President Proposes Science Increases in FY12 as Congress Proposes FY11 Cuts

By Peter Harsha

President Barack Obama released his Administration’s fiscal year 2012 budget request in mid-February, stressing the need to increase funding for federal science agencies as a way of ensuring the U.S. can “out-innovate, out-educate, and out-build” the rest of the world. The President’s budget continues his commitment to double the funding for the National Science Foundation, the Department of Energy’s Office of Science, and the National Institute of Standards and Technology.

The same week, House Republicans brought to the floor their proposal for dealing with the unfinished FY11 budget, a stop-gap spending bill that would cut budgets at those same science agencies from 5 to 18 percent compared to FY10.

The two approaches highlight two dramatically different philosophies about addressing America’s economic and federal debt crisis, and make clear the challenge facing the science advocacy community this year. The President’s approach acknowledges the need for deficit financial environment facing the government by freezing overall non-defense discretionary spending at FY10 levels, but makes some “strategic” investments in areas such as research and education that the Administration argues are crucial for the country’s long-term health and competitiveness.

The House Republican approach, spelled out in a stop-gap funding bill, would cut budgets at those same science agencies from 5 to 18 percent compared to FY10, fully $100 billion less than the President requested last February for this fiscal year. Included in those cuts are substantial cuts to the Department of Energy’s research and education budget. The revised bill—necessary because the previous Congress could not reach a resolution on FY11 funding through the normal appropriations process—would cut $61 billion in discretionary spending compared to FY10, fully $100 billion less than the President requested last February for this fiscal year. Included in those cuts are substantial cuts to the Department of Energy’s research and education budget.

The House Republican approach, spelled out in a stop-gap funding bill, would cut budgets at those same science agencies from 5 to 18 percent compared to FY10, fully $100 billion less than the President requested last February for this fiscal year. Included in those cuts are substantial cuts to the Department of Energy’s research and education budget.

The version of H.R. 1 the House is considering as this goes to press is actually the second version of the bill proposed by House Appropriations Chair Harold Rogers (R-KY). In the original version, the bill contained substantial cuts to the DOE’s Office of Science ($874 million less than FY10, an 18 percent reduction) and NIST (15 percent reduction), but provided an increase in funding for NSF ($340 million vs. FY10, or 6 percent). However, that proposal, which cut a total of about $32 billion from the FY10 budget overall, was roundly rejected by the seven-member House Appropriations Study Group in the House as being insufficiently austere, and Rogers was forced to revise the proposal and find deeper cuts. The revised bill contains $61 billion in cuts to existing spending, more than $100 billion less than the President requested for FY11, and includes larger cuts to

President Proposes Science Increases - Continued on Page 6

NSF-CCC Workshop Explores Sustainability & IT

By Erwin P. Gianchandani and Ed Lazowska

Computing Community Consortium

About 60 leading researchers, program managers, and others gathered in Washington, DC, on February 3-4, 2011, to discuss new fundamental computing research opportunities that will arise as the nation and world seek long-term sustainable technologies and behaviors. This two-day meeting (http://cra.org/ccc/seesit), cosponsored by NSF’s CISE Directorate and the Computing Community Consortium, sought to go beyond routine uses of information technology to identify high-risk, high-reward research directions in sustainability that, as yet, may not have received adequate attention or funding.

The workshop comprised three sessions with plenary talks followed by breakout discussions and report-backs, as well as a fourth session that served as an integration/ wrap-up period. Tim Killeen, NSF’s Assistant Director for Geosciences, helped set the stage at the outset by describing the Foundation-wide, multi-year Science, Engineering, and Education of Sustainability (SEES) initiative (http://www.nsf.gov/ses). The breakouts on the first morning focused on IT areas, such as cyber-physical systems, human-computer interaction, big data (including security and privacy), modeling and simulation.

That afternoon, participants looked at application domains such as energy, transportation, and environment/ climate. The next morning, three topics served as the basis for the breakout groups: the data deluge; transparency of models; and systems integration. Some highlights:

• We learned about several large-scale projects that are meeting with success because computer scientists have been brought together with application domain experts rather effectively. For example, Carla Gomes (Cornell University) described her Expeditions project on climate modeling; and Dave Waltz discussed his Cor Edwin-funded work on machine learning and the electric grid.

• We also heard from application domain experts who clearly articulated the role of basic computing research in their areas. For example, Michael Meyer (Georgia Institute of Technology)—a transportation systems engineer—gave an excellent overview of the transportation system, including where we are today, where we could be in the future, and how IT research is critical for facilitating/enabling this transition.

• Andy Millemann (University of California-Irvine; author of Crossing for IT) gave a talk coupling technology with basic human needs, such as happiness and safety.

Several new ideas emerged from the discussions, such as the sustainability of sustainable data, the breadth of the sustainability space; and the richness of the computational problem; and the challenges particularly for transportation.

The organizing committee hopes to have a final report describing the sustainability space—and particularly the role of computing research—in about a month. In the meantime, please visit the workshop website (http://cra.org/ccc/seesit) to review the full agenda, speakers’ slides, and two-page white papers from many of the participants, along with a wealth of other information. Videos of the plenaries and breakout group reports will be posted there shortly as well. In addition, join in on the discussion stemming from the workshop by providing your views on
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March 2011

Expanding the Pipeline

NCWIT Offers Community, Resources, and Results
By J. McGrath Cohoon

How does your organization contribute to building a better future for and through computing? Are you having a positive impact on gender in computing? NCWIT can help with that.

NCWIT, the National Center for Women & Information Technology, was founded in 2004 as a non-profit coalition of organizations that develops and amplifies efforts to diversify computing. NCWIT's Leadership team consists of the co-founders—Lucy Sanders, Robert Schnabel, and Telle Whitey—along with elected leaders and support staff from each of the NCWIT Alliances. Together, they oversee strategic and operational decisions and guide the implementation of NCWIT's mission. That mission is to create community, resources, and awareness that strengthen the computing workforce and advance technology innovation through women's full participation. Reaching this goal is crucial for many reasons, including our nation's economic success, security, and progress toward a just and equitable society.

NCWIT convenes and provisions a growing coalition of over 200 prominent corporations, academic institutions, government agencies, and non-profits organized into Alliances. Annual NCWIT summits bring these groups together; NCWIT research-based materials identify and explain effective interventions for promoting diversity; and NCWIT campaigns, publications, and awards spread awareness of gender issues in Information Technology. In collaboration with and through its member organizations, NCWIT serves as a learning community that works toward reforms across the full education and career spectrum, helping to keep the IT industry strong and healthy.

Evidence suggests that NCWIT is making progress.

Alliances Focus on Reform They Can Influence

Member organizations form Alliances and work together on conditions that affect girls and women in computing. These Alliances are communities of academic, workforce, K-12, and entrepreneurial institutions that employ evidence-based practices in their reform efforts. The Academic Alliance (AA), for example, includes 151 higher education institutions focused on computing education and organizational culture. Currently, the members are working together on four projects: 1) a toolkit for designing research experiences for undergraduate women, 2) sharing their own experiences with practices that improve the gender balance in computing, 3) recruiting and engaging new members, and 4) offering a webinar series. All of these projects incorporate relevant research findings and assessment methods from sociology, psychology, communication, and other disciplines that study the relationship between gender and technology, pedagogy that engages diverse students, or organizational change. NCWIT supports these Academic Alliance efforts with its Seed Fund (sponsored by Microsoft Research), its new Student Chapter Fund (sponsored by Return Path), and through an NSF-funded Extension Services program.

The NCWIT Extension Services for Undergraduate Programs (ESUP) provides trained consultants and program evaluators who serve AA members. The consultants first seek to understand conditions and issues specific to their client departments, and then make research-based recommendations for improving women’s recruitment and retention. Consultants support faculty in strategically planning and evaluating the reforms their departments undertake, collect data to document progress, and assist with disseminating word of client accomplishments. Like all NCWIT resources, this valuable service is free to AA members thanks to funding from NCWIT sponsors.

