In fact, upsets occur with great frequency and great predictability. If you look statistically, there’s a certain number of upsets that occur in each round. We just don’t know which team they’re going to be or when they’re going to occur,” Jacobson said.

After the 2011 tournament, and in years to come, Jacobson will integrate the new data into the model to continually refine its prediction power. For 2012, Jacobson, Rizwan and Dai hope to integrate a comparative probability feature into the website to allow users to calculate, for example, the probability of a particular set of Final Four seeds if the Elite Eight seeds are given.

Until then, users can find out how likely their picks really are, and compare them against friends’ picks – or even sports commentators’.

“We’re not here specifically to say ‘Syracuse is going to beat Kentucky in the Elite Eight.’ What we’re saying is that the seed numbers have patterns,” Jacobson said. “A 1, 1, 2, 3 is the most likely Final Four. I don’t know which two 1’s, I don’t know which No. 2 and I don’t know which No. 3. But I can tell you that if you want to go purely with the odds, choose a Final Four with seeds 1, 1, 2, 3.”

**Statistically speaking** Undergraduates Ammar Rizwan, left, and Emon Dai, both in computer science, created a website based on Sheldon Jacobson’s statistical model for predicting the last four teams in the NCAA men’s basketball tournament.

Robert H. Buenteing, 82, died March 14 at Carle Foundation Hospital, Urbana. Buenteing was a carpenter for 26 years in the Division of Operations and Maintenance (now Facilities and Services). Memorials: St. Paul’s Lutheran Church, 108 E. Church St., Gifford, IL 61847, or the Gifford Community Center.

Charles A. Carrington, 91, died March 3 at Heartland Health Care Center, Paxton. Carrington was a photographer for UI Photography Services for 41 years, retiring in 1988.

Bel-Tse Chao, 92, died March 2 at Meadowbrook Health Center, Urbana. Chao was a professor emeritus of mechanical engineering. He was a faculty member at the UI for 40 years, serving as head of the department from 1975 until his retirement in 1987.

Dorothy Chilton, 78, died Feb. 28. She worked at the UI for 28 years as an extra help data entry operator. Memorials: Ogden Christian Church, 105 W. Main St., Ogden, IL 61859; St. Jude’s Children’s Research Hospital, 501 S. St. Jude Place, Memphis, TN 38105; or Hope United Church of Christ, 23334 Illinois 49, Armstrong, IL 61812.

Eva Wirth Gray, 81, died March 5. Gray was a professor emeritus of mathematics. She retired in 1995 after 37 years at the university.

Carolyn Ann Kunde, 73, died March 11 at her home in Mahomet. Kunde retired from the Office of the Chancellor in 1998 as a typing clerk III. She worked at the UI for 12 years. Memorials: Carle Hospice, 206A W. Anthony Drive, Champaign, IL 61822, and the American Cancer Society, 2509 S. Neil St., Champaign, IL 61820.

Ray G. Langebartel, 89, died Feb. 25 at Carle Foundation Hospital, Urbana. He was a professor emeritus of mathematics, retiring in 1991 after 40 years at the UI. Memorials: Alzheimer’s Association, Greater Illinois Chapter, 8430 W. Bryn Mawr, Suite 800, Chicago, IL 60631; American Cancer Society, 2509 S. Neil St., Champaign, IL 61820.

Jing Liao, 56, died Feb. 28 in Urbana. She had been at the UI since 2001. She was a professor and librarian at the Ricker Library of Architecture and Art: Memorials: the Jing Liao Fund to be established for the Chinese-American Librarians Association.

Ruby B. Waldron, 89, died March 6. She was a food production manager at the UI from 1959 to 1989 for Housing.

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ON THE WEB http://bracketodds.cs.illinois.edu
Tree stumps tell the story of fire in the upper Midwest

By Diana Yates
Life Sciences Editor

Researchers have constructed a 226-year history of fire in Southern Illinois by looking at the fire scars in tree stumps. Their study, the most in-depth fire history reported for the upper Midwest, reveals that changes in the frequency of fires dating back to the time of early European settlement permanently altered the ecology of the region.

The researchers took advantage of a 1996 timber harvest of old growth post oak trees in Hamilton County.

“I was just amazed at the fire scars in these trees,” said William McClain, a botanist with the Illinois State Museum who led the study with researchers John Ebinger and Greg Spyreas, of the Illinois Natural History Survey at the UI. “I knew that the information that was in these tree trunks was really, really valuable.”

McClain counted growth rings, fire scars and other distinguishing features of 36 of the old-growth post oak trees that had been cut. Luckily for the researchers, the fire-damaged trees had repeatedly healed, retaining their heartwood despite having been badly injured by numerous intense fires.

