UNIVERSITY OF NORTH CAROLINA WILMINGTON

Summer 2007

Volume 9, Number 1

News Bytes

Inside this issue:

Special points of interest:

- Master of Computer Science and Information Systems
- New programs
- Outstanding students

We're Movin' On Up...

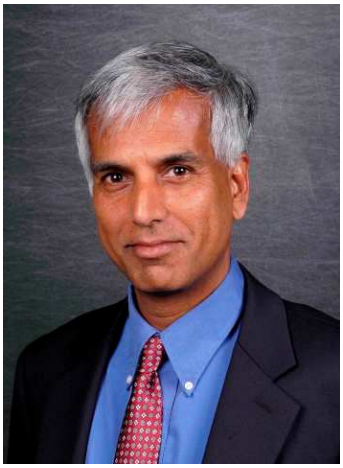
The theme song from *The Jeffersons* would aptly describe the past year. Last summer, as I wrote this column, I was in Bear 105, overlooking Randall Drive and its interminable traffic. This summer, I find myself writing these words from CIS (Computer Information Systems) 2015, overlooking the Campus Commons and its ornamental ponds, bridges and clock tower. Needless to say, the big story this year has been our move to the new CIS building.

After several years of planning, negotiating, design and construction, we finally moved into the CIS building in January 2007. The first few days were predictably chaotic, with locks that wouldn't open, doors that wouldn't lock and even an exciting moment when a malfunctioning lock caused Dr. Berman to be locked *into* his office - until he was let out! However, thanks to the efforts of all the faculty and staff, especially our secretary Emma Kay Thornton and our systems administrator Allen Randall none of the disruptions were severe.

Now, with the move a receding memory and the flurry of social events scheduled in the building abating, we find ourselves enjoying the amenities in the building, many of which are detailed elsewhere in this newsletter.

The 2006-07 academic year was a banner year for the department in many other respects. We awarded our first masters degrees in computer science and information systems. Thanks to the generosity of donors Mark Griffis and Dave Robertson, the David Bristol scholarship was established in the department. The $1,000 scholarship will be awarded annually to a computer science major and carries with it an expectation of service to the community by the award recipient. In February 2007, the department received a $1.18 million award from the National Science Foundation. This three-year research award, the largest in departmental history, will help support efforts to provide enhanced information technology experiences for students and teachers in grades 7-12 in area schools.

The year also saw some significant changes in our undergraduate curriculum. Coupled with the digital arts Lab in the CIS building, the new minor in Digital Arts offers students unprecedented opportunities to apply computing in the arts. Other curricular changes will allow computer science majors to concentrate in one of several areas including business, chemistry, statistics, biology, digital arts and geographic information systems.



Housed in an enviable new facility, peopled by savvy faculty and motivated students, we look forward to building upon the gains of this year. As always, I invite you to be a part of this process in any way that you can.

Sridhar Narayan, Ph.D.

Associate Professor & Chair

Faculty Focus

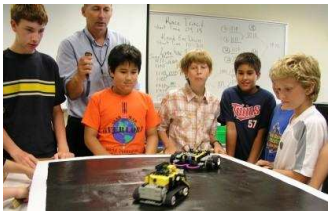
The NSF proposal titled "Using Squeak to Infuse Information Technology into the STEM Curriculum in Grades 7-12" was funded for $1.18 million over three years. **Gene Tagliarini** and **Sridhar Narayan** are co-PIs on this grant with Shelby Morge from the Watson School of Education. New Hanover, Brunswick and Pender County schools are partners in this proposal.

The department welcomed assistant professor **Devon Simmonds** in the fall after he attended and presented at a joint workshop of software engineers and other computer scientists held in Oslo, Norway.

Eric Patterson and **Karl Ricanek** had two publications in the *Proceedings of IASTED International Conference on Visualization, Imaging and Image Processing*, Palma de Mallorca, Spain, August 2006: "Automatic Representation of Adult Aging in Facial Images," with Midori Albert, and Edward Boone and "Craniofacial Aging on the Eigenface Biometric" with Edward Boone.

Gene Tagliarini hosted a visit and collaborated with professor Ashraf Abdelbar of the American University of Cairo (Egypt). As a result, two joint papers have been prepared (with Shawn Chivers). One was accepted for presentation at SIS 2007 (Honolulu, Hawaii) and the other is under review for IJCNN (Orlando, Florida).