Members of the NCWIT Academic Alliance have evidence of measurable progress toward the goal of gender balance in their undergraduate programs. The external evaluation for NCWIT, Dr. Elizabeth Littler of the University of Washington’s Center for Workforce Development, investigated progress in women’s representation for these programs. Dr. Littler found that the majority of NCWIT AA members improved women’s shares of enrollment by an average of three or four percent during a time when the national average enrollment of women in computing declined. Her findings demonstrate a positive relationship between active NCWIT membership and the attractiveness of computing careers. With its vast reach into national portions of the computing career path. With its vast reach into national organizations (e.g., Girls Scouts of the USA, 4-H, International Society for Technology in Education, Computer Science Teachers Association, and many others), the K-12 Alliance seeks to improve the image of computing and the teaching of foundational computing skills. This year the K-12 Alliance is launching a new national campaign (sponsored by Merck) to give K-12 professional school counselors information about IT educational pathways and careers. At the face-to-face level, the Entrepreneurial Alliance creates a platform for member collaboration on engaging more women in starting IT businesses. The Entrepreneurial Alliance honors women who start IT companies with its annual Synopsys Innovator Award, and has a regular podcast audio interview series with women technology entrepreneurs. This interview series is an excellent source for entrepreneurial educational programs, and also serves to inspire young women to consider an entrepreneurial path.

NCWIT’s Social Science Advisory Board (SSAB) serves as a valuable resource for all the NCWIT Alliances. Leading social scientists with expertise in policy, anthropology, gender studies, technology education, and organizational change consult on
Musings from the Chair
Capturing the Design Crowd
By Eric Grimson, CRA Board Chair

A few months ago I was talking to a group of freshmen who had just decided on their major. I asked them how they had made that decision. One young man told me that he had been torn between mechanical engineering versus electrical engineering and computer science. After a lot of careful thought, he had finally opted for mechanical. I told him that was a great major, but asked what had finally crystallized his decision. His response was that he was really excited about design, and thought that mechanical engineering was a better option. Out of curiosity, I asked him for his favorite example of a well-designed product; his response was to reach in his pocket and pull out his iPhone. Somewhat surprised, I asked how he thought was inside the iPhone—a bunch of tiny gears? Now perhaps this was a slightly confused young man, but the story carries a message for our community. Further discussion revealed that he was fascinated as much with the uses of the iPhone—games, applications for search, social networking—than the software, the algorithms, or the computational architecture that is the heart of the thing.

While the story may be specific to this young man, I worry that it is symptomatic of a larger issue—that we as a community are losing the design competition. Clearly there are still many students and faculty members who are attracted to computational endeavors because of the great opportunity for design—whether of software systems, distributed networks, clever algorithms, interactive interfaces, intelligent appliances, or creative applications of existing techniques. But for many students, somehow the excitement of design in computation, whether it is design of the elements of a computational system or using a computational system as an integral tool in the design of something else, is being obscured or lost. We need to recapture that excitement. We need it to maintain a healthy influx of new talent into the field by attracting bright students with novel ideas that will spur the next set of great new ideas to computing research, not to other areas of engineering. We need it to ensure the creation of the intellectual foundations and technological infrastructure that will support the generation of new industrial enterprises. And we need it to enhance the central role of computation in the broader realm of design.

Recapturing the excitement of design in computation, and communicating it to students, will be a challenge. No one element will be enough; we will probably need action on many fronts. Finding ways to ensure that exciting and challenging design experiences are intertwined throughout our curricular experiences—and not just deferred to senior capstone projects or to graduate thesis work—will be important, and many institutions have found inventive ways to do this. Leveraging links to other fields to demonstrate the key role of design in computational methods in those fields will both help to attract students and demonstrate to funders the critical role of computation in design. Exploring methods to connect design opportunities in classrooms and laboratory settings with real-world practitioners, through links to alumni, local companies, or others, will help provide context to motivate design ideas. And importing best practices from other domains will enable us to increase the visibility of design as a central component of computational research and development.

And maybe the next time I have a conversation with students selecting majors, I will hear how a student selected computer science because that is the obvious place to design the next generation of mechanical devices.

Eric Grimson is Chancellor of MIT, the Bernard Gordon Professor of Medical Engineering, and Professor of Electrical Engineering and Computer Science at MIT.

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CIFellows Descend on Washington
By Erwin P. Gianchandani

Computing Community Consortium

Nearly 80 Computing Innovation Fellows (http://cifellows.org/) descended on Washington, DC, in mid-December for the 2010 CIFellows Project Research Meeting and Career Mentoring Workshop (http://cifellows.org/network/agenda). Funded by the National Science Foundation and run by the Computing Research Association and Computing Community Consortium, this meeting provided the 2009 and 2010 CIFellows with opportunities to network with one another and to receive career advice from leading experts in the field.

Microsoft’s Peter Lee kicked things off with a captivating dinner keynote presentation, describing his career trajectory, recent clean-slate initiatives he implemented at DARPA, and important observations and lessons about “Being a CIFellow.” He implored the CIFellows to be independent thinkers, to always keep in mind the value of basic research, and to simply be great researchers. “If in your research you are not failing occasionally, that probably means you are not thinking big enough,” Peter said. “You have to be willing to take risks and... have a few sleepless nights... to really figure out things.”

The meeting continued over the next two days with:

• Talks by NSF/CISE, DARPA, and the Laboratory for Telecommunications Sciences about funding opportunities and how to write compelling proposals;
• A one-minute madness (during which each of the CIFellows had 60 seconds to describe his/her background, research interests, and future career aspirations);
• A poster session with presentations by second-year CIFellows;
• A tutorial on how to write good proposals; and
• A series of talks on planning one’s research career, networking, teaching, mentoring, and managing students, landing a permanent position in academia or industry, and managing the work/life balance.

In preparation for the meeting/workshop, the CIFellows uploaded their CVs, one-page research abstracts, one-minute madness slides and—in the case of the second-year CIFellows—research posters to a new community Web portal for and about the CIFellows: http://cifellows.org/network.

Be sure to check it out to learn more about the CIFellows and their cutting-edge research projects.

Special thanks to Mary Jean Harrell (Georgia Tech) and Carla Ellis (Duke) who helped organize the program—and to all the speakers who devoted their time and energy to the meeting!

The CIFellows Project was first funded in 2009 to enable recent Ph.D.s in computer science to obtain permanent positions within academia and industry—the CIFellows Project was funded again in 2010 by NSF. The 2010 class of CIFellows, comprising 47 recent Ph.D. graduates from 34 different Ph.D.-granting colleges and universities within the U.S.—with assignments to mentors at 36 unique host organizations—was announced in early January: http://www.cra.org/ccc/press.release.1.14.11.php.

Dr. Erwin Gianchandani is the Director of the Computing Community Consortium (CCC) and the Computing Innovation Fellows Project (E-mail: erwin@cra.org; Ph: 202-266-2936; Fax: 202-667-1066).
NCWIT projects and assessment of interventions. They also briefly address members one-on-one. In addition to the guidance its members provide to the alliances, the SSAB disseminates theories and research relevant to girls, women, and information technology.

Pacesetters Publicly Set Goals

In 2009, NCWIT launched Pacesetters, a set of Academic and Workforce Alliance members committed to accelerating recruitment and retention of women in their organizations. Pacesetters publicly declared their individual goals for "not new women," women who would not otherwise have started or remained on the path to a computing career. A senior leader and an activist from each Pacesetter organizations work together to build teams, develop and fund reform programs, and share their results as they work toward their net new goals. With successive cohorts of Pacesetters’ contributions, the national representation of women in IT will move toward gender balance. NCWIT supports and facilitates progress by hosting annual meetings, providing expertise on: research-based effective interventions and on evaluation, and publicizing member successes.