McClain is an expert in the fire history of Illinois and surrounding states, having collected and published accounts of fires from numerous historical records. “These are written accounts of observed fires that record the date and location of each fire,” he said. “And there are a significant number of Indian-started fires.”

The new study, in the journal Castanea, confirms that the people who lived in Illinois before European settlers arrived were in the habit of setting fires in the region nearly every year, with fires in the Hamilton County woodland occurring at least every two or three years, McClain said. This repeated burning actually stabilized the prairies and open woodlands that dominated the region until the late 19th century, when the fire-suppression efforts of the new settlers allowed different plant species to take over, the researchers said.

The researchers found evidence of more than 100 fires in Hamilton County between the 1770s and 1996, when the trees were cut down. Prior to 1850, the woodlands burned roughly every two years. A “fire-free” interval followed between 1850 and 1885, as settlers rapidly colonized the area and suppressed fires. Then in 1885, the fire scars appear again, probably as a result of the localized burning of woodlots, which was a tradition in the region until the late 1890s and early 1900s, the researchers said.

“These smaller, less intense fires were probably started to enhance forage quality for livestock, improve visibility for hunting and to reduce the amount of flammable material in the underbrush,” Spyreas said. But by that time the previously “open woodlands,” with limited shade and even a few prairie plants growing in the understory, had become a dense forest with lots of shade. The shade-intolerant post oaks could not compete with fast-growing, shade-loving species, which until 1850 had been kept in check by the frequent fires.

After the brief period of fire suppression, only established post oaks could survive as other tree species closed in around them; the shade was already too dense for post oak seedlings to survive.

“We used to call these open woodlands ‘barrens,’ ” Ebinger said. “And they were maintained by fires coming through, maybe not every year but at least every third year. Then, 30 years after the fires stopped, the barrens didn’t exist anymore.”

“For hundreds, maybe thousands of years, this was a stable post oak woodland,” Spyreas said. “And then you have a gap of a couple of decades where there were no fires and suddenly the whole system is completely different. It’s amazing how, from Kansas to Ohio, these ecosystems completely depend on fire to be stable.”

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Rings of fire

The researchers reconstructed the fire history of Hamilton County by examining the fire scars and the growth rings of 36 old-growth trees.
Social network at work influences employee learning

By Phil Clipora
Business & Law Editor

Workplace management innovations diffuse gradually through employee social networks, since their usefulness is not immediately apparent to some would-be early adopters, according to published research by a UI expert on performance measurement and compensation systems.

Jasmijn Bol, a professor of accountancy at Maastricht University School of Business and Economics, and highlights performance-based incentives by a large European cooperative bank, and analyzes the adoption and diffusion of new management tools, according to published research by a UI expert on performance measurement and compensation systems.

Jasmijn Bol, a professor of accountancy at Maastricht University School of Business and Economics, and highlights performance-based incentives by a large European cooperative bank, and analyzes the adoption and diffusion of management innovation by different local banks.

“Through its organizational structure, a firm influences the degree to which managers or organizational units interact with each other,” Bol said. “In our study, the cooperative nature and the continuing interactions between local banks tended to facilitate learning through more and easier access to the experience of early adopters.”

According to the research, increased social interaction improved the learning process for managers, which eventually led to a speeding up the diffusion and adoption process of the management innovation by different local banks.

“By taking an active role in information sharing, and by adjusting the innovation to local banks’ preferences, the organization ensured that early adopters efficiently shared their learning experiences,” Bol said.

According to Bol, managers have to be willing to share information among coworkers, and not feel threatened or in competition with their peers.

“That’s another key aspect of cooperative organizational structure – that local banks aren’t competing with each other,” she said. “If you’re in a very hierarchical company, one without a lot of interactions between divisions, we wouldn’t see a lot of learning going on. But if you have access to a lot of managers who have implemented the system, who know a lot about it, then it’s easier to get that information and it’s easier to reduce uncertainty.”

Bol says that extensive learning-by-doing and strong subsequent on-the-job learning spillovers led to a relatively rapid diffusion of the management innovation.

In the study, almost all local banks had adopted the system within three years.

“Three years is really quite fast for a management innovation, so in a situation where learning wasn’t facilitated as much on the job, you could expect the diffusion process to take longer,” she said.

Bol cautions that the research has its limitations.

“The most obvious one is that this research focuses on a single firm, which might affect how much we can generalize the results,” she said. “We can’t examine all of the companies in the world, but there’s no reason to think that the findings would not generalize to companies with similar organizational structures. The theory applies to any management innovation.”

Bol’s co-author is Frank Moers, of the Maastricht University School of Business and Economics, and highlights performance-based incentives by a large European cooperative bank, and analyzes the adoption and diffusion of management innovation by different local banks.

