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CACS Welcomes New Faculty...

Five new faculty who joined CACS have brought with them depth and growth in several emerging technologies; Wireless Communication, Visualization, and Embedded Systems.... (cont.)

CMPS Hosts Another Successful Programming Contest...

The 17th Annual Louisiana Computer Programming Classic (LCPC) brought more than one hundred high school students from all over the state. It was another chapter in excellence that has been continuing for 17 years.... (cont.)
CACS Faculty & Staff
Magdy A. Bayoumi, Director and Professor
Christoph Borst, Assistant Professor
Rochelle Brasseaux, Administrative Secretary
Charles Cavanaugh, Assistant Professor
Chee-Hung Henry Chu, Associate Professor
Mihai Ciocoiu, Assistant Professor
Subrata Dasgupta, Eminent Scholar Chair in CS
William R. Edwards, Jr., Associate Professor
Kemal Efe, Associate Professor
Gui-Liang Feng, Associate Professor
Nancy Franks, Administrative Secretary
Arun Lakhotia, Associate Professor
Patrick Landry, Senior System Administrator
Rasiah Loganantharaj, Associate Professor
Anthony S. Maida, Associate Professor
Dmitri Perkins, Assistant Professor
Cathy Pomier, University Administrative Specialist
Vijay V. Raghavan, Distinguished Professor
T.R.N. Rao, Z.L. Loflin Chair Professor
Gunasekaran Seetharaman, Associate Professor
Loc Stewart, System Administrator
Nian-Feng Tzeng, Professor
Hongyi Wu, Assistant Professor
Jongpil Yoon, Assistant Professor

Research Faculty
Ryan Benton, Research Scientist
Ashok Kumar, Research Scientist
Biren Shah, Research Scientist
Prabhat Singh, Software Engineer
Andrew Walenstein, Research Scientist
Zonghuan Wu, Research Scientist

CMPS Faculty & Staff
Magdy A. Bayoumi, Department Head
Thomas Cousins, Visiting Associate Professor
Frank Ducrest, Instructor and System Administrator
Jim Etheredge, Assistant Professor
Nona Etheredge, Instructor and Coordinator
Parvin Hashemian, Assistant Professor
Ramesh Kolluru, Assistant Professor
Andrew Lee, Assistant Professor
Cara Leger, Secretary
Mark Radle, Assistant Professor
Beth Wilson, Visiting Assistant Professor
Welcome to
L’Informatique

Dear Friends,

It is my pleasure to introduce the first issue of our revived newsletter, L’Informatique. It was first published in 1987 for one year, then replaced by our annual report. Our plan is to publish both items. The newsletter will be published twice a year for timely news items and short reports; and the annual report will be published biannually for a comprehensive report covering both CACS and CMPS Department.

Several exciting events took place in both departments last year which has created an optimistic and energetic atmosphere. CACS saw a considerable growth in its faculty. Five new faculty joined the rank: Drs. Christoph Borst, Charles Cavanaugh, Mihai Ciocoiu, Dmitri Perkins, and Hongyi Wu. With this infusion of new faculty, we have been able to establish (and plan for) new research laboratories and courses (undergraduate and graduate) in critical technologies, such as wireless communications, embedded systems, and visualization.

CACS has achieved another milestone and was ranked in the top 50 computer science and engineering programs in the nation by the National Science Foundation. The ranking was based on research productivity (1996-1999), as measured by expenditures on externally funded projects.

The Computer Science Department had another very successful accreditation. Our department was one of the first departments in the nation to become accredited. The significance of this round is based on the recently developed EC 2000 criteria of the Accreditation Board of Engineering and Technology (ABET). It provides many assessment tools for evaluating the quality of curriculum, courses, instruction, and graduates.

The vibrant environment at Computer Science overwhelmed the 17th annual Louisiana Computer Programming Classic (LCPC), where over one hundred high school students, from 14 high schools (including home schools), participated in this exciting event. The 2003 LCPC success was another chapter of the excellent tradition in Computer Science.

The high energy level at CACS and CMPS is challenging. I have to work out to keep up with such dynamics. L’Informatique will highlight the recent achievements of our students and faculty. I invite all of our alumni, friends and colleagues to join us in our exciting journey.

