

Computer and Information Science News April-October 2006
Fall 2006 Engineering Advisory Board Meeting
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Dr. Yixin Chen joined the computer science faculty as an Assistant Professor in August 2006. Chen's research interests include machine learning, data mining, biomedical informatics, artificial intelligence, computer vision, and robotics and control. He received a BS degree in automatic control from Beijing Polytechnic University in 1995, an MS degree in control theory and applications from Tsinghua University in 1998, MS and PhD degrees in electrical engineering from the University of Wyoming in 1999 and 2001, respectively, and a PhD degree in computer science from Pennsylvania State University in 2003. Before joining Ole Miss, Chen was a computer science faculty member at the University of New Orleans.

Dr. Chen is serving as Associate Editor of the journal *Pattern Recognition* for a two-year term beginning in September. He is also Vice Chair for the 8th ACM SIGMM International Workshop on Multimedia Information Retrieval (MIR 2006) and a program committee member for the 18th IEEE International Conference on Tools with Artificial Intelligence (ICTAI 2006), the 5th IEEE International Conference on Machine Learning and Applications (ICMLA 2006), and the IEEE International Conference on Data Mining (ICDM 2006).

Dr. Jianping Wang joined the computer science faculty as an Assistant Professor in August 2006. Wang's research interests include optical networks, wireless sensor and mesh networks, multicasting, and network fault tolerance. She obtained BSc and MSc degrees in computer science from Nankai University in 1996 and 1999, respectively, and a PhD degree in computer science from the University of Texas at Dallas in 2003. For the past three years, Wang was a computer science faculty member at Georgia Southern University.

Dr. Wang 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 transferred the final year of this grant to Ole Miss from Georgia Southern. PhD student Nan Yang is working with Wang on this project.

Unfortunately, Dr. Wang will not be at Ole Miss long. She has resigned to take a faculty position in Hong Kong near her husband. She will be on unpaid leave for the January-July 2007 period to complete the research for her NSF grant.

We have started a search with a goal of having a replacement for Dr. Wang by August 2007. The search committee is co-chaired by Dr. Dawn Wilkins and Dr. Philip Rhodes and includes Dr. Tobin Maginnis, Dr. Pamela Lawhead, Dr. Stephen Rice, Dr. Yixin Chen, Cynthia Zickos, Charles Jenkins, and Breneria Travis. Ms. Travis is a graduate student; the others are Department faculty members.

Dr. Conrad Cunningham, who has served as Department Chair since May 2001, was reappointed to the position for a second five-year term beginning in July 2006. Cunningham was also promoted to full Professor beginning at that time.

Dr. Cunningham has been asked to serve on the program committee for the next International Conference on the Principles and Practice of Programming in Java (PPPJ), which is being planned for Lisbon, Portugal, in 2007.

In May, Dr. Philip Rhodes began a research project funded by a three-year, \$300,000 NSF grant titled "Iterator-Aware Prefetching for Remote and Grid Computing Applications." PhD student Baoqiang Yan is working with Rhodes on this project.

Dr. Stephen Rice's exhibit "Frequency-Based Coloring of the Audio Waveform Display" won Second Place in the Gallery of Acoustics Exhibition at the Meeting of the Acoustical Society of America in Providence in June 2006.

Dr. Dawn Wilkins is the School of Engineering representative on the University's Graduate Council. She also serves as the Department's Graduate Coordinator.

In summer and fall 2006, instructor Charles M. Jenkins, PE, wrote a textbook for the revised content of CSci 251 (Programming for Engineering and Sciences) that covers both the traditional Fortran programming language and the Mathematica symbolic mathematics tool. No appropriate single textbook existed for this course content adopted last year.

During the past six months three PhD students passed their prospectus defenses: Sridhar Ramakrishnan under the direction of Dr. Rhodes in April, Pallavi Tadepalli under the direction of Dr. Cunningham in July, and Yuanyuan Ding under the direction of Dr. Wilkins in July.

We recently selected Senior undergraduate Scott Blackburn and MS student James Church to receive the \$500 scholarships sponsored by SAP for spring 2007. Junior Brent Roth is the alternate recipient if either is unable to accept.

The Department's student organizations have recently elected officers for this year. The ACM student chapter officers are Matt Kooshad (President), Sufian Ahmad (Vice-President), Brent Roth (Secretary), and James Church (Webmaster). Dr. Wilkins is the faculty advisor.

The Upsilon Pi Epsilon (UPE) Honor Society officers for this year elected last spring are Scott Blackburn (President), Trent Sigler (Vice President), and Baoqiang Yan (Secretary). Ms. Zickos is the faculty advisor.

The local student programming contest was organized by Dr. Stephen Rice and held by Rice and Dr. Yixin Chen on 25 September. There were 13 contestants. From among the eligible participants, Rice formed a three member programming team consisting of undergraduate students Courtney Humphries, Jason Boyd, and David Thigpen that will compete in the ACM Southeast Regional contest in Mobile in November and perhaps at other contests in the spring.