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BATTERY LIFE, CONTINUED FROM PAGE 1

By Liz Ahlberg
Physical Sciences Editor

Illinois researchers have combined two molecular imaging technologies to create an instrument with incredible sensitivity that provides new, detailed insight into dynamic molecular processes.

Physics professors Taekjip Ha and Yann Chemla combined their expertise in single-molecule biophysics – fluorescence microscopy and optical traps, respectively – to study binding and unbinding of individual DNA segments to a larger strand. They and their joint postdoctoral researcher Matthew Comstock detail their technique in a paper published in the Feb. 20 online edition of Nature Methods.

Both professors have particularly studied proteins and enzymes that regulate DNA, such as the enzyme helicase that unwinds DNA for duplication or transcription to RNA. Fluorescent microscopy techniques allow researchers to observe proteins as they conform and move, but often lack the spatial range to track the protein’s motion over distance.

Optical traps, meanwhile, enable researchers to study a protein’s translocation, but not its conformation. Chemla compares traditional optical traps to fishing. A single molecule of DNA is tethered between two attachment points, and the activity of a protein bound to it is only inferred from how it tugs on the tether, much like a fish at the end of a line. This can reveal a lot about a protein’s activity and motion, but the technique has glaring limitations as well. For example, it is difficult to know how many proteins or the types of proteins that are involved.

“Also, these proteins may do all sorts of things beyond tugging on our line that we may not be sensitive to,” Chemla said. “Fluorescence allows you to have an additional readout to actually see these things, and the key is that we can now measure them simultaneously. This work was a real synthesis of the expertise of two groups at the Center for the Physics of Living Cells at the UI.

The combination allows Chemla, Ha and their group to measure both a protein’s motion – sensitive to translocation as small as one DNA base pair, a distance of only a few angstroms – and also conformational changes as it acts. This can reveal details about its mechanism that would not have been accessible before.

“It was a major technical challenge, but the final product is a one-of-a-kind instrument with unique capabilities,” Chemla said.

The team is continuing to work to reduce power consumption and increase energy efficiency even beyond the groundbreaking savings they’ve already demonstrated.

“Even though we’ve taken one technology and shown that it can be improved by a factor of 100, we have not yet reached what is physically possible,” Pop said. “We have not even tested the limits yet. I think we could lower power by at least another factor of 10,” Pop said.

The work was supported in part by the Marco Focus Center Research Program, a Semiconductor Research Corporation entity, and by the Office of National Institute of Health, National Institutes of Health and the Howard Hughes Medical Institute supported this work. ◆

New technique reveals more about DNA proteins

New Insight Illinois researchers developed a new technique that combines optical traps (red) with fluorescence (green) to study the proteins that regulate DNA.

“It’s like taking a rudimentary, real-time ‘movie’ of what individual molecules are doing.”

The National Science Foundation, National Institutes of Health and the Howard Hughes Medical Institute supported this work. ◆

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LITERACY. CONTINUED FROM PAGE 8
incorporate formative and summative assessment," the team wrote. "Indeed there is enormous potential to develop new modes of assessment in which student activity is continuously assessed without disrupting time spent for learning in the classroom." In reviewing the various computer-based writing assessment programs now available, the team found that they tend to reinforce conformity to standardized writing practices, marginalizing personal creativity and the social aspects of writing.

"We learned a lot by looking at some of the software, especially that which uses natural language processing to assess a text," said team member Colleen Vojak, who is the program coordinator and an adjunct professor in education. "These programs purport to actually analyze ideas and the way an essay is constructed, but we haven't been very impressed with what's out there right now."

The programs' grading criteria can be dubious as well, the team concluded, after one program gave failing marks to the Gettysburg Address, denouncing it as "too wordy" and repetitious.

The u-author learning environment will capitalize on social connectivity, providing seven writing assessment tools and an array of computer-generated and user-generated feedback based on assessment rubrics that teachers design for it, Cope said.

"We're trying to build in as many different evaluative perspectives around the work that the students are doing as possible," Cope said. "And each of those is not just an evaluative perspective, it's a different technology."

Students at three area schools are testing the software and providing feedback as it's built. The team has completed about three tools and by this summer hopes to have them embedded in a social networking environment that will allow students to create their profile pages and post their compositions for feedback or private use, Vojak said. Other university-based team members working on the project: Hua-Hua Chang, an education professor and psychometric expert; Jennifer Greene and Joe Robinson, education professor and psychometric expert; and Duane Searsmith, a senior software developer.

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Study: Happiness improves health and lengthens life

By Diana Yates
Life Sciences Editor

A review of more than 160 studies of human and animal subjects has found “clear and compelling evidence” that— all else being equal— happy people tend to live longer and experience better health than their unhappy peers.