Sincerely,
Magdy Bayoumi
CACS has welcomed one of the most colorful classes of new faculty. With personal interests ranging from guitar playing in a rock band to hiking trails and mountains, five new faculty have brought their personal and professional experiences to CACS. They have made our CACS family richer and more interesting. They come from homelands as near as Tyler, Texas and as far as Chengdu, China. It is my pleasure to introduce these interesting faculty to you.

Dr. Christoph Borst joined the CACS faculty in Spring 2003. His research areas include virtual environments, haptics, and computer graphics. One of the most promising advances for virtual environments is the development of displays that provide a sense of touch during interactions with virtual objects. These displays, called haptic displays, can increase the realism of virtual environments and communicate information that improves user performance or understanding. Applications include touchable user interfaces such as virtual controls. A technique combining sensations from a portable forcefeedback glove with sensations of direct contact with passive objects in the user’s workspace overcomes some limitations of the individual approaches and can improve the effectiveness of virtual environments for training and other applications.

For fun, Christoph enjoys activities including playing the guitar. My interest in computers was first sparked by my family’s purchase of a TRS80 ‘CoCo I’ computer in the early 1980s. I was quickly motivated by the creative aspects of programming, the challenges of solving the problems I encountered, and by a desire to understand the underlying mechanisms. Years later, as a teenager, I was exposed to some of the eminal books on fractals and wrote many programs to duplicate the types of images they presented. In this way, I became aware of the potential for computer graphics to enhance scientific exploration and communication, and of the ability of mathematics to generate stunning visual effects. When I find some free time, I like to play guitar and drums. Prior to moving to Louisiana, I performed original music with various bands in Texas.

- B.S., Computer Science, The University of Texas at Austin, 1993
- Ph.D., Computer Science, Texas A & M University, 2002
**Dr. Charles Cavanaugh** joined CACS in Fall 2002. His research interests lie in the areas of distributed realtime systems and embedded systems. The purpose of this research is to develop technology to maintain quality of service in secure and reliable distributed realtime computer systems. The research involves investigating ways of improving the performance, fault tolerance, and security of an air traffic control system while developing a unique sensing and visualization testbed for air traffic control and other command and control computing applications. Applications include defense, industrial, and consumer domains, ranging from antiaircraft warfare and air traffic control, to robotics and traffic and automotive safety.

Charles’s honors and achievements include membership in Tau Beta Pi Engineering Honor Society, Alpha Chi National College Honor Society, and Kappa Delta Pi International Honor Society in Education, presidential scholarships to Tyler Junior College and The University of Texas at Tyler, and listing in Who’s Who in America and Who’s Who Among Students in American Colleges and Universities. Dr. Cavanaugh has served as a referee for several publications, including *IEEE Transactions on Computers*, *Transactions on Software Engineering*, *Computer*, and a three volume book on software architectures, components and frameworks. He is a member of the IEEE Computer Society and the ACM. For recreation, Charles enjoys activities including computers, electronics, biking, fishing, piano, drums, and singing.

As a single person, I find Lafayette to be a fun place to live, with plenty of places to eat spicy Cajun food and a lot of friendly people, making easier my move from my home state of Texas, where we had a lot of friendly people and spicy TexMex food. Also, I am getting into activities that use my hobbies, such as singing in the choir, and look forward to establishing other ties with the community in the future. My hobby in computers started with home computers, including Texas Instruments, Commodore, Amiga, and IBM; interest in embedded systems was sparked by my enjoyment of looking inside and reading about devices such as Speak’n’spell and video games to figure out how they worked. Looking at their processors and schematics, I would build my own electronic circuits using things from electronic stores and connecting them to the computer, such as connecting a RC car to a Commodore and driving it using a joystick or automatically using a customized control program.
Dr. Mihai Ciocoiu came aboard the Center in Spring 2002. He is involved in research in Artificial Intelligence. His main research focus is on knowledge representation and knowledge translation, in particular on the problem of automatically generating efficient translators between pairs of declarative languages, based on their ontologies. His recent results include a new kind of semantics for declarative languages, called OntologyBased Semantics, that can be used for reasoning about knowledge translation in a multilanguage environment, and a methodology for automatically generating concept/relation level translators based on the notion of Translation as Approximation.