Jack Tompkins, **Sridhar Narayan** and **Gene Tagliarini** received an Information Technology Innovations Grant for "Robotics in Programming and Summer Robotics Camp." See page 4 for details.



Laurie Patterson had three publications: "How Things Work: The Technology Underlying Podcasts" in IEEE Computer; "Student Response Systems and Gender: An Evaluation of its Success," in the proceedings of the 2006 World Congress in Computer Science, Computer Engineering and Applied Computing: The 2006 International Conference on Frontiers in Education: Computer Science and Computer Engineering; and "Evaluation of the Success of a Student Response System in a Computer Concepts Course" in the proceedings of the 2006 ASCUE Summer Conference: Maximizing Technology to Enhance Learning.

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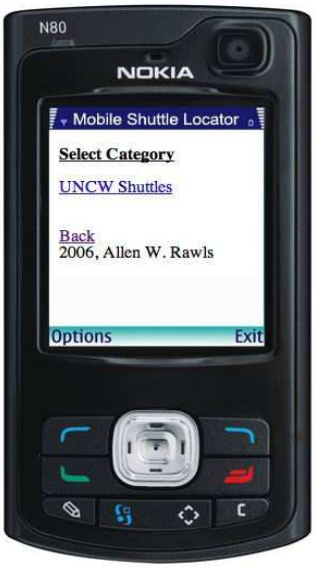
Student Showcase

GPS Technology Put to Innovative Use



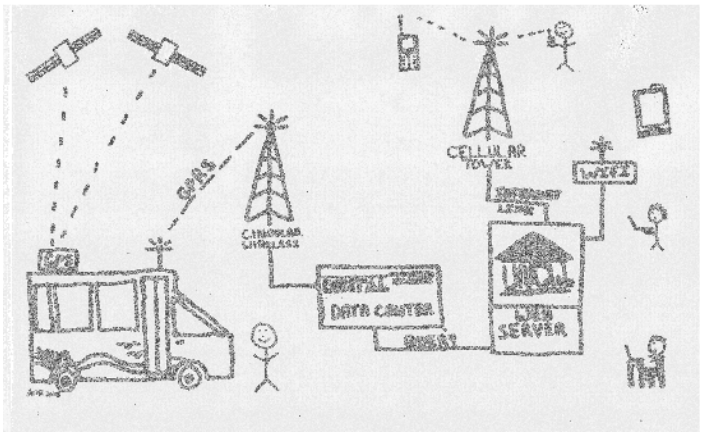
Graduate student **Allen Rawls** doesn't like wasting time waiting for buses that are late, and he's helping follow students and public transportation passengers avoid the wait, too. He is developing a program that uses GPS technology installed on buses to track exactly where they are at any given time simply by checking the Internet or a Web-enabled cell phone.

The Cape Fear Public Transportation Authority received a $100,000 grant to install the GPS systems on UNCW shuttle and WAVE busses. Rawls' program can deliver estimated arrival times for a given bus based on its current location.

Albert Ely, director of the Cape Fear Public Transportation Authority, said these tracking tools should be popular with "students at UNCW who would like to get as much sleep as possible. It's obviously a really good tool, especially if you have issues with getting to class on time."

Dick Fauson, UNCW's director of auxiliary services says, "One of the complaints we get from students is that the shuttles aren't able to stay on time, and a lot of it is traffic-related."

Rawls' work has been featured already in the Wilmington Star-News and Mass Transit Magazine.



New Building Offers New Opportunities

After six years of planning and two years of construction, the Computer Information Systems (CIS) building was ready for occupancy in January 2007.

The building represents a coming together of two diverse departments: the Department of Computer Science (CSC) in the College of Arts and Sciences and the Department of Information Systems and Operations Management (ISOM) in the Cameron School of Business. The two departments have launched a unique, visionary and interdisciplinary graduate program that began in the fall of 2005.

The state-of-the-art CIS Building has many impressive features such as a centralized, information distribution area with five flat-panel, programmable, plasma screens which can broadcast anything from upcoming internal events to late-breaking global news; multidisciplinary, hands-on laboratories; dynamically re-configurable research and instructional spaces; student "sandboxes" to facilitate team-based collaborative learning; a hands-on exploration laboratory showcasing emerging technologies; a highly-visible and eye-catching electronic trading room; net-centric computing (interconnected and organized around the Internet); a mobile computing environment; and high-speed, wireless connectivity throughout. The new building has already hosted events such as Interact Technology Showcase, sponsored by UNCW's Information Systems Technology Division, where faculty, students and vendors exhibited the latest technologies that facilitate teaching and learning. The entire UNCW campus, local high school students and other special visitors were the invited guests. There was even a special Interact session for North Carolina legislators!