Become a Member of NCWIT

NCWIT welcomes new member institutions or organizations committed to reform. Each member organization identifies at least one representative who will attend the annual meeting and act as a conduit for information and resources, bringing them back to colleagues, implementing the practices that are suitable for their environment, and reporting results back to their Alliance members. In return, members get the following: comprehensive resource dissemination, and networking benefits NCWIT has to offer.

The next NCWIT member meeting will be in New York City in May 2011. As with previous meetings in Portland, Oregon, Mountain View, California, Irvine, California, and Urbana-Champaign, Illinois, NCWIT will bring its members together with exciting and knowledgeable speakers to learn about research and practices that can improve diverse engagement in the study and professions of computing. Past speakers have included Maria Klawe, Ray Oztie, Jessica Jackley, Brian Nosek, Rick Rashid, Mark Uddall, Shelley Coreell, Freida Kapoor Kline, Michael Lomax, Joyce Roche, Bernice Sandler, Marie Wilson, Carolyn Buck-Luce, Chris Scaler, Jeff Kiesling and Padmawati Warrier. This year promises to be equally informative and stimulating. Scott Page will speak about the relationship between diversity and innovation; Joshua Aronson will identify ways of mitigating stereotype threat; Wendy Faulkner will explain how organizational change can happen; and David Pogue will answer questions about turning tech consumers into innovators—just a few of the interesting presenters.

To learn more about NCWIT membership and how it can help you build a better future for and through computing, visit ncwit.org, or contact an Alliance manager through info@ncwit.org.

Expanding the Pipeline from Page 2

Calling the Computing Research Community to Engage in a Conversation: PostDocs in Computer Science: Where are we now – and where should we go from here?

By Anita Jones and Erwin Gianchandani

Data from CRA's annual Taulbee Survey document substantial growth in the cadre of U.S. and Canadian postdoctoral fellows over the past decade. Most recently, the Computing Community Coordinating Committee (C2C) and National Science Foundation (NSF) have funded one- to two-year postdoctoral positions through the Computing Innovation Fellows Project, in hopes of retaining recent PhDs in computing research and teaching in times of difficult economic times. We believe it is time for the community to understand the significance of this PostDoc wave, assessing whether it is the right course of action for the field in the long term.

According to Taulbee data, the numbers of new PostDocs soared from 60 in 1998 to 134 in 2009 (a three-year rolling average). Given that the average duration of a PostDoc position is about 1.8 years, this increase is consistent with published data from NSF’s Computing and Information Science and Engineering Directorate (CISE). They report that of total of 336 PostDocs participated in CISE grants in 2009. (CISE provides about 82 percent of all federal funding for basic computing research, as 336 PostDocs is a fairly reasonable estimate of the total number of PostDocs in the field as a whole.)

By contrast, concurrent with the growth in the number of PostDocs, the absolute number of tenure-track faculty has declined sharply (from a three-year rolling average of 224 in 2004 to an equivalent of 151 in 2009). Moreover, the number of recent PhDs who are hired into industry, PostDocs is positive or negative for the field. Is it positive or negative for the field? Is it a sign of a maturing discipline? Is it matched to the activities needed to conduct computing research today?

Whatever the case may be, it is important to recognize that this is a substantial change, to understand its significance and likely impact in the short and long term, and to determine the best way forward for the field. While there are many perspectives on this change in the field, one of the most important is the impact on the PostDoc, the individual. By its very nature a PostDoc position is a temporary training position. Wages are dramatically lower than those of tenure-track, research and teaching faculty. In some universities the benefits of a PostDoc are more like those of a student than those of employees. Benefits to employees may be greater in areas such as health care, retirement, access to childcare, and access to wellness centers. At most universities and in industry, PostDocs cannot be Principal Investigators on grant proposals, reducing their independence at the time when they would be asserting it in most alternative positions.

From a personal perspective, PostDocs are typically an age when they marry and start families. A PostDoc position is not permanent. The individual must do another job search and, typically, must move from one geographic locale to another with the career opportunities, national disruption and expense that this causes. Relocation is more difficult for women and men who are nurturing a young family.

On the positive side, the PostDoc generally has freedom to focus almost entirely on research, presumably to their liking. Typically that is impossible for individuals in alternative positions such as teaching and tenure-track faculty. However, some PostDoc advisors do assign other obligations to the PostDoc. Credentials amassed during a PostDoc experience may materially increase the possibility of finding a permanent position in a more desirable organization than would otherwise be possible.

Anecdotally, some academic hiring committees are requiring publication records that are very difficult to amass during a PhD program, thus nudging the field to accept the PostDoc position as necessary in order to be hired into a tenure-track faculty position. Is this good for the field and for new entrants to the research enterprise?

We discuss the impact on the individual in this article. There are other perspectives to be considered. It is timely to have a discussion of these trends and to consider whether the CS research community should do things differently. These trends are the result of myriad individuals and organizations making independent decisions. But ultimately, those decisions should yield a collective result that the field believes to be most beneficial. To help facilitate this discussion about the need for, and role of, Pacesetters in the computing research community, the CRA commissioned a committee in November 2010 to prepare a white paper that reports the statistics associated with academic and industry hiring, articulates the relevant issues about PostDocs in the context of the many stakeholders, and specifically solicits input from the community. The white paper is available at http://cra.org/postdocs. The goal is for the community to determine the paper's conclusion by expressing their opinions on an associated blog—in particular, to articulate whether the PostDocs cadre should grow, shrink or stay the same.

We encourage you and your colleagues within your department or laboratory to review the white paper, discuss the issue, and post your views (collectively or individually) on the companion website (http://cra.org/postdocs). We seek to get a sense of the community by March 15. Following review of the comments received, the committee will prepare a revised version of the white paper articulating the community’s broad view (and consensus, if any) on this issue.

Weaning the field from dependence on a young, flexible and high-wage workforce is a challenge. The Computing Research Community has an important role to play in this conversation. While there are many perspectives in the field, one of the most important is the impact on the PostDoc, the individual.
Social Leadership: Empty Seats at the Table

By Dan Reed

I spend a good bit of time on airplanes, which has historically provided some respite from the needlessly deluge of electronic communications we all now face. Concomitantly, it provides the opportunity to think and write. Not too surprisingly, I am writing this column on an airplane. Why am I on airplanes you might ask? It’s definitely not for frequent flyer miles.

Instead, I travel to visit governments, universities, companies and nonprofit organizations (NGOs) to discuss the future of computing technologies and their likely effects on society. The second is the profound dearth of computing researchers engaging in these policy discussions.

In the Information Age, those of us who are computing researchers are well placed to be bilingual, translating computing technology trends and capabilities into the language understood by policy makers and other influencers, and, in turn, relating policy desires to other researchers. However, as I talk to groups across North America, I am repeatedly struck by the relatively small number of computing researchers who are engaged in the formative policy discussions regarding our technological and economic future.

There are empty seats at the policy table, seats that should rightly and effectively be filled by senior computing researchers as we discuss science and technology research investments; personalized medicine and health care; smart grids, energy and the environment; education and digital inclusion; privacy and security; communications and access; and our economic competitiveness.

Your help is needed now to make CS Principles an official AP Course! A significant number of departments across the country must agree to give it credit and/or placement.

Action: To insure success of the community’s long effort to create a solid computer science course for all high school students, make sure your department signs the credit/placement attestation at http://www.collegeboard.org/apstudents/ and check as many boxes as apply. Support is most useful before May 15, 2011.

The College Board and the NSF-funded team building the new Advanced Placement test in computing seek endorsements of their effort beginning March 11, 2011. The proposed course, formally known as Computer Science Principles, resulted from a two-year effort to build a curriculum framework for concepts-rich computing class; it relied on wide community input. The course is rigorous, engaging and inspiring. As such, the team hopes to attract a broader, more diverse population of computing majors by exposing high school students to solid CS concepts. They also hope that teaching the course in college—perhaps as a CSW—will attract community college and college students to the major as well.

According to its creators, CS Principles will encourage women and underrepresented minorities to enter computing by creating, transforming and even destroying companies and economic sectors, obviating certain skills and spawning demands for others, and even shifting government interactions and expectations.