Translation as Approximation is an approach to translation in which the ontologies of the languages we’re translating among are described by terminological axioms in a Description Logic, and translation is done as approximation at the concept/relation level. In this setting, at translator generation time concepts of one language are approximated by concept expressions of the second, and the procedure takes advantage of the relatively cheap subsumption operation available for various Description Logics. At translation time, sentences of the first language are translated to sentences of the second based on the computed concept approximations by applying a fixed set of rules, which leads to very efficient translators.

The first time I saw a computer was when I was still in grade school and a friend of mine had a ‘magic’ machine, a Sinclair ZX81. I borrowed the instruction manual from my friend. He would not part with the computer itself, ‘his prrrecious’ and devoured it in a day. After that, I started writing programs (mostly games) with pencil on paper, and when we met he would bring ‘his precious’ and we would type in and play the games I had written. Those were the days! I loved it so much, that I decided to apply to the informatics high school in Bucharest. There is where I learned to write software for every machine they had, using many weird languages. I would punch cards in Assiris, the assembly language of an Iris mainframe (no, I’m not *that* old, it’s just what they had during my freshman year there), and I had drawers full of my Fortran and Cobol cards for that mainframe. I learned Pascal and C for programming a PDP ‘minicomputer’ … what an euphemism! and was able to write a boot loader for the M18 (an old Z80 based machine) using the binary front switches only! I later started working on PC’s and Mac’s, learned Prolog, Lisp and Smalltalk, and fell in love with AI, but that’s a longer story. Since moving to Lafayette I have enjoyed the friendliness and hospitality of the people, their “Laissez le bon temps ruler” spirit which reminds me of the people in my home country, Romania.

- B.S., Computer Science, Polytechnic University, Bucharest, 1995
- M.S., Computer Science, Polytechnic University, Bucharest, 1996
- Ph.D., Computer Science, University of Maryland, College Park, 2001
Dr. Dmitri Perkins came to CACS in Fall 2002. Dr. Perkins’s research is primarily concerned with the design and evaluation of a routing framework for improving Quality of Service (QoS) support in mobile ad hoc networks. A mobile ad hoc network is a system of mobile routers (and associated hosts) connected by wireless links. Such networks may operate autonomously or may be connected to the larger Internet. Moreover, the routers are free to move randomly and organize themselves arbitrarily. To realize the practical benefits of the mobile ad hoc networking architecture, numerous design challenges must be resolved. One such challenge involves supporting the specific performance requirements (QoS) of real-time applications. Due to the dynamic and unpredictable nature of ad hoc networks, providing deterministic QoS guarantees does not appear possible. However, probabilistic guarantees may be feasible given the location and signal stability of the nodes used destination pair.

In this work, Perkins introduces a multipath routing framework for improving network layer QoS. The primary goal of the proposed framework is to reduce the excessive packet loss and delay that are caused by route failures and wireless channel effects. To realize this goal, the framework combines packet-level redundancy and a reliability-based multipath routing and path selection scheme. We refer to this framework as QoS aware MultiPath Routing with Packet-level Redundancy (QMR/PR). QMR/PR consists of two functional components: (a) a Reed Solomon (RS) Erasure coding module, and (b) a stability-based routing protocol. This research should provide significant guidance to mobile ad hoc network designers and researchers.

My curiosity in computers, and subsequently computer science, was born during my junior high school days from my interest in algebra and geometry. In particular, I was interested in writing computer programs that could quickly solve fundamental algebra and geometry problems. During winter break of my ninth grade school year, my father purchased my first computer, a Tandy 1000 HX. About two weeks later, I completed my first computer program, which could accept appropriate input from the user and calculate the area of rectangle, triangle or circle. From there, I became intrigued about how the computer actually worked and how it could be used to improve or solve problems in other areas such as education, communication, and medicine.

Since joining CACS, I have found the Acadiana area an unique and enjoyable place to live. The many festivals and food are great, although no one has convinced me to try the crawfish! When I am not working in CACS, I enjoy studying the Bible, spending time with my wife Coretta and daughter Paige, playing golf, performing lawn and garden work, and studying/discussing educational and political issues.