The study, in the journal Applied Psychology: Health and Well-Being, is the most comprehensive review so far of the evidence linking happiness to health outcomes. Its lead author, U1 professor emeritus of psychology Ed Diener, who also is a senior scientist for the Gallup Organization, of Princeton, N.J., analyzed long-term studies of human subjects, experimental human and animal trials, and studies that evaluate the health status of people stressed by natural events.

“We reviewed eight different types of studies,” Diener said. “And the general conclusion from each type of study is that your subjective well-being — that is, feeling positive about your life, not stressed out, not depressed — contributes to both longevity and better health among healthy populations.” A study that followed nearly 5,000 university students for more than 40 years, for example, found that those who were most pessimistic as students tended to die younger than their peers. An even longer-term study that followed 180 Catholic nuns from early adulthood to old age found that those who wrote positive autobiographies in their early 20s tended to outlive those who wrote more negative accounts of their young lives.

There were a few exceptions, but most of the long-term studies the researchers reviewed found that anxiety, depression, a lack of enjoyment of daily activities and pessimism all are associated with higher rates of disease and a shorter lifespan.

Animal studies also demonstrate a strong link between stress and poor health. Experiments in which animals receive the same care but differ in their stress levels (as a result of an abundance of nest mates in their cages, for example) have found that stressed animals are more susceptible to heart disease, have weaker immune systems and tend to die younger than those living in less crowded conditions.

Laboratory experiments on humans have found that positive moods reduce stress-related hormones, increase immune function and promote the speedy recovery of the heart after attack. In other studies, marital conflicts and high hostility in married couples were associated with slow wound healing and a poorer immune response.

“Although there are a handful of studies that find opposite effects,” Diener said, “the overwhelming majority of studies support the conclusion that happiness is associated with health and longevity. Current health recommendations focus on four things: avoid obesity, eat right, don’t smoke, and exercise. It may be time to add ‘be happy and avoid chronic anger and depression’ to the list.”

Users hone their critical thinking skills by participating as authors, collaborators and reviewers. They also can respond to and rate the feedback they receive from their peers. The student compositions and author-approved feedback will be archived so that students can see how well their work compares to others’ writing on similar topics.

Instructors will be able to create computer-administered quizzes and surveys to check students’ content knowledge and gather data on aspects of learning such as attitudes, perceptions and metacognition. The system will assess students’ scores and data on long-range learning trends to provide a complex assessment of learning progress for individual students and the class as a whole.

While happiness might not by itself prevent or cure disease, the evidence that positive emotions and enjoyment of life contribute to better health and a longer lifespan is stronger than the data linking obesity to reduced longevity, Diener said.

“Happiness is no magic bullet,” he said. “But the evidence is clear and compelling that it changes your odds of getting disease or dying young.

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Study: Wisconsin teacher salaries lag private sector wages

By Phil Ciciora
Business & Law Editor

A study released this month shows Wisconsin teacher salaries are the lowest in the United States compared to their private sector counterparts.

According to Craig A. Olson, a professor of labor and employment relations and labor economics, the average college-educated private sector worker in the U.S. earned 17 percent more than a Wisconsin teacher; in 2009, this gap had increased to 36 percent, according to Olson’s research.

Olson’s research also discovered that while the salaries of public sector workers have not risen dramatically, expenditures on their benefits, especially health insurance benefits, have increased. In Illinois, the average inflation-adjusted premium for a family health insurance policy for Illinois teachers increased from $5,758 to $10,905 from 1993 to 2008.

Not surprisingly, health insurance premiums for the private sector also have risen sharply during that time, increasing from $5,742 in 1999 to $13,770 in 2010, adjusted to 2009 prices.

Faced with rising health insurance costs, Wisconsin Gov. Scott Walker has argued that Wisconsin public employees should be required to pay higher premium co-payments to match the higher co-payments paid by employees in the private sector.

“Obviously, Gov. Walker’s argument misses a key point about how health insurance premiums influence other employment outcomes such as wages,” said Olson, who also is a professor of economics at Illinois.

An analysis of Illinois teacher wages and health insurance premiums from 1993 to 2008 that Olson is working on with Darren Lubonsky, a professor of economics and of labor and employment relations at Illinois, shows that in districts or time periods when premiums went up the most, teachers, through their local unions, typically accepted lower salary increases agreed to higher teacher premium co-payments when compared to districts that faced smaller increases in health insurance premiums.

Olson applies these results to Wisconsin to suggest that through the collective bargaining process, Wisconsin teachers protected their health benefits when premiums were rising rapidly by accepting lower wage increases. According to Olson, the budget bill in Wisconsin will likely have unintended consequences that have not been considered in the rush to pass the bill.

“My rough calculations of the changes in employee pension and health benefit contributions required under the proposal suggest the changes will cost the average Wisconsin teacher about $5,000 in total compensation,” he said. “This reduction in total compensation is equal to about 10 percent of the salary for an average Wisconsin teacher. Since salary increases under the bill are limited without a voter referendum to changes in the cost of living, teachers will have great difficulty negotiating higher pay to offset these higher contributions.”