Endorsement Effort Announced for Proposed AP CS Principles Course

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Collaborative Research Experiences for Undergraduates (CREU)

Application Deadline: May 10, 2011

Sponsored by CRA’s Committee on the Status of Women in Computing Research (CWAR) and the Coalition to Diversify Computing (CDC), the CREU program is aimed toward increasing the number of women and underrepresented minorities who go on to CS&E graduate programs.

AP courses, by design, are college level and CS Principles is no exception. It has been piloted this academic year at five schools: the Metropolitan State College of Denver, UC Berkeley, UC San Diego, University of Washington, and UNC Charlotte. This fall, it will be piloted in additional high schools, 2- and 4-year colleges, and universities. AP CS Principles represents a significant opportunity for the computing community because it will introduce a rigorous, academic computing course into high schools nationwide. (The current AP CS A will continue but it attracts relatively few students.) With CS Principles, we can reach a larger, broader audience. Find more at http://csprinciples.cs.washington.edu.

Grace Hopper Celebration of Women in Computing

November 8–12, 2011
Portland, Oregon
Oregon Convention Center

http://gracehopper.org/2011/
DOE Science and NIST and reverses NSF’s originally proposed increase, reducing it with a 5 percent reduction in budget.

The Republican leadership brought the bill to the floor under an “open rule,” a somewhat unusual move for a continuing resolution, which allowed any member to offer an amendment to any portion of the bill while under consideration. As a result, at press time, there were more than 400 amendments pending, leaving final House-approved funding levels for federal science agencies uncertain. Also adding to the uncertainty is the Democrat-controlled Senate, which is far less likely to go along with the deep cuts to science programs to be approved by the House. It is very unclear how the House and Senate will reach compromise numbers, and how the threat of a Presidential veto will impact the negotiations. For the latest updates on how science agencies fared in FY11, see CRA’s Computing Research Policy Blog (http://crai.org/blog).

The President’s budget request takes a much more favorable view of the importance of the federal investment in science, a message the President has apparently decided to make a key theme of his presidency. In January, the President spent the first 25 minutes of his State of the Union Address, focusing on science, education and their importance to innovation and the long-term competitiveness of the U.S., a remarkably prominent mention for R&D. He followed it with two weeks of speeches throughout the country touting this innovation theme. In one sense, the effort has been a boon to the science advocacy community, giving prominence to issues and themes they’ve been trying to raise for years. In another, though, the additional attention has actually made federal R&D a lot more contentious and partisan. Because the President has made science funding a cornerstone of his Administration, those looking to oppose the President almost have to oppose more federal spending on science.

Politically, this may be a smart move for the President as it allows him to set up the Republicans as the anti-science, anti-innovation, antiprogress party. Practically, though, it makes the job of the science advocacy community much more difficult because what used to be a non-partisan, almost non-noticeable chunk of the federal budget is now a prominent, partisan battle. It is easier to make gains in today’s narrow-electorat-margin times by being non-partisan and under the radar. That tension is increased by the color science advocacy efforts going forward this year and next.

In his budget request, the President has prioritized funding for a number of key science agencies. Under the President’s plan, NSF would receive $77.7 billion in FY12, an increase of 13 percent over FY10 (comparisons with FY11 are impossible because Congress still has not finished FY11 appropriations as this goes to press). NSF’s Research and Related Activities (R&RA) accounts would see an increase of 12.4 percent versus FY10; an increase of $669 million. NSF’s Education and Human Resources account would also grow, though at a more modest 4.4 percent, a $38 million increase.

Computing research at NSF would see a disproportionate level of increase in the President’s budget—an indication that computing research is viewed as especially responsive to agency and national priorities. NSF’s Computer and Information Science and Engineering (CISE) directorate would see an increase of $10.6 million to $728.4 million in FY12, a 1.7 percent increase over FY10—well above the R&RA average of 12.4 percent and second only to the Engineering directorate’s 22.1 percent increase. Investment in IT research foundationwide would increase to $1.26 billion in FY12; an increase of $167 million over FY10, or 15 percent. The DOE’s Office of Science would also see a healthy increase under the President’s plan. Funding at DOE Science would increase 9.1 percent compared to FY10, to $5.4 billion. DOE’s Advanced Scientific Computing Research program would grow 22 percent to $466 million in the request. And Basic Energy Sciences would grow 24 percent to $1.9 billion.

NIST would see significant increases under the President’s plan as well. NIST’s research accounts would grow more than 48 percent from FY10, to $872 million in FY12. That funding includes $621 million for NIST’s research accounts in Scientific and Technical Research Services, an increase of $160 million vs. FY10. Also notable in the President’s Budget Request is a proposal to auction a portion of radio spectrum and use the proceeds from that auction to fund a new Wireless Innovation and Infrastructure Initiative. This aims to double the amount of wireless spectrum available for mobile broadband, provide at least 90 percent of Americans with access to 4G high-speed wireless, create a $3 billion fund to enable R&D of emerging wireless technologies and applications (including $1 billion in research funding at NSF), develop and deploy a nationwide, interoperable wireless network for public safety, and funnel nearly $10 billion into deficit reduction over the next decade. The President’s proposal requires an act of Congress both to set the auction and determine where the proceeds would be spent, but the plan should help catalyze the discussion in Congress. Congress will take up the President’s budget as soon as they finish work on the FY11 continuing resolution. Republicans in the House have already characterized the plan as “dead on arrival” for its failure to aggressively rein in federal spending, but Democrats in the Senate will have much to say on the issue as well. As always, check CRA’s Computing Research Policy Blog for all the latest numbers and news.

President Obama’s FY 2012 Budget Request

Selected Science Accounts

( in millions)

<table>
<thead>
<tr>
<th>National Science Foundation</th>
<th>FY 2010 Estimate</th>
<th>FY 2012 Request</th>
<th>Change from FY 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>$6,873</td>
<td>$7,768</td>
<td>$895</td>
<td>13.0</td>
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<tr>
<td>Research and Related Activities</td>
<td>$5,564</td>
<td>$6,254</td>
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<td>CISE Directorate</td>
<td>$619</td>
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<tr>
<td>Office of Cyberinfrastructure</td>
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<tr>
<td>DOE Office of Science</td>
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<tr>
<td>Advanced Scientific Computing Research</td>
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<td>NIST</td>
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<td>Scientific and Technical Research Services</td>
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<td>Defense Science and Technology</td>
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<td>Basic Research (6.1)</td>
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<td>Advanced Research (6.2)</td>
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<td>Info and Communications Tech</td>
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<tr>
<td>Cognitive Computing</td>
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<td>-$84</td>
</tr>
</tbody>
</table>

President Proposes Science Increases in FY12 as Congress Proposes FY11 Cuts from Page 1

Grimson Appointed Chancellor of MIT

CRA’s board chair, Eric Grimson, has been appointed Chancellor of MIT, effective March 1, 2011.

In making the announcement, MIT President Susan Hockfield stated: “I am very pleased that Professor Grimson has agreed to take on this critical post. He has demonstrated in every imaginable way his commitment to ensuring the fullness of the educational experience of our students. His record of scholarship, teaching and service to MIT is measured not only in decades, but also in the thousands of students he has taught, advised and mentored.”

A leading expert in computer vision, Grimson has been affiliated with MIT for 35 years and served as the Head of the Department of Electrical Engineering and Computer Science (EECS) since 2005. As a member of MIT’s Computer Science and Artificial Intelligence Laboratory, Grimson led the computer vision group as it pioneered state-of-the-art systems for activity and behavior recognition, object and person recognition, image database indexing, image guided surgery, site modeling and many other areas of computer vision. Grimson previously served as the Education Officer for ECCS and as Associate Department Head. Grimson has also long been active in service to the MIT community and, in particular, to students. He has served on the Commencement Committee for 20 years, chairing it for the past 13. He chairs the Faculty Advisory Committee on Student Support Services, serves on the governing board of the Gordon Engineering Leadership Program, and co-chairs the Education Working Group of the Provost’s Task Force. He currently is academic advisor to 26 EECs students.