- B.S., Computer Science, Tuskegee University, Tuskegee, AL, 1995
- M.S., Computer Science and Engineering, Michigan State University, East Lansing, MI, 1997
- Ph.D., Computer Science and Engineering, Michigan State University, East Lansing, MI, 2002
Dr. Hongyi Wu joined CACS in Summer 2002. He has a broad range of interests in the field of computer networks and communications. His current research focus is on wireless and mobile networks, including wireless local area networks, mobile ad hoc networks, sensor networks, the third and beyond generation wireless systems, and the integrated heterogeneous networks. Dr. Wu has developed a next generation wireless system called integrated Cellular and Ad hoc Relaying (iCAR), mainly addressing the congestion problem in cellular systems as well as the scalability problem in ad hoc networks. This research has been published in top journals such as IEEE JSAC and ACM MONET, and featured in magazines such as Business Week and Wireless Europe. “Various wireless technologies and systems (such as Cellular System, Satellite System, Wireless Local Area Network, Mobile Ad hoc Network, Bluetooth, Home RF, and Sensor Network) have been developed over the years, and all signs are indicating that many more are yet to come. The emergence of these heterogeneous wireless technologies calls for the ubiquitous and integrated wireless infrastructures to make the communication system robust and efficient,” says Dr. Wu.

Dr. Wu is a member of IEEE and ACM. He serves as the guest editor of ACM/Kluwer Journal on Special Topics in Mobile Networking and Applications (MONET), the Symposium Chair for IEEE Vehicular Technology Conference (VTC) Fall 2003, Integrated Heterogeneous Wireless Networks, and the Session Chair and/or Member of Program Committee of IEEE Wireless Communications and Networking Conference (WCNC 2003), The 2003 International Conference On Parallel Processing (ICPP 2003), The Second International Human Society, Internet Conference, and International Workshop on Wireless Security and Privacy. He has also served as referees for various journals/conferences, such as IEEE Transaction on Mobile Computing, IEEE Transactions on Wireless Communications, IEEE Computer Networks, ACM Wireless Networks, IEEE Infocom, ACM MobiHoc, etc. Dr. Wu received Nokia Research Center Inventor Award in 2002.

When not at work, Dr. Wu enjoys activities such as outdoor photography and traveling, with a wish of traveling around the world, shooting pictures, and publishing a world travel note with his wife. He likes physical exercises, and occasionally plays table tennis with BIG balls. He also enjoys playing with various electronic/computer devices, setting up (and sometimes breaking down) computer networks and wireless communication kits.

- B.S., Scientific Instrument, Zhejiang University, China, 1996
- M.S., Electronic Engineering, SUNY at Buffalo, 2000
- Ph.D., Computer Science and Engineering, SUNY at Buffalo, 2002
CACS has been ranked 46th in a recent NSF survey based on research & development expenditures in the period of 1996 through 1999. Five hundred ninety-seven computer science programs have been included in the survey. The top 11 programs are: John Hopkins, Illinois, Urbana, USC, University of California San Diego, MIT, Georgia Tech, Maryland, UT Austin, Cornell, and Stanford. CACS is with a very good group, e.g. Princeton, University of Florida, Texas A&M.

Dr. Gui Liang Feng was selected as one of this year’s distinguished professors by the UL Lafayette Foundation. Only three professors are selected for this prestigious award every year. The distinguished professors are selected based on their outstanding research achievements. Dr. Feng, an associate professor of computer science at CACS, is very well known nationally and internationally in the area of security and cryptography. He had a major breakthrough in decoding algebraic/geometric codes, for which he was awarded the 1994 IEEE Information Theory Society Paper Award (with Professor T.R.N. Rao). He has been an invited speaker to many conferences and universities.

Dr. Dmitri Perkins, a 1995 Computer Science graduate of Tuskegee University (TU), recently returned to his alma mater as the recipient of the TU ACM/Computer Science Alumni Award for his academic and professional achievements and distinguished Service. Dr. Perkins earned his PhD from Michigan State University in August 2002 and is the first graduate of Tuskegee to have received the PhD in Computer Science. The award was presented at a special ceremony during Homecoming, November 1, 2002. As keynote speaker, Dr. Perkins encouraged students to consider graduate school and offered key insights on how to succeed in graduate school. In particular, he stressed the importance of developing strong math and reasoning skills, proficient and quality writing, and the need to have strong character.
CACS has taken a leading role in the Louisiana Governor’s IT Initiative, an ambitious initiative to stimulate IT research and technology transfer. Four projects are on high gear in CACS; two of them will be highlighted in this issue. The Internet Computing project, led by Dr. Vijay Raghavan, is focused on Commercialization of Technology Transfer of Distributed Heterogeneous Information Systems. The research team includes Dr. Henry Chu and Dr. Jongpil Yoon and three new research faculty: Dr. Ryan Benton, Mr. Biren Shah, and Dr. Zonghuan Wu (details follow).