While these changes will save Wisconsin school districts some money in the short term, Olson says it’s likely to have a serious adverse impact on the quality of the state’s teacher workforce.

“Obviously, it will make it more difficult for Wisconsin to attract high quality young adults into teaching,” he said. “What parent in Wisconsin would encourage their child to become a teacher given the trends of the last 16 years and Gov. Walker’s proposal?”

Craig A. Olson

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A few years ago, Robert Dale Parker was in a basement library reading microfilm he had ordered from the Library of Congress where he found a trove of poems written by an Ojibwe Indian. The fact that the poems were literate and lyrical pleased Parker, a literary critic, but the fact that they were from 1815 made him ecstatic.

"I was shaking and tingling, and I wanted to scream out to all these people around me: ‘Look at this! This is major! This is really something!’" Parker recalls. "I knew that I had found something special, and as time went on, I found much more."

Parker, an English professor at the University of Illinois, had been working on Native American poetry for several years before finding these poems. He received a grant to develop a course in American Indian literature, and he was already a scholar of American literature and American studies when he decided to write a book about American Indian poetry.

"I was confident that it had a long history, and I thought that I could show that by bringing this history to the attention of the relatively high literacy that poetry entails to a public audience. This book goes exactly counter to all the clichés about Indian people."

Through years of research, Parker identified nearly 150 Indian poets whose work predated 1930. He included 82 of those poems in his book, and about half of their poems, choosing, he said, only poems that he thought people would like to read.

He found about half of these poems through the work of Daniel F. Littlefield and James Parins, two University of Arkansas professors who produced a bibliography of all the Indian writing they could find. Parker found many others by scanning microfilm reels of old newspapers, looking for blocks of type set in a way that looked like a poem.

Most of those blocks of type turned out to be advertisements. Of the ones that were poems, most were written by Anglos. And among the poetry supposedly written by Indians, Parker determined that a few were written by "fake Indians" – white writers who pretended to be Indian, sometimes to make fun of them. Parker’s book includes an appendix of "notable false attributions."

He did virtually all of this tedious work himself, because he couldn’t imagine finding the poems any other way. “Even if it were more efficient to have students do it, which I don’t think it would’ve been, I would miss the fun,” Parker said. “And why would you do it if you don’t love doing it?”

Parker found many of the poems to be interesting characters: John Rollin Ridge (Yellow Bird), John Esten Crowe (Little Turtle), among the smart, literate people around us every day. “Indians are everywhere.”

"How to Interpret American Literature" (Pennsylvania Press, 2007)
"Schoolcraft" (University of Michigan Press, 2008)
"The Sound the Stars Make Rushing Through the Sky: The Writings of Jane Johnston Schoolcraft" (University of Pennsylvania Press, 2007)
"The Invention of Native American Literature" (Cornell University Press, 2003)

American Indian poetry

American Indian poetry


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brief notes

Figure One

Stock photography art on display

Stock photographer Ben Aqua and School of Art and Design students will be displayed through April 1 at Figure One, 116 N. Walnut St., in downtown Champaign.

Aqua, the inaugural artist-in-residence at Figure One, is coaching photography students at the UI in the art of stock photography. Resident artists are asked to give a public lecture, run a workshop with students and produce new work within the gallery.

Since February, Aqua has been working with the students at locations around Champaign and Urbana on an assignment to shoot portraits. Jimmy Lau, a professor of graphic design who is 1997 Luminator of Figure One, says the students are assigned a different theme each week – aging, or beauty or people being active, for example. Each photograph chosen by Aqua is woven into the designs edit the photographs. Aqua is encouraging them to think beyond conventional catalog-style images, to explore what he sees as new trends in stock photography.

The exhibition space is open Tuesdays, Wednesdays and Saturdays from 11 a.m. to 4 p.m., and 6 to 9 p.m. Fridays. For more information, go to www.seefigureone.org.

Industrial and Enterprise Systems Engineering

Operations research discussed March 31

Ralph Tyrell Rockafellar, a professor emeritus of mathematics at the University of Washington and an adjunct research professor at the University of Florida, will speak on “Optimization and Statistics” as part of the Illinois Distinguished Lecture Series in Operations Research, hosted by the department of industrial and enterprise systems engineering.

The presentation will be from 4-5 p.m. March 31 in room 314 of the NCSA auditorium with a reception following in the atrium.

Rockafellar, a winner of the Dantzig Prize, given jointly by the Society for Industrial and Applied Mathematics and the Mathematical Programming Society, has gained international recognition for his work. The Institute for Operations Research and Management Sciences awarded him annual Fellows Prize for 1997 for his work on the so-called “Variational Analysis,” and in 1999 he was further honored by the institute with the John von Neumann Theory Prize for his fundamental contributions to the methodology of optimization. His interests span convex and variational analysis to problems of optimization and equilibrium.