Crucial Computing Research Blog for all the latest numbers and news.
future directions at the intersection of sustainability and IT at [http://www.ccclblog.org/2011/02/10/a-workshop-on-sustainability/].

Special thanks to the members of the organizing committee for putting on an outstanding workshop together in a short time frame: Bob Sproull (Oracle; chair), Randy Bryant (Carnegie Mellon University; co-chair), Doug Fisher (Vanderbilt University), Carla Gomes (Cornell University), Krishna Kant (Intel Corporation & NSF), Bill Rose (Georgia Institute of Technology), Patrick Shepheard, John Mitchell, Professor University; Gregory Hager, Professor University; Hank Levy, University of Washington; Jitendra Malik, University of Washington; Hank Koller, University; Levy, University; Ari Requischa, Professor Computer Science, Stanford University; and Josep Torrellas, Professor of Computer Science, University of Illinois at Urbana-Champaign. In addition, Bob Sproull, Vice President & Director of Oracle Labs—which its previous term ended this year—has agreed to continue, and he was appointed to a second term effective through January 2014. These appointments ensure 18 Council members with three-year terms, staggered such that about six rotate every January, plus Council Chair Ed Lazowska (University of Washington) and Vice-Chair Susan Graham (University of California—Berkeley).

Rotating off the Council this January were Bill Feierstein (Intel Corporation), David Kaeli (Northwestern University) and John King (University of Michigan).

UROZone

As reported previously, the CCC is providing a web resource for undergraduates seeking research opportunities. This resource, called the Undergraduate Research Opportunities Zone (UROZone) and located at [http://crca.org/ccc/un-zone/], offers an introduction to computing research; examples of successful undergraduate computing research projects, including anecdotal stories of recent CRA and ACM undergraduate research awards; and a growing list of possible opportunities. This website should be particularly useful and timely in the next few months, as undergraduates interested in getting involved in research this summer look for appropriate placements.

Research Visions Sessions

Finally, as part of its mission to identify major new research opportunities, the CCC is sponsoring a series of “research visions” sessions at several computing research conferences. The goal of these sessions is to break free of the shackles of the normal reviewing process while still requiring a paper. In this way, the “research visions” sessions differ from a “midnight session” of informal talks, in that the paper allows the ideas presented to be more broadly accessible. To incentivize submissions to these sessions, the CCC has offered travel awards to the top three papers/presentations, as judged by program committees or participants, and publicized the winners through the CCC Blog.

To date, these research visions sessions have been held—and the CCC has blogged about the results, including the top submissions:

• A “Fun Ideas and Thoughts” session at PLDI 2010: [http://www.ccclblog.org/2010/07/26/pldifulfun-ideas-stimulating-new-research-visions/]
• A “Research Vision” session at OSDI 2010: [http://www.ccclblog.org/2010/10/07/researchvisions-at-osdi-10/]
• An “Outrageous Ideas and Visions” (OIV) track at CIDR 2011: [http://www.ccclblog.org/2011/01/18/outrageous-ideas-at-cidr-seeking-to-stimulate-innovative-research-directions/] Please take a look at these summaries—and be sure to contact the CCC if you would like to run a session at an upcoming conference or workshop you are organizing.

Designing a Digital Future

Five members of the CCC Council—Randy Bryant, Susan Graham, Anita Jones, Ed Lazowska, and Bob Sproull—served as members of the Working Group that advised the President’s Council of Advisors on Science and Technology on a recent assessment of the Federal Networking and Information Technology Research and Development Program. The impact of the report—Designing a Digital Future—is already evident in the President’s FY2012 budget request. Complete information is available at [http://lazowska.cs.washington.edu/nitrdf/].

Dr. Erwin Gianchandani is the Director of the Computing Community Consortium (CCC) and the Computing Innovation Fellows Project. Dr. Ed Lazowska is Chair of the CCC Council and Bill of Melinda Gates Chair in Computer Science & Engineering at the University of Washington.

NAE Announces New 2011 Members Elected

The National Academy of Engineering (NAE) recently elected 68 new members and nine foreign associates, bringing the U.S. membership to 2,290 and the number of foreign associates to 202.

Congratulations to the new members elected in the Computing Science & Engineering section: Susan Dumais, Microsoft Research; Daphne Koller, Stanford University; Hank Levy, University of Washington; Jitendra Malik, UC Berkeley; Nick McKeown, Stanford University; Dan Norman, Northwestern University; Ari Requischa, University of Southern California; Fred Schneider, Cornell University; Mihalis Yannakakis, Columbia University; Jennifer Zhou (University of Toronto) was elected as a Foreign Associate.

NAE Members Elected

According to the NAE’s press release of February 8, 2011, election to the National Academy of Engineering is among the highest professional distinctions accorded to an engineer. Academy membership honors those who have made outstanding contributions to “engineering research, practice, or education, including, where appropriate, significant contributions to the engineering literature,” and to the “pioneering of new and developing fields of technology, making major advancements in traditional fields of engineering, or developing/ implementing innovative approaches to engineering education.”

Computing Research News

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Change of Address: Note that a change of address must include the old and new addresses with ZIP+4. Please include a street address or PO Box number.

Postmaster: Send address changes to: CRA, 1828 L Street, NW, Suite 800, Washington, DC 20036. Postage paid at Washington, DC.

Computing Research Association Staff
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Betsy Beot, Director of Statistics and Evaluation
Erwin Gianchandani, Director of the Computing Community Consortium
Peter Harder, Director of Government Affairs
Kenneth Hines, Research Analyst
Sabrina Jacob, Senior Administrative Assistant
Melissa Nort, Policy Analyst
Kapil Parnuk, IT and Web Manager
Carlos Romero, Director of Programs
Jean Smith, Sr. Communications Associate and CRN Editor
Please send your applications to: Prof. Jean Pierre Hubaux, Computer Science Department, Metropolitan College, Boston University, 807 Commonwealth Avenue, Boston, MA 02215 or email (preferred) to: Camille Kardosse at cckardosse@bu.edu. Application review will commence on December 1, 2010 and continue until the position is filled.

Boston University is an affirmative action/equal opportunity employer. Applicants with disabilities are encouraged to apply.

Camgie Mellon University
Computer Science
Two Postdoctoral Positions on Ensemble Programming

We are seeking applications for two postdoctoral positions in a project aimed at developing a usable and verifiable programming language for large distributed ensembles of agents. One position is based in Pittsburgh and the other in the CMU's Qatar campus, with travel between the two.

Applicants should have a strong background and interest in some combination of compiler-aided term reusing, concurrency, massively distributed systems, programming language design and implementation, linear logic, programming or swarm robotics.

Professor Jean-Pierre Hubaux

The duration of employment is flexible, with an upper bound of 4 years.

Starting date: to be agreed upon, possibly in summer or fall 2011.

If you are interested in this position and believe you can bring value to our research, please send (preferably before March 15, 2011) a research statement (explaining notably how you would contribute to our activities), a resume, and the names, email addresses, and phone numbers of at least 3 referees to: jean-pierre.hubaux@epfl.ch

Please mention "Application to Postdoctoral Position LCA1-2011-1" in the title of your email.

More information about our research activities can be found at: http://people.epfl.ch/jean-pierre.hubaux

FX Palo Alto Laboratory, Inc.
Research Scientists

FX Palo Alto Laboratory (FXPAL) conducts multidisciplinary research in software technology and communication and collaboration research for Fuji Xerox Co., Ltd., a joint venture between Fuji Corporation of America and Fujifilm of Japan. FXPAL’s mission is to research and invent new technologies, cooperate with FX business units to develop and transition technologies into products, and interact with the US software industry to discover new products for the Fuji Xerox market.