Our Research Team and Specialties

- **Research team**
  - **Three Faculty Members**
    - Dr. Vijay Raghavan
    - Dr. Henry Chu
    - Dr. Jongpil Yoon
  - **Three Research Scientists**
    - Dr. Ryan Benton
    - Mr. Biren Shah
    - Dr. Zonghuan Wu
  - **More than a dozen graduate students; 50% doing doctoral research.**

- **Covered CS specialists**
  - Data Mining, Data Visualization, Managing XML Collections, Adaptive Information Retrieval, Search and Meta-Search Engines, Concept (Knowledge) Organization and Reuse, and Data Security Risks of Data Mining.

The project aims at developing and applying innovative Information and Knowledge-based solutions to business problems by developing industrial applications, computer-based tool kits, web services, and commercial tools that implement technologies for searching and mining distributed, multimedia information and knowledge resources, corporate data, normal and deep Web sources, and to deliver viable, valuable, reproducible, business solutions providing a high return on investment for industrial, entrepreneurial, and corporate partners, UL Lafayette/CACS, and the communities it serves.
**Dr. Ryan Benton’s** primary research interest is in the field of Machine Learning, with a focus on instance-based learning and metaclassifiers. His major contributions are in InstanceBased Feature Projection Methods, which combine the predictions of M classifiers, each of which makes predictions based upon a single feature of the problem domain. Advantages of these methods over normal instance-based approaches include lower time complexity for prediction and eliminating the curse of dimensionality. Currently, Dr. Benton is working on adaptive retrieval systems with Dr. Raghavan and data driven prognostic systems with Dr. Chu.

**Mr. Biren Shah** received his Master’s in Computer Science in 2001 from University of Louisiana at Lafayette. As a part of his Master’s Thesis, he proposed a new approach to generic, efficient and fully automatic content-based image retrieval using clustering and space transformation. From February 2001 to March 2002, he worked as a Software Engineer at Lucent Technologies. While working fulltime as a Research Scientist at UL Lafayette, he is currently pursuing a Master’s in Business Administration at the same university to strengthen the commercial and business dimension. Most recently, he is dealing with a couple of research problems in Image Quantization and Retrieval, Storage Estimation and Materialized View Selection of MultiDimensional Aggregates in OLAP and Efficient Indexing and Incremental Indexing of SemiStructured Data. His primary areas of interest are Information Retrieval, Data Warehousing, Database Management Systems, Electronic Commerce, and Distributed Programming.

**Dr. Zonghuan Wu’s** primary research interests are in the area of Information Retrieval. His expertise is in Internet-based information retrieval, metasearch engines, multidatabase systems, and Web development. In particular, his recent focus is on researching and developing technologies for building Very Large Scale Metasearch Engines. The major goal of his current work is (1) to study a new architecture for metasearch engines that is aimed at covering a much larger portion of the Web and, at the same time, retrieving more up-to-date and more useful documents than any existing search engines or metasearch engines; (2) more specifically, to develop enabling technologies that can be used to implement an effective metasearch engine with the capability of connecting to a very large subset of nonredundant (having minimal overlapping content) special purpose search engines and searchable databases on the Web. Dr. Wu is a member of the ACM. From 1999 to 2001, he was a senior software engineer with EBase Interactive, located at Binghamton, N.Y. He has served on program committees of the 2003 Web Intelligence Conference, 2002 WWW Conference and the 11th IEEE Conference on Tools with Artificial Intelligence.
The second project supported by the IT initiative is developing technologies for detecting source code piracy; it is led by Dr. Arun Lakhotia. Such technologies will be used by lawyers, juries, judges, and managers, in cases of software piracy and copyright disputes. Dr. Arun’s team developed a software prototype, “CRIGHT”. It lets judges and juries “see right” the evidence of software piracy. This system can automatically compare millions of lines of computer source code to search for similarities between programs. It compiles quantitative summaries of copying between the systems at various levels of details. In addition it also provides a visual summary of copying, by providing a bird’s eyeview code, with color encoding of lines. Statements that are copied are colored red, statements that are new are colored green, and statements that have been ignored from the analysis are colored yellow.

