

Spring 2007 Newsletter



Computer Science @ Virginia Tech

Special points of interest:

- Department Head's Message
- CS Department's New Facility
- New Faculty
- Sponsored Programs
- New Research Center
- Of Student Interest

If you'd rather receive this publication via email, or if you have an interesting story to tell us and other VT alumni, please send an email to newsletter@cs.vt.edu

Looking Forward to the Future

Dear Friends:

This is the second time I'm composing this greeting to you. I was enthusiastic about the opportunity to contact you again with our re-vamped newsletter, full of news about people who made us proud and advanced our department.

Once the newsletter was "finalized," but before it could be mailed, the campus was overtaken by the senseless violence you have likely seen

reported by the national news media. Personally, I kept seeing these tragic events through my eyes as a parent whose son is a college sophomore.

In the aftermath of this tragedy, we received messages of support from many concerned alumni. You, our alumni, embody our history and legacy. Your connection and loyalty shone through clearly in these recent days.



A message by Dr. Dennis Kafura, Department Head

Our ability to get up and keep going with dignity despite the scars that we have acquired is the Hokie spirit that defines us and sets us apart for life.

CS@CRC: Department's New Facility

On Thursday, September 14, the CS Department held its Ribbon-Cutting ceremony, marking the official opening of its new facilities located at the Virginia Tech Corporate Research Center (CRC). The CRC has been recognized as the "Best Practice in Technology Transfer and Research Centers" in the Mid-Atlantic Region.



Spring 2007 Newsletter

Department of Computer Science

Virginia Polytechnic Institute and State University

Christina Daniilidi, M.Sc., Editor and Designer / Dennis Kafura, Department Head

New Faculty Join the CS Department



The Computer Science Department at Virginia Tech was proud to welcome six new faculty members in 2006. Drs. **Wu-Chun Feng** (left), **Dimitrios S. Nikolopoulos** (right), **Ali R. Butt** and **Eli Tilevich** specialize in re-searching and teaching Computer Systems and Net-working.



Dr. **Yang Cao** focuses in Computational Biology and Scientific Computing, and also collaborates with colleagues in the Department of Biology and in the Virginia Bioinformatics Institute.

Dr. **Yong Cao** specializes in Computer Graphics, Character Animation, Search-based Motion Synthesis and Machine Learning for Motion Synthesis.

Sponsored Projects - 2006



In 2006, members of our Department have received public recognition of their academic and scientific excellence.

- NSF has awarded a 3-year grant of over half a million dollars to Virginia Tech and to the UNC at Chapel Hill, to develop a Digital Library Curriculum. This effort is being led by Dr. **Edward Fox**.
- A highly competitive NSF Computer Systems Research grant of \$ 640,000 has been awarded to Drs. **Naren Ramakrishnan**, **Cal Ribbens** and **Srinidhi Varadarajan**.
- Dr. **Alexey Onufriev** has been awarded a \$1.1 million grant from the National Institutes of Health for his project concerning Biological Applications of Analytical Electrostatics.
- NSF Grant of \$400,000 from the CNS-Cyber Trust Program has been awarded to Drs. **Athman Bouguettaya** of CS and **Mohamed Eltoweissy** of Technical and Computer Engineering.
- A \$433,844 NSF Grant has been awarded to Drs. **Stephen Edwards** and **Manuel Pérez-Quiñones** of CS and Dr. **Carlos Evia** from the Department of English for "Web-CAT", an automated grading platform for production use and educational research.
- Dr. **Adrian Sandu** has been awarded a \$100,000 grant from the Houston Advanced research Center, a \$109,213 from NIGMS/NIH, and a \$186,143 grant from NSF.
- Dr. **Dimitrios S. Nikolopoulos** has been awarded a \$131,322 grant from the Department of Energy.
- Drs **Scott McCrickard** and **Woodrow Winchester** have been awarded a \$127,475 grant from NSF.
- Dr. **Francis Quek** has received a \$206,938 grant from NSF. Dr. **Francis Quek** in collaboration with Drs. **Deborah Tatar** and **Woodrow Winchester** have been awarded a \$103,839 grant from NSF.