New digital arts minor available for all majors beginning fall 2007!

Awesome Alumni

Howard Luckenbaugh '99 was in Australia with IBM doing all the scoring and Web hosting for the Australian Open. http://www.australianopen.com.

He reports that there is a new technology they are introducing this year called Hawkeye which does all the instant replays on the courts. They also do IBM real-time scoreboards.

Sherri Sisler Elms '01 writes "I have been working at Labcorp, Burlington, N.C., for four years this September. I started in a Cobol programming position and transferred to senior test data administrator after a year. I am now a mainframe & SQL server DBA. I still use my programming skills everyday to automate tedious mainframe DB2 maintenance. **Karen Collins** '02 is also here at Labcorp working with some exciting Java development. It's great to work with someone else from UNCW. I am happily married with a 10-month-old daughter! She keeps her father and me very busy. She is my greatest accomplishment since graduation!"

When **Carla Hunt** '99 enrolled in the grid computing class at UNCW in fall 2004, she probably did not realize it would take her all the way to Tokyo, Japan. After taking that class and working on the Grid Project (funded by the UNC Office of the President), Carla was hired by MCNC in the Research Triangle Park, where she has been working on the EnLIGHTened Computing Project. "The focus of the Enlightened Computing project is on developing dynamic, adaptive, coordinated and optimized use of networks connecting geographically distributed high-end computing resources and scientific instrumentation." (http://www.enlightenedcomputing.org/) In other words, the goal is to extend the control of the network and resources to software applications through what is called the optical control plane. The optical control plane controls the establishment, maintenance and release of connections in an optical network as well as the scheduling algorithms. MCNC teamed up with the G-Lambda group in Japan to demonstrate the new technology at the Global Lambda Integrated Facility (GLIF) annual Global LambdaGrid Workshop in Tokyo, Japan in September 2006. The two groups demonstrated "automated" interoperability between network and computing resources in two national grid computing research test beds. For the first time, a software application in a research test bed in one country was able to reserve, manage and monitor computing and network resources across both countries – a key milestone toward the development of a Global Grid of networked, interoperable resources, which some believe

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Upsilon Pi Epsilon

International Honor Society for the Computing and Information Disciplines

Five students were inducted into Upsilon Pi Epsilon on April 30. The traditional ceremony was held in the Masonboro Island room of the Herbert and Sylvia Fisher Student Center. Following the ceremony, initiates and their guests were honored with a reception.

Congratulations to **Anthony Habash, Amy Curley, Eric Howell, Christopher Tripp and Brett Buddin** all pictured at right.

Summer Robotics Camp: A Resounding Success

Due to the overwhelming response from the 2006 UNCW Robotics Camp, the CSC department filled two sessions for this year's Training Mission Summer Camp. Last summer, 16 middle school students explored the fundamentals of robotics. Chancellor RosemaryDePaolo even stopped by to see their great work and to praise the results. This year, thanks to an ITSD grant, the department purchased 16 new Lego Mindstorms NXT robots with a 32-bit processor and several sensors including ultrasonic, light, touch and rotation. With the guidance of department faculty, graduate and undergraduate students, the campers created functioning robots that explored their environment. Student mentors were paid but received much more from the campers' positive feedback. Alumni will have a chance to program with these newest robots in the fall during College Day. This summer's Training Mission had several sponsored campers. If you are interested in sponsoring a camper for summer 2008, please contact one of the faculty organizers: Jack Tompkins, Gene Tagliarini or Sridhar Narayan. See http://www.uncw.edu/csc/robotics/ for details.

CSC and ISOM Congratulate Groundbreaking Graduates!

The Department of Computer Science (CSC) in the College of Arts and Sciences and the Department of Information Systems and Operations Management (ISOM) in the Cameron School of Business celebrated the first graduates of their joint program: Master of Computer Science and Information Systems.

The new program began in fall 2005 but was many years in the making. **Eric Harris** (pictured near right) plans to continue work on a phase II government SBIR contract with Lexxle Inc. while seeking permanent employment with various companies in the Wilmington or Triangle areas. He hopes to find a job in software application or development.

Ryan Wilkins (pictured far right) was hired by PPD in Wilmington as a biostatistics programmer (writing programs to display clinical data in a required form).