Kra�ert Art Museum Council

Petals & Paintings benefit is April 8

The UI Kra�ert Art Museum Council will host its 19th annual Petals & Paintings benefit April 8 in support of the museum’s upcoming exhibits and educational programming.

Champaign floral designer Rick Orr is guest curatorial of the exhibition.

The exhibition will feature floral arrangements created by regional floral designers in response to works of art selected by Orr from the museum’s permanent collection.

The gala is from 7 to 9 p.m. at Kra�ert Art Museum. Guests may preview the floral displays and meet the florists at 6:30 p.m. The evening will include music by the Darden Purcell Quartet and cocktails and hors d’oeuvres by Michael’s Catering. There will be a raffle for original art by Gordon Harshorne. (Harshorne’s art will be on display at the museum March 29–April 8 and featured at www.kum.illinois.edu.)

Tickets for the opening reception are $75 each. Reservations are due April 1. For more information about the event, reservations, or membership, call 217-244-6516.

Pacifica Quartet/WILL-FM (90.9)

Children’s musical presented April 1-2

University’s Grammy-award winning faculty quartet in residence will partner with WILL-FM (90.9) at noon on April 1 to present a live broadcast of a new musical for children, “Introducing Wolfgang Amadeus Schmutzinberry,” composed by music educator Rami Vamos.

The concert will take place at the Orpheum Children’s Science Museum, 346 N. Neil St. in downtown Champaign, will be broadcast on “Live and Local,” hosted by Kevin Kelly, who will narrate the musical.

The concert is the first performance of a weekend-long chamber music festival called DoCha (short for Downtown Chamber Arts). Champaign began last year by Pacifica violinist and UI professor Masumi Rostad. The musical will be performed again on April 2 at noon, this time narrated by New York-based film, television and stage actress Nuet Monacelli.

The festival will include evening performances at the Orpheum, as well as “pop-up” concerts in “surprise locations” that will be announced on Twitter and Facebook. To stay in tune for these events, follow #DoCha1 Festival.

All DoCha concerts are free and open to the public.

Drinks and gourmet snack plates from Jim Gould restaurant will be sold at evening performances; audience members also may bring their own alcohol-free “indoor picnics.”

Human Resources/ Benefits Services

Free retirement planning seminars

University Human Resources and Benefits Services are offering free retirement planning seminars for UI employees.

Representatives from Fidelity and TIAA-CREF, the vendors for the UI Supplemental 403(b) Retirement Plan, and representatives from the State Universities Retirement System will lead the seminar discussions.

Upcoming events:

· “Building a Portfolio for Any Weather” (Fidelity), Music Room, Levis Faculty Center – 1:30-2:30 p.m. April 4
· “Preparing Your Savings for Retirement” (Fidelity), Music Room, Levis Faculty Center – 3:30-4:30 p.m. April 4
· “Preparing for Retirement” (SURS), Room 66 Main Library – 3:30 p.m. April 8

For descriptions of these seminars and future seminar announcements, visit NESSIE at http://go.illinois.edu/retirement_seminars. Registration is required and can be completed online.

University Ethics Office: Economic interest forms due April 22

Forms should not be sent through campus mail. Employees with questions about the criteria for filing may call the Ethics Help Line at 866-758-2146 or visit the University Ethics Office website: www.ethics.uillinois.edu/ethics.

Questions about the Illinois Governmental Ethics Act should be directed to the Office of the Secretary of State at 217-782-7017.

ON THE WEB

www.ethics.uillinois.edu/statements/

These seminars are approved events under Civil Service Policy and Rules, Rule 11.12. Employees may be released from work to attend these events, university operations permitting, and subject to prior approval from their supervisor. Additionally, information about the university’s retirement and investment plans can be found on NESSIE’s website or by contacting the Benefits Services office at 217-333-3111.

University Primary School

Enroll for fall by March 18

University Primary School is now accepting enrollment applications for the 2011-2012 academic year.

The deadline is March 18. For more information, call 217-333-3996 or visit www.ed.illinois.edu/ups.

Printed copies of the application are available in Room 95 of the Children’s Research Center or the information may be downloaded from the UPS website.

The school is an early childhood program that serves preschool, kindergarten and first-grade students in a project-based curriculum. Children must be 3 years old on or before Sept. 1 for the preschool classroom and 5 years old before Sept. 1 to be considered for kindergarten enrollment.

Electronics and sustainability

Symposium to focus on electronic waste

People who get a new smart phone, tablet computer, e-book reader or MP3 player rarely focus on the outdated devices that will replace them. But those discarded products represent a significant waste of energy and materials, and, if improperly disposed of, serious environmental risks.