Arun’s team cooperates with Mr. Kevin Thompson, Evidence Management, Inc., New Orleans. A firm specialized in providing technology for litigation and in digitizing evidence to present in the courtroom. Evidence Management is credited for ‘wiring’ the Federal courtroom for the Tobacco Settlement case in New Orleans. His firm has also been retained by the United Nations to digitize evidence for the Rawanda war crimes. Mr Kirk Reasonover, an attorney with Lamothe & Hamilton, LLC is also cooperating with Arun’s group. CACS’s team includes Dr. Walenstein, Prabhat Singh, software engineer, Junwei Li, Yun Yang, and Nitin Jyoti graduate students.

Dr. Andrew Walenstein, a recent graduate of Simon Fraser University, was the first hire on the project. He chose to come to UL Lafayette over offers from other leading universities because of Thompson and Reasonover’s excitement about the project. Having just finished his Ph.D. dissertation on cognitive aspects of developing program understanding tools, he, too, was fascinated by the application of his research in a completely orthogonal area.

Dr. Walenstein received his PhD. degree in Computer Science from Simon Fraser University, and his MSc., and BSc. degrees from the University of Alberta. His research interests are in reverse engineering, software evolution, software comprehension and visualization, and human-computer interaction. He looks forward to soaking in Louisiana’s rich culture, tasting every possible Cajun and Creole dish (repeatedly, if necessary), and touring the entire southwest USA.
CACS Co-sponsors DCV 2002...

CACS co-sponsored (with the Center for Digital and Computational Video, CDCV, University of South Florida) the 3rd International Workshop on Digital and Computational Video, DCV2002, in Clearwater Beach, Florida, November 2002. The general chairs were Magdy Bayoumi, CACS, and Vijay K. Jain, CDCV, USF. Mohsen Shaaban and Mohamed Shaheen, CACS Ph.D. students, were in charge of publicity, publication, and registration. Cathy Pomier, CACS, was the workshop administrator. Dr. Guna Seetharaman, CACS, gave a plenary talk on “A 3d Video Stream Display Architecture”. The event was memorable in all aspects.
Sysadmin intro course offered

Patrick Landry, CACS Senior System Administrator, taught an Introduction to Unix System Administration course this semester, to a group of budding system administrators and people interested in maintaining their UNIX systems and accounts. The course was offered through the Continuing Education Department and covered several basic Unix system administration topics to enable people to use UNIX and UNIX-based systems more effectively, including booting up and shutting down, user account maintenance, NIS and LDAP for access control, networking, filesystems and disks, RAID for fault tolerance, PKE/SSH for secure remote login, email, and security and firewalls. “The response from the students was really enthusiastic. Many of them would like to know more about these practical, hands-on topics that do not fit well into the normal academic curriculum,” said Landry. A related course is planned for next fall.

Edwards outstanding graduate advisor

Dr. Bill Edwards was named Outstanding Graduate Advisor in the College of Sciences recently. This award goes to graduate advisors noted for their service to the university in their position.

Merwin Scholarship Awarded to CACS Student

The IEEE Computer Society recently awarded the 2002 Richard E. Merwin Student Scholarship to Mohamed A. Elgamel, a CACS Ph.D. student. The $3,000 scholarship is awarded in recognition of his leadership in the student chapter. Eligible students are graduate students, juniors, or seniors who are active chapter members in computer engineering or a related field. Elgamel is president of the IEEE student chapter here at UL Lafayette. To be considered for the scholarship, students must have at least a 2.5 GPA and be enrolled full time. The award recognizes involvement in chapter activities, academic achievement, recommendation by the chapter advisor, and extracurricular activities. Up to four scholarships of $3,000 each are awarded each year. For more information, visit http://computer.org/students/schlrshp.htm.

CMPS/CACS Alumni

We want to hear from you.

Have news you’d like to share with us?

Have comments or suggestions for future issues of L’Informatique?