Chris Holtsford (not pictured) plans to travel to Texas, California and Chicago while he "scopes out great jobs." He hopes to pursue the development of web based applications in the C#/.NET framework. Congratulations to you all!

Job Prospects Look Good According to *Money Magazine*

Money Magazine indicates that SQL database administrators and .NET and Java developers are in very high demand. One article gives salary ranges of $100,000 and up in major cities and between $75,000 and $85,000 for regions such as Des Moines: http://money.cnn.com/galleries/2007/news/0702/gallery.jobs_in_demand/6.html

Another article lists the Top 10 Best Jobs in America. Number 1 is software engineer and number 7 is computer/IT analyst. The percentage growth for software engineers is expected to be 46 percent in the coming 10 years. The average pay isn't bad either: $80,427:

http://money.cnn.com/popups/2006/pf/salary_secrets/5.html

Faculty Focus (continued from page 2)

Marni Ferner and **Laurie Patterson** received an ITSD grant for "Using Alice to Introduce Programming to Female Students."

Ron Vetter and **Laurie Patterson** received a CTE Summer Pedagogy Development Award for "The Application of Blogs, RSS Feeds, and Podcasts to Online Instruction and Curriculum Development." They also received an ITSD Innovation Award for "Investigating Innovative Applications of Blogs and Podcasts in University Environments."

Clayton Ferner and graduate student **P. Jerry Martin** had the paper, "Suppressing Independent Loops in Packing/Unpacking Loop Nest to Reduce Message Size for Message-Passing Code," accepted for publication in *PDPTA'07- The 2007 International Conference on Parallel and Distributed Processing Techniques and Applications* (as part of WorldComp '07).

Clayton Ferner also published "Revisiting communication code generation algorithms for message-passing systems," in the *International Journal of Parallel, Emergent and Distributed Systems (JPEDS).*

Curry Guinn made two academic presentations at the IASTED Conference on Computational Intelligence, San Francisco: "A Comparison of Hand-Crafter Semantic Grammars Versus Statistical Natural Language parsing in Domain-Specific Voice Transcription" and "Augmented Transition Networks (ATNs) for dialog Control: A Longitudinal Study."

During 2007, **Curry Guinn** is working on an innovative distributed intelligent agent system with Ed Addison of Lexxle Inc. This work is funded by the U.S. Air Force through the Small Business Innovation Research program. One UNCW undergraduate student, Brian Bullard, and recent UNCW graduate, Rose Rahiminejad, are collaborating with Guinn as they explore research in membrane computing.

David Berman will submit, "Brother Avoiding Round Robin Doubles Tournaments II" with M. Greig, and D. Smith.

Sridhar Narayan, with C. Heinrich, R. Kuiper received the Richard Corbett Scholars Award in the amount of $7,000 for "Using PDA Technology to Improve Adherence to Medical Regimens: A Pilot Study With Well Adults in Southeastern North Carolina."

At the end of the spring 2007 semester, the department bid farewell to **Tom Hudson** after he and his family decided to pursue new opportunities in Raleigh, N.C. Thanks, Tom, for your service these past six years!

CSC Department Fields 3 Teams for ACM Programming Competition

As expected, the teams from UNCW Computer Science Department performed well at the regional ACM programming competition. The competition took place at Duke University. Three teams were fielded, up from one team last year, for this annual competition. The department is proud of its team members and hope that more of our talented CS'ers will take part in this event next year.

Team 1 members, (pictured below): Matthew Singletary, Shawn Chivers and Christopher Watford.

Team 2 members (pictured above): Chance Carroll, Brett Buddin and Patricia Best. Team 3 members (pictured below): Eric Howell, Brian Bullard and Brent Kleinert.

2007 Award Recipients

(Pictured below with Fletcher Norris)

David Bristol Scholarship – Camilo Alvarez

Fletcher Norris Scholarship – Justin Thompson

Chair's Scholarship – Jaewoong Kim

Bookstore Scholarship - Kyle Holt and William Peeden

Student Showcase continued from page 2

Now an alumna, **Amy Curley** '07, completed an impressive honors project that "explores the definition of biometric authentication and the technological options applicable to mobile devices; including fingerprinting, facial recognition, iris scanning, speaker verification, keystroke analysis and signature analysis." Amy was hired prior to graduating in May. She will be joining the Information Management Leadership Program (IMLP) at GE Infrastructure. She will be starting at GE Energy HQ in Atlanta, but the program involves reassignment every six months to a new location and area of the business. It's a two-year program so its four rotations in all. She says, "I'm hoping to have at least one placement internationally and then maybe come back here to Wilmington to do a rotation at GE Nuclear if I can."