With reviving revenues from the Adler Endowment, the Department revived the Adler Lecture for fall 2006. Internationally known software engineering ethics expert Dr. Donald Gotterbarn, Director of the Software Engineering Ethics Research Institute at East Tennessee State University, spoke on the topic of "Privacy and Virtual Information" on 12 October at 7:00 p.m. in Anderson Auditorium. He also spoke on 13 October to the CSci 300 Social Responsibility and the Engineering Leadership classes.

Other computer science seminar speakers for the Fall semester included recent MS graduate and Global Technical System staff member Derek Park, PhD student Baoqiang Yan, MS student James Church, and Dr. Conrad Cunningham. Scheduled presenters for fall include Dr. T.J. Jankun-Kelly (Mississippi State University), Dr. David King-Ip Lin (University of Memphis), Dr. Dawn Wilkins, Derek Gibbs (Chief Technical Architect at SmartSynch), Dr. Kathy Gates (Office of Information Technology), Errol Sayre (Network Administrator for the Office of Research and Sponsored Programs), and perhaps others. The Jankun-Kelly and Lin seminars are part of speaker exchange arrangements we have with Mississippi State and Memphis. Dawn Wilkins will speak at Mississippi State this fall and a talk at Memphis will be arranged for the spring semester.

Graduate special topics courses being offered in the Fall 2006 semester include Advanced Networks (CSci 582) by Jianping Wang, Machine Learning (Engr 691/2) by Yixin Chen, Computer Simulation (CSci 581)

by Stephen Rice, Scientific Data (Engr 691) by Philip Rhodes, and Ruby and Software Development (Engr 692) by Conrad Cunningham. Other graduate courses include Analysis of Algorithms (CSci 533) taught by Dawn Wilkins and Computer Networks I (CSci 561) taught by Tobin Maginnis. In summer 2006, Wilkins also taught a special topics course in Data Mining (CSCI 582).

At the undergraduate level, Dr. Pamela Lawhead is teaching an experimental version of the CSci 103 (Survey of Computing) course that uses the Alice 3D programming system from Carnegie-Mellon University. This system features programming in the form of creating stories and animations in the “fun” graphical environment of the Alice system. This section was aimed at increasing the enrollment of computer science majors.

In the Fall 2006 semester we are offering the elective course CSci 323 (Systems Programming) after a several year break. The course, which focuses on the open-source Linux operating system platform, is being taught in the evening by Ben Pharr, the Department’s former Network Administrator who now works for Global Technical Systems. Although added late, the section reached its defined limit of 24 students.

The Department is continuing its tutoring sessions for CSci 111, 112, and 211 this semester with PhD student Mei Zhang and Junior Brent Roth assigned as tutors.

The Department faculty held its first pre-semester planning conference on 15 August. In this half-day planning session, the faculty discussed curricular issues and plans for the academic year. The Department’s Undergraduate and Graduate committees have continued working on issues related to program assessment (for both the SACS and ABET assessments) and needed curricular changes.

The Department’s committees are actively at work revising the Department’s program objectives, procedures, and assessment techniques. The Graduate Committee is chaired by Dr. Dawn Wilkins and includes Dr. Philip Rhodes and Dr. Yixin Chen. The Undergraduate Committee is chaired by Dr. Stephen Rice and includes Dr. Pamela Lawhead, Dr. Jianping Wang, Cynthia Zickos, and Charles Jenkins. Dr. Conrad Cunningham serves as an ex officio member of both committees.

Dr Tobin Maginnis chairs the Department’s Equipment Committee. Other members include Dr. Conrad Cunningham, Dr. Jianping Wang, and Anthony Nocentino, Network Administrator.

In summer 2006, we purchased two Dell servers (dual 3.0 GHz processors) with large main memories and disks. One is a Linux server for student and faculty use and the other supports various network operations.

In summer, we also purchased six Dell computers for the offices of Jianping Wang, Yixin Chen, Charles Jenkins, Karen Lovett, and two Graduate Instructors and purchased a Dell laptop and an HP 1320n laserprinter for the use of each of the new faculty members Chen and Wang.

In recent months, the Department, led by Network Administrator Anthony Nocentino, has made procedural and software changes to increase security, fault tolerance, and convenience of our network operations. These include instituting a network file backup system, a centralized software management system for the labs, a network firewall, a new domain name server, and a unified login system.

In summer 2006, we also purchased three white marker boards for office areas, two bulletin boards for the hallways, fourteen two-drawer filing cabinets for the graduate student office areas, and a lateral filing cabinet for the Department office.

An alumnus has recently pledged a gift of \$25,000 over the next five years to improve the Department’s facilities. This should enable the Department to make several improvements.