Let us know! E-mail the editors at:
cathy@cacs.louisiana.edu

Visit us online at:
http://www.cacs.louisiana.edu
http://www.louisiana.edu/Academic/Sciences/CMPS/
The CACS Weekly Colloquium Series and Distinguished Lecture Series provide an opportunity for internationally renowned researchers from CACS and other universities, companies, and organizations from all over the world, to present their topics to students and other faculty. Coordinated by Dr. Rasiah Loganantharaj, the 2002 - 03 series featured a number of our new faculty and researchers from abroad:

Dr. Hongyi Wu, CACS, “iCAR, an Integrated Cellular and Ad hoc Relaying System”

Dr. Charles D. Cavanaugh, CACS, “Dynamic Optimization of Secure Reliable Distributed RealTime Systems”

Dr. Henry Chu, CACS, “Counting and Correlating Co-citations of Documents”

Dr. Dmitri D. Perkins, CACS, “Mobile Ad Hoc Networks: Routing, MAC, and Transport Issues”

Dr. Jacoby Carter, CACS, Ecologist at USGS National Wetlands Research Center, “The Use of Light Induced Fluorescence to Assess Submerged Aquatic Vegetation Health”

Dr. Peter Bollmann Sdorra, Technische University, Berlin Department of Computer Science, “Image Retrieval by Color”

Mr. Rozsypal Antonin, CACS, “Association Mining in TimeVarying Domains”

Dr. Lee Bairnsfather, Chairman of the Biometry Department LSU Health Sciences Center Shreveport, “Opportunities in Healthcare and Bioinformatics”

Dr. Zonghuan Wu, CACS, “Towards Building a Very Large Scale Metasearch Engine”

Dr. Magdy Bayoumi, CACS “Wired or Wireless: It is the Silicon”

Dr. Christoph W. Borst, “Virtual Environments and Haptic Displays”

Dr. Brent Seales, University of Kentucky and a graduate of our computer science department, “Digital Renaissance: Preservation, Restoration, Visualization”

Dr. Andre Skupin, Department of Geography, University of New Orleans, “A Different Kind or Cartography: Computation and Cognition in the Mapping of Non-Geographic Information”

This year’s Distinguished Lecture Series consisted of seven colleagues with diverse areas of research.
How to Store and Massive Data Archives

January 24th, 2003

Professor Jeff Vitter

All of the world is an abstract interpretation (of all of the world)

February 7th, 2003

Professor David Schmidt

Deception for Information Security

February 21st, 2003

Dr. Fred Cohen

Myths, Fads, and False Economies: How NOT to Get Secure Systems

March 14th, 2003

Professor Eugene Spafford

Future Directions in Data Mining

21 March 2003

Professor C. Lee Giles

Penn State

This newsletter is a publication of The Center for Advanced Computer Studies & Computer Science Department, University of Louisiana at Lafayette. We welcome your comments, ideas, and feedback. Send them to: cathy@cacs.louisiana.edu.

Editors: Magdy A. Bayoumi
Charles Cavanaugh
Cathy Pomier

Production: Jason Decou
The Computer Science Department hosted the 17th Annual Louisiana Computer Programming Classic (LCPC). Approximately 100 high school students from all over Louisiana participate in the event each year. It is considered one of the most established programming contests in the nation. The competition took place Friday, March 21, 2003, in the Student Union Ballroom. It was coordinated by Frank Ducrest, CMPS.

The competition featured two divisions: Advanced and Entry Level. Each school was allowed to register three teams. The competition itself lasted three hours, during which competing teams attempted to solve as many of the assigned problems as possible. A technical program for the sponsors and teachers took place in parallel.

**And the winners are...**

**Advanced**
- First: Lafayette High School
- Second: Baton Rouge Magnet High School
- Third: Ben Franklin High School

**Entry Level**
- First: Central Private School
- Second: Lafayette High School
- Third: Lafayette High School
This year’s LCPC 2003 competition attracted the following schools:

- Acadiana High School, Lafayette
- Baton Rouge Magnet High School, B.R.
- Ben Franklin High School, N.O.
- Catholic High School, B.R.
- Central Private School, Baker
- Destrehan High School, Destrehan
- Episcopal School of Acadiana, Cade
- Hahnville High School, Boutte
- Lafayette High School, Lafayette
- Louisiana School for Math, Science, and the Arts, Natchitoches
- Loyola College Preparatory, Shreveport
- McKinley Senior High School, B.R.
- St. Thomas More Catholic High School, Lafayette