We currently have immediate openings for regular full-time employees and visiting scientists with research interests in the full range areas: cloud computing, computer vision, multimedia applications, location-aware and event-processing applications, verifiable programming language, documents, mixed reality environments, and database systems.

Candidates should be interested in working on practical applications in a collaborative setting. Regular full-time positions require B.S. in Computer Science or related field and strong development skills. Visiting Scientists positions require B.S. with extensive record of research contributions and experience.

To apply, please email your resume: fxpalresumes@fxpal.com.

We are an equal opportunity employer and value diversity in the workplace.
Internetworked Systems Security Network
Call for Post-doctoral Research Fellows


ISSNet consists of 14 professors and their students at eight universities in Canada, plus research partners. ISSNet is focused on practical systems security issues involving real world data sets of traffic and malware, user studies and experimental and analytical methodologies. The research of the network is divided into three themes: network-oriented security, software system-oriented security, and human-oriented security. ISSNet does not focus on cryptography, wireless security, or privacy explicitly although these areas often play a role in the research.

ISSNet has several post-doctoral fellowship positions available. The fellowships are for two years with a possibility of renewal for a second year. Applications will be reviewed on an ongoing basis until positions are filled.

Please send a cover letter and curriculum vitae to the attention of: Director of Operations, NSERC ISSNet at shirley.mickey@issnet.ca. Your cover letter should specify the area(s) or project(s) you wish to focus on during the fellowship and the ISSNet institution or researcher(s) ([https://www.issnet.ca/sponsors)](https://www.issnet.ca/sponsors) with whom you wish to work. It is recommended that you contact the researcher(s) you specify in the cover letter prior to the submission of your application to discuss a possible collaboration.

ISU is an AA/EEO employer.

For more information visit https://jobs.indstate.edu

Institute for Defense Analyses
Center for Communications Research, La Jolla, CA
Research Staff Member (Computer Scientist)

The Center for Communications Research (CCR) in La Jolla, California, is seeking a Ph.D-level computer scientist with a strong mathematical background to address problems in network security, cryptography, and high-performance computing. CCR’s researchers work on difficult scientific problems vital to the nation’s security, often engaging multidisciplinary teams with backgrounds across a broad range of computing, mathematics, and statistical sciences. The collaborative atmosphere and fascinating problems provide for a robust research experience and a rich sense of intellectual inquiry. Candidates should have experience communicating with researchers in different areas, as well as a strong programming background and expertise in at least one of the following areas: algorithms, network systems, architecture, software engineering, and high-performance computing. IIA/CCR offers a competitive salary, an excellent benefits package, and a superior professional working environment. US citizenship and a high-level security clearance are required for employment; CCR will sponsor the clearance for those selected. The Institute for Defense Analyses is proud to be an Equal Opportunity Employer.

Please send inquiries or applications to
rmjdsf@crexnet.org

Le Moyne College
Department of Mathematics and Computer Science
McDowell Chair in Computer Science

Le Moyne College is currently searching for the McDowell Chair in Computer Science, endowed through a $5 million gift. This new Endowed Chair will provide leadership and direction in helping the College create the McDowell Center for Research into the grand challenges facing the sciences and humanities, and is the first of four Endowed Chairs the College will be hiring.

Le Moyne College, located in Syracuse, NY, is a private college of liberal arts and sciences known for its teaching in graduate and masters’ programs. Established by the Jesuits, the College provides students with a comprehensive academic program designed to foster intellectual excellence and preparation for a life of leadership and service. Syracuse, NY is a center of excellence for research in green technology, and is home to four universities and four major healthcare institutions that provide a diverse research community.

We seek candidates who are superior scholars and excellent teachers committed to undergraduate education. Experience applying computational thinking across a range of domains is important. Areas of specialization may include intelligent systems, graphics and virtual computing, information management, software engineering, programming languages, and algorithm complexity.

Application Instructions
Submit a cover letter and curriculum vitae to lemyonf@lemyonenet.edu, with high-performance computing and natural language processing as a subject line of Computer Science. Visit our website at http://www.lenmains.edu/computer-science.

Professional Opportunities

ISNet is a Non-Profit Corporation that provides unparalleled scientific and management services to military medical research and education programs worldwide. Our mission is to advance military medical research. AA/EEO

For a comprehensive list of our benefits, please visit:
http://www.lenmains.edu/careers/benefits.html

Indiana University
Mathematics and Computer Science

The Department of Mathematics and Computer Science at Indiana State University invites applications for Department Chairperson, a tenured-track position at the rank of Associate or Full Professor. University incentives apply for Department Chairperson, a tenured-track position at the rank of Associate or Full Professor.

ISU is an AA/EEO employer.

For more information visit https://jobs.indstate.edu

Millaps College
Computer Science Department
Fulbright Sabbatical Replacement

Computer Science Department seeks 1-year full-time sabbatical replacement beginning Fall 2011, to teach undergraduate courses at the College. Teaching load is 4 courses per semester. Salary is competitive. For details, see: http://www.millsaps.edu/about_mills/appliedOpportunities.php

Naval Postgraduate School
Postdoctoral Positions – Arlington VA and Monterey CA

Applications are invited for one of two postdoctoral positions in Digital Forensics in Arlington VA or Monterey CA.

Digital Forensics is a new interdisciplinary area that draws upon machine learning, systems engineering, natural language processing, high performance computing, and human-computer interaction. DFCP is a recognized leader in the field with a growing research portfolio, one of the largest academic collections of forensic data on the planet, and close ties to forensic practitioners in law enforcement, the military, and government.

Competitive candidates will have demonstrated research expertise in Computer Science, Security Engineering, Storage, Data Mining, Information Retrieval, Machine Learning, or a related field.

Our new ”NPS East” location in Arlington just a few blocks from the Ballston Metro Station. Our Monterey location is on the coast in Central California. Applicants may apply to work in either location.

Candidates should hold a PhD in Computer Science or a closely related field. Candidates must be US citizens and be able to obtain a SECRET security clearance; non-US residents will not be considered.

For additional information or to apply please send email to both Simson Garfinkel and Joel Young at algosr@nps.edu and jdyong@nps.edu.

The Naval Postgraduate School is an Equal Opportunity Employer.

NEC Laboratories America, Inc. (Reseda, CA)- Artificial Learning and Computer Vision

NEC Laboratories America, Inc. (www.nec-labs.com) is a vibrant industrial research center, renowned for technical excellence and high impact innovations. Our research programs cover a wide range of technology areas and maintain a balance between fundamental and applied research, with the goal of providing a technological edge for NEC’s global business. The lab provides an exciting environment for creative researchers, offers attractive benefits, and strives to help researchers to shape their research paths in their respective fields. NEC Labs is headquartered in Princeton, NJ and has a second location in Cupertino, CA, the heart of Silicon Valley.

The Media Analytics Department in Cupertino, CA is seeking an outstanding and enthusiastic researcher, with background in machine learning and computer vision, to work on developing visual recognition technologies for novel mobile applications, web services, and B2C solutions. We expect the candidate to be strong in conducting cutting edge research, and also passionate about turning this research into marketable products and services. We encourage researchers to establish leadership in the research areas and to pursue active research collaborations with top universities in the US. In recent years, the team has won top performance prizes in various prestigious challenges and
evaluations, including PASCAL 2009 and Instructional
Required Skills or Experience:
• PhD in Computer Science (or equivalent)
• Strong publication in top machine learning or computer vision
• Solid knowledge in math, optimization, and statistical inference
• Hands-on experiences in implementing large-scale learning algorithms
• Great problem solving skills, with a strong desire for quality and engineering excellence
• Expert knowledge developing and debugging in C/C++
• Good knowledge developing and debugging on Linux
• Good knowledge developing in Java
• Experience with scripting languages such as Python, PHP, Perl, and shell scripting
• Experience with parallel/distributed computing
• Experience with algorithm implementation on GPU
• Experience with mobile or embedded systems
• Experience with image classification, object recognition, and visual scene processing
• Ability to work on other media data, like textual and audio data

For consideration, please submit your resume and a one-page research statement at:
https://neubib.hbs.hn.net/ats/jc_job_details.php?reqid=1007

NEC Labs is committed to creating a diverse work environment, and is proud to be an equal opportunity employer.