"We are proud to welcome our new faculty members, and feel honored by their decision to collaborate with our Department"

Dennis Kafura,
CS Department
Head



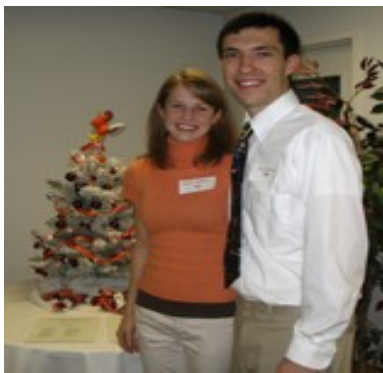
CHECS, the New Research Center

A new research center was launched in 2006 by Computer Science Faculty members at Virginia Tech, with initial support from the College of Engineering. The **Center for High-End Computer Systems (CHECS)** has as a primary focus the Computer Systems research motivated by extremely large-scale, high-performance computing systems and applica-



tions. According to the CHECS Director, Dr. **Srinidhi Varadarajan** (left), "We recognize that high-end resources must be powerful in a broad sense, and at the same time more usable than current HPC systems." Toward that end, the center will pursue a broad research agenda in areas such as processor and memory architectures, operating systems, run-time systems, communication subsystems, fault-tolerance, scheduling and load-balancing, power-aware systems and algorithms, numerical algorithms and programming models. CHECS is organized as a consortium of individual CS research labs, along with a number of affiliated computational science and engineering research groups from other departments.

Of student interest



Carol Willis and Ryan Adamson at the Commencement Reception.

- The CS Department honored **Fall 2006** undergraduates with a **Commencement Reception** on December 15. Dr. Dennis Kafura congratulated the students and their families on their accomplishments. Following the reception, students gathered at Cassell Coliseum for the **University Commencement**

Ceremony. **Thirty-two bachelor's degrees were awarded December 2006.**

- Virginia Tech is among the **Top-30 US institutions that awarded the most doctorate degrees in Computer Science in the academic year 2003-2004**, according to **NSF's WebCASPAR** service. A total of 13 Ph.Ds have been awarded during this period, with recipients assuming positions in academia, industry and research labs.
- **Kunmi Otitoju** was recognized as VT Graduate Student of the month of September 2006. Otitoju is a second-year CS graduate student, focusing on Human-Computer Interaction and working on her MS degree under the direction



of Prof. Steven Harrison.

- Stacy Branham and Laurian Vega, members of the Association for Women in Computing at Virginia Tech, attended the Grace Hopper Conference held in San Diego, California. The conference is dedicated to supporting and celebrating women in computing.



Other activities and news

- **A new graduate engineering program from Virginia Tech's College of Engineering is now offered in Egypt**, giving students from the Middle East and Northern Africa the opportunity to receive master's degrees and Ph.D.s in electrical engineering, computer engineering, and computer science. Nine students participated in the program's first semester, and the number of students enrolled is expected to double this spring. The Virginia Tech-Middle East and North Africa (VT-MENA) program is hosted by the Arab Academy for Science and Technology (AAST) at its [Alexandria, Egypt, campus](#) . It is also supported by the United States Agency for International Development (USAID) and endorsed by the United Nations Educational, Scientific and Cultural Organization (UNESCO).
- **Participation in Conferences** was strong in 2006 as well. Drs. **Kirk Cameron** and **Wu-Chun Feng** presented 3 technical papers at the **SuperComputing Conference 2006**, out of 56 accepted. Dr. **Doug Bowman** was appointed **General Chair of the IEEE Virtual Reality 2007 Conference** to be held in Charlotte, NC. Dr. **Layne Watson** attended the **NSF Design, Service and Manufacturing Grantees and Research Conference**, and presented 2 papers on that work. Dr. **Watson** was also appointed **General Chair for the 2007 High Performance Computing Symposium**. Drs. **Naren Ramakrishnan** and **T.M. Murali** along with Ph.D students **Deept Kumar** and **Satish Tadepalli** presented 4 papers at **AEM KDD 2006 Conference** in Philadelphia, PA. Dr. **Dimitrios S. Nikolopoulos** was appointed **Program Vice-Chair 36th International Conference in Parallel Processing**, to be held in Xian, China, 2007. Dr. **Francis Quek** also served as **General Co-Chair** of the **8th International Conference on Multimodal Interfaces (ICMI 2006)** held in Alberta, CA.

Department of Computer Science

Virginia Tech

2050 Torgersen Hall (0106)

Blacksburg, VA 24061