

**Computer and Information Science News October 2005 – April 2006**  
**Spring 2006 Engineering Advisory Board Meeting**  
**Updated 29 April 2006 (Version 10)**

Dr. Steven Schoenly retired in December 2005 after 27.5 years of service to the University. The Department thanks Dr. Schoenly for his years of service to the computer science students and the University community.

Dr. Guangbin Fan also left at the end of the Fall 2005 semester to assume a research position with Intel Corporation in China. We thank Dr. Fan for his 2.5 years of service in the Department.

The Department hired December 2005 MS graduate Hubbard Young as a temporary instructor for the Spring semester and summer to assist with the undergraduate teaching. He is teaching sections of CSCI 112 (Computer Science II) and CSCI 475 (Database Systems).

Anthony Nocentino joined the staff in January as the new Network Administrator (replacing Ben Pharr who left in September 2005). Nocentino has several years of related experience with firms in the Chicago area. He will also be pursuing graduate degrees in computer science.

Jacqueline Reynolds, Administrative Secretary, went to part-time employment in early February so she could expand her time spent managing the Oxford Equine Center and pursuing an MA in English.

Karen Lovett, who has several years of work experience on campus, assumed the position of Administrative Secretary beginning 20 March.

Dr. Jianping Wang has agreed to join the faculty in Fall 2006. Dr. Wang earned a PhD in computer science in 2003 at the University of Texas at Dallas and has BS and MS degrees in computer science from Nankai University in China. For the past three years, Wang has been a faculty member at Georgia Southern University. She is Principal Investigator (with Co-PI Dr. Jason Jue of the University of Texas at Dallas) on a three-year, \$400,000 NSF grant titled “NeTS-NR: Collaborative Research: Multi-layer Dual-Homing Survivability for the Next-Generation Internet”. She will transfer the final year of this grant to Ole Miss.

The Department has an ongoing search to fill the second faculty vacancy.

The Chancellor recently announced that Dr. Conrad Cunningham will be promoted to full Professor effective in July.

Dr. Philip Rhodes was awarded a three-year, \$300,000 NSF grant titled “Iterator-Aware Prefetching for Remote and Grid Computing Applications” which is expected to start in the summer. PhD students Sridhar Ramakrishnan and Baoqiang Yan will be working with Rhodes on this project.

Dr. Pamela Lawhead recently participated in the ACM SIGCSE 2006 Technical Symposium on Computer Science Education as a member of the conference program committee. The conference was held in Houston, Texas, in February. In June, she also will present a paper in Bologna, Italy, at the Eleventh Annual Conference on Innovation and Technology in Computer Science Education, another SIGCSE-related conference.

Dr. Conrad Cunningham is a member of the program committee of the 2006 International Conference on the Principles and Practice of Programming in Java (PPPJ), which will be held 30 August through 1 September in Mannheim, Germany. (Summer 2005 PhD graduate Yi Liu is also a member of this program committee.)

Dr. Philip Rhodes is on the program committee for the Second Annual Conference on e-Science and Grid Computing to be held in Amsterdam, the Netherlands, 4-6 December 2006.

On 2 March, Charles Jenkins attended the regional high school science fair in Greenville, Mississippi, to select and present the Ole Miss engineering award.

Dr. Stephen Rice is teaching a new special topics course on pattern recognition in the Spring semester (as an Engr 692 section). Topics include k-nearest neighbors, linear and nonlinear classifiers, decision trees, neural networks, feature selection and invariants, optical character recognition, speech recognition, template matching, Markov models, clustering algorithms, and system evaluation. Students will give project presentations on fingerprint recognition, gesture recognition, handwriting recognition, iris recognition, target recognition in radar images, and motion analysis in video.

Dr. Dawn Wilkins is teaching a new special topics course on scripting languages during the Spring semester (as a CSci 581 section). The class is studying a range of important scripting languages such as Perl, TCL, Bash, and Ruby.

During the Spring semester, Dr. Conrad Cunningham is reviving the course CSci 550 (Program Semantics and Derivation), which has not been taught for eight years. The intention is to renew interest in the formal software engineering methods taught in that class.

Using Adler Endowment and Woods Order funds, the Department purchased 40 new task chairs this spring for the Systems Lab, the Graduate Instructor workspaces, and a few other purposes. These match the 60 task chairs purchased in 2003 for the two Adler Laboratories.

The Department is upgrading the computers in some faculty and staff offices. The Department has recently purchased new Windows computers for the offices of Anthony Nocentino, Dawn Wilkins, Conrad Cunningham, and Pamela Lawhead.

The systems staff is making changes to the way the Department's network and laboratories are administered. It is instituting a new network file backup system, a centralized software management system for the labs, and a network firewall.

The Department seminar series continued in recent months with several speakers from within the University community. However, it has also included a number of distinguished outside speakers.

- On 31 October, Dr. Robert Laramee from Vienna University of Technology in Austria spoke on the topic "Visual Analysis and Exploration of Fluid Flow in a Cooling Jacket".
- On 14 February, Dr. Michael Youngblood from the University of Texas at Arlington spoke on the topic "Deconstructing the First-Person Shooter to Understand Human-Consistency and Transfer Learning to Create Better Artificially Intelligent Players".
- On 24 February, Dr. Jianping Wang visited from Georgia Southern University. She spoke on the topic "Dual-Homing Survivability for the Next Generation Internet".
- On 27 February, Dr. Yixin Chen from the University of New Orleans presented a seminar on the topic "Multiple-Instance Learning via Embedded Instance Selection".