Oregon State University
School of Electrical Engineering and Computer Science
Assistant Professor/Associate Professor/Professor
The School of Electrical Engineering and Computer Science at Oregon State University seeks to hire a tenured-track professor who will develop her/his research programme, collaborate on problems of national significance. We are particularly interested in candidates with demonstrated research leadship in cutting edge problem areas as well as contributions to internet security and privacy, innovation in web search, health informatics, network science, social media, and computational biology.

Applications from those who seek to be a part of a vibrant, civil and diverse academic community and who do research and teach in the existing research areas and technology sciences are welcome. Qualified candidates are invited to send a cover letter with a statement of research and teaching interests, and the names of three letters of reference, as a PDF attachment, to csepositions@oregonstate.edu.

Review of applications will begin February 18, 2011 and continue until the position is filled.

This announcement is available at
http://ist.psu.edu/recruit

The Pennsylvania State University
College of Information Sciences and Technology
Frymoyer Endowed Chair Professor
The Pennsylvania State University College of Information Sciences and Technology (IIST) is seeking candidates for the position of Frymoyer Chair. The Frymoyer Chair is a tenured, full professor in the College of Information Sciences and Technology. The anticipated start date is in Fall 2011 or Spring 2012. The endowed chair was established in 1999 through a gift of $1.5 million from the Edward J. Frymoyer Foundation. The holder of the Frymoyer Chair is expected to have a significant impact not only in the college, but also in multiple disciplines at the University and in the public and private sectors. Funds from the endowed chair will support the chair holder’s contributions to instruction, research, and public service with the overall intent to foster the use, benefits, and effectiveness of the information sciences around the globe.

The Pennsylvania State University is the landgrant University of the Commonwealth of Pennsylvania. It is committed to the success of University Park campus, where the College is located, and 23 campuses throughout the state. The College was founded in 1859 to develop information science and technology leaders for the digital, global society, and is among the first five in the U.S. to include courses in computer science in its initial curriculum. The College has 50 full-time faculty, currently serving approximately 1100 undergraduate students and 400 graduate students, primarily in the Ph.D. program, and 100 nonresidential graduate students in a master’s degree program. In addition, the IST undergraduate curriculum is offered at 19 other Penn State campuses. In January 2004, the College moved into a new $100 million foot building on the University Park campus. The building houses both the College of IST and the Department of Computer Science and Engineering.

The College is one of the top 10 schools in our specialty according to U.S. News rankings. The College has a long-standing tradition of innovation, entrepreneurship, and service. It was founded in 1859, is the nation’s second-oldest private engineering school. It is located in Brooklyn Heights, one of the country’s most diverse, and is a short walk to Brooklyn’s historic brownstone neighborhoods and some of the city’s foremost museums and cultural activities.

Part of a six billion dollar academic and commercial complex at the heart of rapidly developing downtown Brooklyn, NYU-Poly is ideally situated close to Wall Street, City Hall, NYU’s Washington Square campus and a host of Manhattan attractions. For more information, visit www.poly.edu.

Review of applications will begin in January 2011 and will continue until the position is filled. Applicants should send their curriculum vitae, statement of research and teaching interests, and the names and addresses of three references, as a PDF attachment, to csepositions@poly.edu.

NYU-Poly is an affirmative action/equal opportunity institution and welcomes applications from diverse candidates and candidates who support diversity.

Reykjavik University
School of Computer Science
Faculty Position in Computer Systems
The School of Computer Science at Reykjavik University seeks to hire a faculty position in the field of computer systems, broadly construed. We are interested in an ambitious, highly-qualified academic who, upon developing her/his research programme, is interested in working with existing faculty and students in bridging research, in one or more of the research areas within the School, in particular artificial intelligence, software engineering and theoretical computer science.

The level of the position can range from a tenure-track position to a full professor, depending on the qualifications of the applicant. Salary level is negotiable and competitive with top positions.

The position is available starting in the summer/fall 2011, but later starting dates will be considered. The application deadline is 31 March 2011.

California Polytechnic State University
Faculty Position in Computer Systems
The Computer Science Department at California Polytechnic State University invites applications for a junior tenure-track faculty position to begin Fall 2011. Specific areas of computer science under consideration include: data-intensive systems, computer networks, cloud computing, mobile computing, computer architecture. Applications to cloud computing and sustainability are of particular interest. Exceptional candidates in other areas or at other ranks will also be considered.

The current department currently has twenty- four tenure-track faculty, including four NSF CAREER Award winners and two ACM SIGSOFT Distinguished Educator. The department has an ABET-accredited B.S., both a thesis and a non-thesis M.S., and a Ph.D. in Computer Science. The School has a full time faculty to maintain funded research programs and to be active in professional organizations. The department currently serves approximately 400 undergraduates and 120 graduate students. Further information about the department is available at http://cse.psu.edu.

PSU is the largest university in Oregon and is known nationally for its community engagement and sustainability initiatives. Its campus in downtown Portland as well as a research campus in Corvallis (both bus and rail), and near a variety of restaurants, cultural venues and outdoor activities. PSU’s urban setting provides a living laboratory for research and easy access to collaborations in industry, academia, and government. In addition, the current faculty includes Intel, Oregon Health & Science University, and Portland State University.

The Portland metro area has long been a leader in open-source development, and the City recently announced the PDX11 initiative aimed at making Portland “the most awesome place in the world” to start and grow a software firm. Applicants are expected to hold or be near completion of a Ph.D. degree in Computer Science or a closely related field. All applicants are expected to show great potential for future external research support and a demonstrated record of research excellence.

The faculty member will maintain scholarly activity in funded research and publications; teach undergraduate and graduate classes; provide professionally related public service; advise students, and support University activities through committee service.

For more information and application procedure, please visit http://cse.psu.edu.

For inquiries about this position, please contact the chair of the search committee.

York University
Faculty Position in Computer Science
The Computer Science Department at York University seeks to hire a faculty position in the field of computer systems, broadly construed. We are interested in an ambitious, highly-qualified academic who, upon developing her/his research programme, is interested in working with existing faculty and students in bridging research, in one or more of the research areas within the School, in particular artificial intelligence, software engineering and theoretical computer science.

The level of the position can range from a tenure-track position to a full professor, depending on the qualifications of the applicant. Salary level is negotiable and competitive with top positions.

The position is available starting in the summer/fall 2011, but later starting dates will be considered. The application deadline is 31 March 2011.
Professional Opportunities

USC Viterbi School of Engineering seeks a Program Director to manage and lead the Information Technology Program (ITP). ITP is an academic program at the Viterbi School of Engineering whose mission is to offer courses in applied technology to all students at USC. The program offers cutting edge and hands on courses in web development, new media, 3D animation, security, programming, video game design and programming, and other innovative topics in information technology. The unit is a leading source of curriculum innovation at our university and is also a leader in integrating emerging instructional technologies in the classroom. The Program Director will hold a faculty position. It is expected, but not required, that this will be a non-tenure track appointment.

The Program Director’s responsibilities will include, but are not limited to, ITP’s program planning, administration, marketing, and recruitment. He or she should be able to collaborate with faculty and IT staff to develop and implement innovative instructional labs and systems. It is expected that the candidate will also teach several courses per academic year. For more information, please visit: http://itp.usc.edu/ 

Application Process Instructions:

Qualified candidates must possess:

- Minimum education is a MS in information technology or related discipline. A PhD degree is preferred.
- Demonstrable supervisory, organizational and training skills.
- Excellent verbal and written communication and presentation skills.
- Awareness of emerging trends and opportunities in the technology industry.
- Skilled in program development and execution.
- 2–5 years of teaching experience.
- 2-5 years of management/supervisory experience.