The second annual Electronics and Sustainability Symposium March 22-23 will address these challenges and others, along with possible solutions. John Pflueger, a new environmental strategist at Dell, will deliver the keynote address at a luncheon at 11:45 a.m. March 23 at the I-Hotel and Conference Center, 1900 S. First St., Champaign.

Other speakers include William Hoffman, environmental scientist with UL Environment, based in Northbrook, Ill; Andrew Steckel, Ohio Eminent Scholar in the University of Cincinnati’s College of Engineering and Applied Science, whose latest work could lead to the creation of a disposable paper e-reader; Charles Newman, founder of ReCellular, based in Ann Arbor, Mich., the world’s largest recycler and reseller of used mobile phones; Courtney Rushforth, of the city of Urbana; Jill Olson, the director of sustainability and stewardship at Motorola, producer of the first “green” android phones; Manish Mehta, of the Science, whose latest work could lead to the creation of a disposable paper e-reader; Charles Newman, founder of ReCellular, based in Northbrook, Ill., Andrew Steckel, Ohio Eminent Scholar in the University of Cincinnati’s College of Engineering and Applied Science, whose latest work could lead to the creation of a disposable paper e-reader; Charles Newman, founder of ReCellular, based in Ann Arbor, Mich., the world’s largest recycler and reseller of used mobile phones; Courtney Rushforth, of the city of Urbana; Jill Olson, the director of sustainability and stewardship at Motorola, producer of the first “green” android phones; Ad removed for online version
Ebertfest to feature romance, murder, award-winning guests

By Craig Chamberlain

Restored silent classic will open the 13th annual Roger Ebert’s Film Festival or “Ebertfest,” coming April 27 to May 1 to Champaign-Urbana. A documentary about Chicago’s youth poetry slam will close it. And hopefully creating new and interesting conversations between the works," she said.

For more information about the artists, visit artsptlsosia.com, which includes links to several artists’ websites.

A closing reception will be from 6 to 10 p.m. April 1.

International business

Summit promotes collaborative research

A new collaborative center aiming to provide research leadership in the study of complex international competitiveness is hosting a summit to promote large-scale, team-based interdisciplinary research generating breakthrough knowledge for major advancement, particularly on topics that have public policy implications.

The Center for Advanced Study in International Competitiveness, with support from the Committee on Institutional Cooperation, is hosting “Competing in the New Innovation-Driven Global Economy.” It will take place April 1-2 in Chicago. The latest findings on the international competitiveness of firms and nations by leading researchers from academia, industry and government will be presented.

Conference registration (www.cic.net/casicsummit) is open until March 25.

Joseph Cheng, a professor of international business and the director of the Illinois Global Business Initiative at the University of Illinois, will be the keynote speaker at the 2011 UI Nutrition symposium. Wansink to talk about eating better April 6

The Center for Advanced Study in International Competitiveness (CASIC)’s director, Joseph Cheng, and executive director, Alex Karposky are invited to attend, and many appear on stage for informal Q-and-A sessions after the screenings.

Ebert’s wife, Chaz, will again act as the emcee. Ebert, unable to speak as a result of throat cancer and related surgery over recent years, says he once again plans to play the stage for informal Q-and-A sessions after the screenings.

Tickets for individual films will go on sale April 4 through the theater box office: phone 217-356-9063 or fax 217-356-5729. The price will be $13 each for regular admission and $11 each for students and senior citizens. Sales will be limited to four per person.

Events (to be announced later) at the UI. The Opening night, "Metropolis," was screened before at the festival in 2002, but thanks to a print of the film discovered in 2008, about 30 minutes of material has been added and the entire film has been restored.

Now, according to Ebert in a 2010 review, “it stands before us as more or less the film that Fritz Lang originally made in 1927.”

The 12 screenings will take place at the 1,500-seat Virginia Theater, with other events (to be announced later) at the UI. The festival is an event of the College of Media. Partial support is provided by the Academy of Motion Picture Arts and Sciences and the Champaign County Anti-Stigma Alliance.

Ebert is a Pulitzer Prize-winning critic for the Chicago Sun-Times. He returned to television this year with “Ebert Presents at the Movies.” Ebert also is a 1964 Illinois journalism graduate and adjunct journalism professor.

Ebert selects films for the festival that he feels have been overlooked in some way, either by critics, distributors or audiences, or because they come from overlooked genres or formats, such as documentaries.

Guests connected with the selected films are invited to attend, and many appear on stage for informal Q-and-A sessions after the screenings.

For a full schedule: www.sustainableillinois.edu/sustainability/events/2011/schedule.cfm.

In between will be fools in love, as car-nominated director Norman Jewison of kindness with big results.