Fellow graduate **Charles White** '07, featured in last year's newsletter, completed his undergraduate thesis, "Dynamic Tracking of Free-Swimming Whale Groups Using Digital Acoustic Recording Tags." Charlie has received a large fellowship to the University of Rhode Island to work on his Ph.D.

Another new graduate, **Eric Howell** '07, will begin a doctoral program in computer science at Kansas University this fall, where he has been awarded a graduate teaching assistantship with a departmental scholarship.

Awesome Alumni continued from page 3

will lead to the next generation of computing and the Internet. Carla's responsibilities including traveling to Tokyo to work directly with the G-Lambda group during the demonstration.

Carla returned to UNCW twice during the spring '07 semester. She participated in Career Day in January, talking with students about career opportunities at MCNC. She also returned in April to be a guest lecturer in the grid computing class. In the tradition of the grid course, guest lecturers are invited to bring a real world perspective of grid computing to the students. Carla said, "It was an honor to be able to share my experiences with the EnLIGHTened project and MCNC with students. I would not be in my current position with so many exciting and engaging work opportunities without the exceptional education I received at UNCW." Carla had a unique perspective to be able to talk to the students as one who previously attended the CSC program. It was probably the lecture that prompted the most questions from the audience.

Another successful alumnus, **Jonathan Gengler** '02, writes, "I would like to get in touch with the department to extend a hand out to UNCW computer science graduates to try to bring one or two up to Massachusetts to work at my current company, e-Dialog (http://www.e-dialog.com/)."

Congratulations to Our Recent Graduates!

Fall 2006 Graduates

Adam Jennings Anderson, James Wofford Buchanan, Shawn Thomas Chivers, Stephen Michael Eshleman, Jason Christopher Harthcock, Mackey James McDonald, William John Reed, Bryce Elliot Rutherford, Carrie Marie Starr, Zachary Allen Stowell and Sean Eric Watson.

Spring 2007 Graduates

Eric Christopher Harris, Christopher King Holtsford, Ryan Blair Wilkins, Locke Martin Bircher, Brandon Ray Brown, Amy Marie Curley, Adam M Gaweda, Eric Britton Howell, James Hugh Jenkins, Matthew James Knauss, Adam Wayne Lewis, Joseph B Morris, Lewis James Summerlin, Christopher Derrick Tripp and Charles Edward White.

Class of 2007 Bachelor's Degree Candidates

Tech Talk

Trivia: do you know the answers?

1. When was the phrase "Surfing the Web" coined?
2. This device was originally called the x-y position indicator in the 1960s. What do we call it now?
3. Who said, "The most important thing in the programming language is the name. A language will not succeed without a good name. I have recently invented a very good name and now I am looking for a suitable language."
4. What company owns the registered trademark for the term Ethernet?

Trivia answers:

1. 1992 2. A mouse 3. D. E. Knuth, 1967. 4. Xerox

Interesting Web Sites

Do you like gizmos and futuristic gadgets? Check out http://www.gizmodo.com/

Do you need to receive or send reminders? Try this handy website where you can schedule text messages to be delivered at a specific date and time all for free! http://ohdontforget.com/

If you have old VHS, camcorder tapes, photos, slides, or film http://yesvideo.com/ can transfer them to DVD.

You search and search and finally find a relevant article, but they want you to pay a subscription fee. Access 15 premium articles from over 200 sources at http://www.congoo.com/

Calling All Alumni

What are you doing now? Where are you living? Please send us news about yourself so that we may include it in the next newsletter! Professional and personal information is welcome. Send e-mail to mferner@uncw.edu.

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Graduation date:_____ Degree/Major:_____ Spouse UNCW Graduate? Yes/No

Employer: _____ Position _____ Matching Gift Company? Yes/No

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Enclosed is my gift of $_____ for the Computer Science Department Trust Fund (*make checks payable to UNCW)* or

charge my ___Visa or ___Mastercard Number: _____ Expiration Date (mm/yyyy)_____

Name as appears on card: _____

Signature:_____

Return to: Advancement Services, University of North Carolina at Wilmington, 601 South College Road, Wilmington NC 28403

This gift qualifies as a charitable donation. THANK YOU for your consideration and generosity!

News may be attached to this form, e-mailed to alumni@uncw.edu, or submitted electronically at www.uncw.edu/alumni

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