Interested candidates should submit a detailed curriculum vitae, letter of interest and contacts for at least four professional references to Rona Smith in the USC Viterbi School of Engineering Office of the Dean at ronasmit@usc.edu.

The University of Southern California (USC), founded in 1880, is located in the heart of downtown L.A. and is the largest private employer in the City of Los Angeles. As an employee of USC, you will be part of a world-class research university and a member of the "Trojan Family," which is comprised of the faculty, students and staff that make the university what it is.

USC values diversity and is committed to equal opportunity in employment. Women and men, and members of all racial and ethnic groups, are encouraged to apply.

Stony Brook University
The Center of Excellence in Wireless and Information Technology (CEWIT) - Korea

The Center of Excellence in Wireless and Information Technology (CEWIT) at Stony Brook University, Stony Brook, New York, U.S.A., is a research and development center focused on cutting edge research in Wireless and Information Technology. CEWIT’s broad goal is to conduct first-class interdisciplinary research in the emerging, critical technologies of the information age and foster new enterprise development in these areas. Now in its 7th year, the Center has over 70 associated faculty members, and close to 300 graduate students engaged in various forms of government and industry sponsored research. The Center is housed in a 17,000 square foot state-of-the-art facility in the R&D Park of the Stony Brook University.

As a part of its globalization strategy, CEWIT has established a branch center in the Sungdo Global University Campus, Songdo, South Korea. The Korean branch will work in active collaboration with the Center in New York, and will focus on technologies of strategic importance to Korea and foster global collaboration. To learn more about CEWIT and its Korean branch, please visit www.cewit.org and www.suwiee.samsung.com. CEWIT is located in the Sungdo Global University Campus, Songdo, South Korea, about 1
University of California, Merced School of Engineering Senior Faculty Position in Electrical Engineering and Computer Science

The School of Engineering of the University of California, Merced invites applications from distinguished scholars and teachers at the Full/Associate Professor (tenured) level in Electrical Engineering and Computer Science. We are seeking exceptionally qualified candidates in all areas of Electrical Engineering and Computer Science. Fields of interest in Electrical Engineering include communication, control, sensors, signal processing, and computing. Fields of interest in Computer Science include artificial intelligence, computer architecture, databases, data mining, databases, distributed computing, graphics, machine learning, networks, operating systems, programming languages and compilers, sensor networks, software engineering, and theory. Areas in EE and CS are given consideration as well. Full position details at http://ecs.ucmerced.edu. AA/EQ

University of Miami, Coral Gables, Florida

Computer Science, Department of Electrical and Computer Engineering Faculty Positions at All Levels

The College of Engineering at the University of Miami (UM) invites applications and nominations for several tenure-track positions at all professorial levels and all departments. The College is seeking candidates with a strong record of scholarship with a focus on obtaining extramural funding, a demonstrated excellence in undergraduate and graduate teaching, interest in developing and implementing curricula that address multicultural issues, and a thoughtful commitment to university and professional service. For senior-level appointments, a proven record of extramural funding support is required. The College includes five academic departments, 850 undergraduate students, 250 graduate students, and 80 dedicated faculty, who have garnered numerous national and international awards including election to the National Academy of Engineering. Our current recruitment effort is focused on the areas of Bioinformatics, Cybersecurity, and Real-time Systems, and the areas of applications in health care informatics, games, and/or robotics and automation systems is a plus. UM College of Engineering is a hallmark of the faculty’s activities, including joint research with colleges in the Miller School of Medicine, the Rosenstiel School of Marine and Atmospheric Science, the School of Architecture, the College of Arts and Sciences, the School of Business Administration, the College of Engineering, the School of Education, the School of Law and the School of Medical and Health Sciences. A Ph.D. in engineering, science or a related discipline and one year work related experience in teaching is required prior to the appointment. Qualified applicants should mail (a) a letter of interest, (b) a resume and (c) at least three (3) letters of reference to: Dr. Shibah Asokan, Associate Dean for Academic Affairs, College of Engineering, University of Miami, Miami, Florida 33149-0101. Applications will be accepted until the position is filled.

University of Nevada, Reno Computer Science and Engineering Faculty Positions at All Levels

Applications are invited for a full-time lecturer position in the Department of Computing Science and Engineering in the College of Engineering at the University of Nevada, Reno. This is a nine-month, non-tenure track faculty position responsible for teaching and course development courses for the University’s undergraduate and graduate students. To be considered for this position one should have a MS in Computer Science or related fields. Two years of college/university level teaching with the ability to teach a breadth of introductory and core CSE courses. A strong interest in teaching with industry experience would be desirable. Academic advising and student mentoring experience would be a plus. For more information on this position and to begin the application process, please visit: https://www.unrsearch.com/postings/9564

Applications will be accepted until March 15, 2011 or until the position is filled.

EEO/AA

The University of Texas at Dallas Erik Jonsson School of Engineering and Computer Science, Department of Computer Science Tenure Track Faculty Positions in Computer Science

The Department of Computer Science of the University of Texas at Dallas invites applications from outstanding applicants for tenure-track positions in computer science. Preference will be given to candidates in the areas of Software Engineering, Systems Security, Intelligent Systems, Robotics and Quantum Computing, however, exceptional candidates in all areas will be considered. Candidates must have a Ph.D. degree in Computer Science, Software Engineering, Computer Engineering or equivalent. The University of Texas at Dallas invites applications for faculty positions at all ranks. Candidates for senior positions must have a distinguished record of research and publication, significant leadership ability in developing and expanding research programs, and a proven commitment to excellence in teaching. An endowed chair or endowed professorship position may be available for candidates who demonstrate proven leadership in the areas of computer science and computer engineering. Successful applicants will be expected to establish and maintain a highly productive external funded research programs that integrate computing research with existing computational, genomic, and other biological research, as well as participate in education at both undergraduate and graduate levels. Candidates are sought for a faculty position in a department that currently has 24 full-time faculty and 80 PhD students. The department offers a core research environment that enabled 5 faculty to secure prestigious CAREER awards. The department is part of a major research group in bioinformatics, group supported by several NSF and NIH grants at the level of over $1 Million/year. In addition to the traditional CS degrees (B.S., M.S. and Ph.D.) the department also offers a Ph.D. with an emphasis on Theoretical Computer Science and Bioinformatics.

Wayne State University is a large, comprehensive, Tier 1 research institution enrolling over 31,000 students and the largest one-campus medical school in the country. This is a unique opportunity, part of a Detroit renaissance that includes a multi-institutional research initiative and a novel statewide translational sciences partnership with Henry Ford Health Care System, Michigan State University and the Wayne State University School of Medicine. As an intrinsic component of this initiative, Wayne State University is expected to expand its substantial research enterprise through the next decade. Applications which must be submitted online at: http://wsu.jobs (in reference to posting #357522) should include a curriculum vitae and a statement of research interests. The search will remain open until all positions have been filled. Wayne State University is an equal opportunity/affirmative action employer.

West Virginia University Computer Science and Electrical Engineering Computer Science Faculty Position in Theory (Computational Logic)

The Department of Computer Science and Electrical Engineering invites applications for one postdoctoral position in the field of Algorithm Design and Combinatorial Optimization, with an emphasis on computational logic. Depending on the candidate and the department’s needs, as an earned Ph.D. in theoretical computer science (with an emphasis on logic) or applied mathematics or a closely related discipline. The position is for one year (August 15, 2011 through May 15, 2012) although it could be extended to an additional year depending upon performance. Deadline for applications is March 15, 2011.

West Virginia University (www.wvu.edu) is a comprehensive land-grant research institution enrolling over 28,000 students in 113 degree programs, including engineering and health sciences.

Interested candidates must send a letter of application, a CV and contact information for at least three references to k.subramanian@mail.wvu.edu. Review of completed applications will commence immediately and the positions will remain open until they are filled. The University reserves the right to make decisions of hiring as early as possible. Wayne State University is an affirmative action, Equal Opportunity Employer.