- On 1 March, Dr. George Nagy visited the Department and presented a seminar on “Visible Models for Interactive Pattern Recognition”. Dr. Nagy is an IEEE Fellow and Professor of Electrical, Computer, and Systems Engineering at Rensselaer Polytechnic Institute in Troy, New York.
- On 6 March, Dr. Michael Scherger from Kent State University made a presentation on the topic “Interfacing Massively Parallel Associative Computers for Database Applications”.
- On 5 April, Dr. Robert Laramee again visited the Department and spoke on the topic “Advanced Flow Visualization Techniques for Simulation Data”.
- On 12 April, Jianxia (Jane) Xue, a PhD student in Electrical Engineering at the University of California at Los Angeles, spoke on the topic “Acoustically-driven Visual Speech Animation Using Dynamic Bayesian Networks”.
- On 19 April, Ben Stephenson, a PhD student in Computer Science at the University of Western Ontario, spoke on the topic “Optimizing the Java Virtual Machine Instruction Set by Despecialization and Multicode Substitution.”

The Department selected the following students for the 2006 Student Achievement Awards: Austin Trey Harrison (Freshman), Brent Roth (Sophomore), Scott Blackburn (Junior), and Trent Sigler (Senior). The Department also selected Matthew Kooshad for the Richard E. Grove Award for service.

The faculty selected undergraduate students Scott Blackburn and Andy Anderson for the SAP Scholarship for Fall 2006. Each will receive \$500.

Twelve graduate and six undergraduate students were invited to join the Gamma Chapter of Upsilon Pi Epsilon, the national computer science honor society, at the 19 April induction ceremony. The undergraduate students are Andy Anderson, Scott Blackburn, Courtney Humphries, Shelton Liddell, Sandeep Prasai, and Trent Sigler. The graduate students are Prasad Choudhari, Lin Dou, Cindrell Harry, Sireesha Kurapati, Xuming Lu, Madhuri Malepati, Lahari Odapally, Kalyan Panchumarthi, Derek Park, Navanath Prabhudessai, Anshul Saxena, and Baoqiang Yan. Officer nominees for 2006-2007 are Scott Blackburn (President), Trent Sigler (Vice-President) and Baoqiang Yan (Secretary-Treasurer).

Two three-person student programming teams coached by Dr. Stephen Rice represented Ole Miss at the 2005 ACM Mid-Central USA Programming Contest held at Arkansas State University on 5 November. Two teams competed again on 31 March at the Consortium of Computing Sciences in Colleges (CCSC) Mid-South Conference at Christian Brothers University in Memphis. The students participating in one or both of these contests included James Church, Trent Sigler, Josh Hovey, Matt Kooshad, Jonah Taylor, Manish Shtapit, James Gronseth, and Robby Ng.

MS student Anshul Saxena and recent MS graduate Navanath Prabhudessai were inducted into the Honor Society of Phi Kappa Phi during the spring induction ceremony on 6 April.

PhD student Wei Liu was awarded a Graduate School Dissertation Fellowship to enable him to focus on completion of his dissertation during Spring 2006.

Google, Inc. selected PhD student Susan Lukose and MS student Cindrell Harry for all-expense-paid trips to attend the First Google Workshop for Women Engineers in Mountain View, California, in January. Of the 500 students who applied, only 180 were accepted. The purpose of this workshop was “to promote and identify technical research aptitude in women, to encourage the increase [of] female representation in

science and engineering,” and, of course, to attract talented women to work for Google. The program included seminars on various Google technologies and opportunities to meet Google engineers.

PhD student Yuanyuan Ding won the award for the best student presentation at the MidSouth Computational Biology and Bioinformatics Society (McBIOS) Conference in March. Her presentation was titled “Improving the Performance of SVM-RFE to Select Relevant Genes in Microarray Data”.

The Department faculty decided to give its first award for “Exemplary Service by a Graduate Student” to MS student Cindrell Harry. The faculty wanted to recognize Ms. Harry’s diligent work on the faculty search committee this year and in other ways while a graduate student in the Department.

### **Institute for Advanced Education in Geospatial Sciences (IAEGS) News October 2005 – April 2006**

IAEGS, under the direction of Dr. Pamela Lawhead, was awarded a NASA grant for \$400,000 to continue the work of geospatial course creation and delivery. This grant will allow the creation of course exercise booklets to accompany the twenty-eight online courses created during the past three and one-half years.

In March, IAEGS and Digital Quest, Inc. entered into a Memorandum of Understanding to collaborate on the development, marketing, and distribution of online Geographical Information Systems (GIS) and Remote Sensing courses.

IAEGS has also partnered with the University of Connecticut and NASA DEVELOP to offer courses both at Connecticut and to students in the DEVELOP program.

IAEGS recently signed an agreement with the Kentucky Geographic Division of the Commonwealth Office of Technology. In the agreement IAEGS courses will be offered to community colleges, colleges and universities throughout Kentucky.

As noted above, Dr. Pamela Lawhead, Director of IAEGS, remains active in professional conferences and activities related to computer science education.

Also, as noted above, PhD student Susan Lukose and MS student Cindrell Harry attended the First Google Workshop for Women Engineers in January. Both students are members of the IAEGS team. Susan serves as chief of the programming team and Cindrell works both as a programmer and as Webmaster for the group.