Successful Accreditation

The Computer Science program went through another successful accreditation. Our department was one of the first departments in the nation to become accredited. The most recent accreditation was based on the recently developed EC2000 criteria of the Accreditation Board of Engineering and Technology (ABET). This accreditation visit was a showcase of the programs by traditions of excellence in teaching, curriculum development, student mentoring and advising, and commitment to students education and well-being.
Nona Etheredge Named Outstanding Undergraduate Advisor

Nona Etheredge, Instructor and CMPS Undergraduate Advisor, was named Outstanding Undergraduate Advisor, College of Sciences, recently. This award goes to advisors noted for their service to the university in their position.

CMPS Student Wins CRA Award

Stacy Crochet, computer science student, was selected for Honorable Mention in this year’s Computing Research Association Outstanding Undergraduate Award program. Crochet was one of a select group of undergraduate students of whom a number contributed to research projects and papers, made presentations, wrote software, or were involved in mentoring or volunteer activities.

Springfest ’03

The Computer Science department’s annual Springfest is a time for computer science students, faculty, and staff to enjoy picnicking and games. Here are some pictures from last year’s celebration.
A **CMPS** student, *Ryan Lecompte*, published a research & development paper in the April 2003 issue of *BEA WebLogic Developer’s Journal*.
CMPS Achievement Awards

This year’s Springfest marked the annual issuing of the Computer Science Department awards, of which five students were recipients.

Highest Academic Achievement
Stacy Crochet, 3.96, Senior
Matthew Price, 3.9, Junior
Duane Huval, 3.78, Sophomore
Ryan Phelan, Outstanding Senior
Francis Suire, Outstanding Service.

CMPS Undergraduate Scholarship Awards

Several exceptional Computer Science students received scholarships at Springfest, which were sponsored by individuals, companies, and the CMPS and CACS departments.

Michelle Ott, Shell Scholarship
Jared Chambliss and Sandi Ledet, Frank Piccione Scholarship
Christopher Doucet, Stephen D. Sanders Scholarship
Jamie Castille and Matthew Price, CMPS Departmental Scholarship
James Hess, CACS Scholarship
Magdy & Seham Bayoumi Scholarship
Student Video Gamers Alliance

UL Lafayette hosts the second chapter of the Student Video Gamers Association. It is open to anyone interested in video game development, including artists, business majors, computer scientists, and musicians. Founded during the Spring 2003 term, the chapter comprises over 20 members. Recent activities include entering in the Independent Games Festival (www.igf.com) and helping develop a new CMPS concentration in video game design and development. The chapter leadership consists of Joel Gonzales, president, Chris Best, vice president of product development, Jason Decou, vice president of educational advancement, Hanson “Reed” Bertrand, secretary, and Joshua Buller, public relations officer.

New ACM Officers

The UL Lafayette Association for Computing Machinery was the very first student chapter in the world, founded as an extension of the professional organization. Its members participate in regional programming competitions, talk to local high school students about pursuing a computer science degree, facilitate discussions on campus about current topics in technology, and much more. The ACM hosts the annual departmental Springfest, where faculty and students get together to share good music, great food, and friendly athletic competition. Through campus events such as LAN gaming, students from other organizations interact with ACM members. Periodically the club hosts special speakers from local businesses or areas of research to answer any questions the students may have. The ACM is run by the students for the students. The Alpha Chapter of the Association for Computing Machinery has new officers: president Michelle Ott, vice president Sandi Ledet, secretary Ryan Bourque, treasurer Adam Guichard, and publicity officer/webmasters Jared Chambliss and Matt Henderson. (http://ullacm.dyndns.org)
It was hot and spicy...

Our annual CACS/CMPS crawfish boil was hosted by Matt and Alexis Delcambre in their beautiful cabin on Vermilion Bay’s Cypremont Point. Matt is a CACS alumnus and former employee. It was a very relaxing and fun filled atmosphere orchestrated by our chef, Patrick Landry. Charles Rees, a CACS student, provided the music. Dr. Bogdan Oporowski, Loc Stewart’s husband, recorded the event through his camera. Our new faculty were Cajunized in style.