Family strife, the other about a “small act” stories from Africa, one about AIDS and family strife, the other about a “small act” of kindness with big results.

Among the guests on hand will be Oscar-winning actress Tilda Swinton, Oscar-nominated director Norman Jewison (“Moonstruck,” “In the Heat of the Night”), and director/actor Tim Blake Nelson, perhaps best known for his role in “O Brother, Where Art Thou?”

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Better,” will be from 4 to 5 p.m. April 6 in Room 103 of Mumford Hall. Wansink will explore the numerous causes of overeating.

In addition to directing the Cornell Food and Brand Lab, Wansink has written more than 100 academic articles and books including “Mindless Eating: Why We Eat More Than We Think.” In 2007, he received a two-year presidential appointment as the executive director of the U.S. Department of Agriculture’s Center for Nutrition Policy and Promotion. In addition to Wansink’s lecture, a mini-symposium of UI faculty researchers will take place from 9 to 11 a.m.


From 12:45 to 3:30 p.m., oral presentations by graduate students will highlight Division of Nutritional Sciences research, including bioactive plant components, cancer, gastrointestinal physiology, immunology, metabolic regulation, physical activity and public health. A poster session and hors d’oeuvres will take place from 5:15 to 6:30 p.m. followed by award presentations.

The Nutrition Symposium is sponsored by Abbott Nutrition, ADM Cares Foundation, Coca Cola, the Kellogg Co., Kraft Foods, Mead Johnson Nutrition, PepsiCo, Wrigley and Zinpro. Symposium supporters include the General Mills Bell Institute of Health and Nutrition, and the UI departments of animal sciences, food science and human nutrition, and kinesiology and community health. For more information, contact the Division of Nutritional Sciences at 217-333-4177 or nutrsci@illinois.edu.

Community Cinema

Film features Congolese refugees

When civil war came to Rose’s Congolese village, she was separated from her 5-year-old daughter, Nangabire. Rose managed to escape with nine of her 10 children and eventually settled in Phoenix. The documentary “Pushing the Elephant,” the third in Illinois Public Media’s Community Cinema series, shows mother and daughter reuniting in the U.S. where they must come to terms with the past and build a new future.

A screening and discussion of issues in the film will take place at 6:30 p.m. March 17, in Robeson Rooms A and B of the Champaign Public Library, 200 W. Green St. It is free and open to the public.

Every month through June, Illinois Public Media will join with the Independent Television Service to sponsor screenings of independent documentaries, followed by discussions coordinated by community groups with an interest in the topic.

All of the Community Cinema films will be shown with closed captions and a sign language interpreter.

“Pushing the Elephant” will be broadcast on WILL-TV at 9 p.m. March 29 on “Independent Lens.”

UI High

Gargoyle Gala to raise funds April 2

University Laboratory High School will host the Gargoyle Gala on April 2 at Kemery Gymnasium in an effort to raise funds for additional pay for faculty and staff members.

The event is open to community members, alumni and parents. Four hundred tickets in several price levels are available.

Attendees are invited to browse and bid on auction items – including a lunch and tour of Google headquarters in California – while snacking on catered hors d’oeuvres. The auction will include items in a variety of price ranges.

For more information on auction items and the event, visit www.umigala.org.

achievements

A report on honors, awards, appointments and other outstanding achievements of faculty and staff members

Hua Chang, a professor of educational psychology, is being honored by the American Educational Research Association. The award, Significant Contribution to Educational Measurement and Research Methodology, recognizes an article he co-wrote on nonlinear sequential designs for logistic item response theory models with applications to computerized adaptive testing, published in the Annals of Statistics in 2009.

The award is given for a published article that represents a significant advancement in the theory and practice of educational measurement and/or educational research and is likely to make a major impact on the field.

FAA

A CD of music for violin and piano by H.W. Ernst featuring Sherban Lupu, a UI violin professor, and Ian Hobson, a Swanlund Professor of Music, was selected as the Editor’s Choice in the April issue of Gramophone magazine. The project was made possible by the Creative Research Award.

Ernst has been described as one of the best and most overlooked violin virtuosos. Gramophone magazine said of the recording, “Lupu, deftly and flamboyantly accompanied by Ian Hobson, astonishes and bewitches in equal measure.”

LAS

“Generosity,” a book by English professor Richard Powers (Atlantic Books), is included on a shortlist for the 2011 Arthur C. Clarke Award. The list was described by one of the judges as “one of the most interesting... in the last 25 years.” The prize aims to reward the best science fiction published in the United Kingdom.

Powers, a previous winner of a National Book Award, has often written about science. “Generosity” explores the biochemistry of happiness.

For the complete shortlist, go to http://go.illinois.edu/clarkeaward_shortlist. This year’s award will be announced April 27.
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