



# COMPUTER SCIENCE DEPARTMENT

Kean University (908) 737-3800

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## News

Dr. George Chang named Department Chair in July.

NSF awards 5-year grant to Department for undergraduate scholarships.

Dr. Jing-Chiou Liou joins Kean faculty Fall 2008.

**New Jersey accounts for 10% of all research and development in the United States.**

**70% of industry positions in NJ in the next 10 years will be careers requiring degrees such as Computer Science.**

## Department Update

The Department of Computer Science at Kean University continues to grow and thrive. In the past year, we have added faculty, received two highly competitive NSF awards, increased our undergraduate research opportunities, and continued to educate our students with such success that they are offered jobs with national employers well before they finish their campus classwork.

In addition, a significant

amount of new hardware and courses have been added to our undergraduate program. A new iMac classroom has been added, to complement our existing PC classrooms. Our students now learn on Linux, Windows, and MacOS systems, providing exposure and experience to more systems and environments. Our department server, the famed eve, was upgraded this summer for increased speed, memory, and storage. Additionally, the

Kean University supercomputer, available for student research, has been the focus of much faculty activity. Our course and curriculum offerings have also been revised to reflect new innovations in computer science and information technology.

Please consider joining us for your undergraduate and graduate degrees, if you are not already part of our team. We'd love to be part of your success.

## Dr. Jing-Chiou Liou joins department faculty

**Dr. Jing-Chiou Liou** joined the Department of Computer Science as a full-time faculty member this September.

Dr. Liou has extensive industrial and teaching experience, most recently with AT&T. With his arrival, the revitalization of our Information Technology curriculum continues. Dr. Liou received his undergraduate and masters degrees in electrical engineering and his Ph.D. is in Electrical and Computer

Engineering from NJIT. His expertise in software engineering and design was recognized by his selection as a member of the IASTED Technical Committee on Software Engineer. In addition, Dr. Liou has worked extensively in data and computer communications, including digital systems design. We are delighted that Dr. Liou will be working with our students in the coming years. Welcome!

### PROMOTIONS AND GRANT AWARDS

**Professor Emanouilidis** was promoted to full professor...**Dr. George Chang** is co-PI on an NSF grant of \$420,412 for the supercomputer at Kean University...**Dr. Michael Halper** is co-PI on two grants from the National Library of Medicine (NLM), part of the National Institutes of Health (NIH), totaling over \$2.15 million for research into medical ontologies.



"It is one of the fastest machines in the world with a primary purpose of undergraduate education and research." – Dr. David Joiner, co-PI with Dr.

George Chang on Kean's NSF MRI Supercomputer Grant.

#### Student Summer 2008 Internships:

**Chris Delgado** (CS '09)  
Verizon

**Nick Doell** (CS '09)  
Sun Microsystems

**Charles Oraschin** (CS '09)  
Verizon Wireless

#### Alumni News:

**Pedro Calixto** '05  
Senior Product Engineer  
Exigis  
Manhattan, NY

**Felipe Buenano** '08  
Web Developer  
Interactive Partners  
Manhattan, NY

**Ryan Stewart-Gardiner** '08  
Software Developer  
Verizon Wireless  
Warren, NJ

## NSF Grant for Computer Science Scholarships

The National Science Foundation awarded \$584,875 to **Dr. Morreale** and **Dr. Chang** of the Department to be used for undergraduate scholarships in Computer Science. The proposal "Applying Student Knowledge (ASK) for Success in Computer Science" will run for 5 years, with the first scholarships to be awarded in Fall 2009 to students majoring in Computer Science at Kean.

Additional faculty contributing to the proposal are **Dr. Jeff Cheng**, **Prof. Dennis Santomauro**, **Prof. Carolee Stewart-Gardiner**, **Prof. Lee Wittenberg**, and **Dr. Pablo Zafra**. This competitive award program will benefit our students for years to come.

Scholarship applications are being accepted on the Department web site.

#### Ronald E. McNair Scholars present research at Conference

Marvin Andujar (CS '11) and Gary Johnson (CS '11) will present the results of their summer research at the University of Delaware on Oct 3-4, 2008. With their faculty mentors, Marvin and Gary are investigating the impact of 3-D programming languages on Computer Science students.

## Faculty Activities

**Dr. Francine Abeles** gave an invited talk "The Evolution of Dodgson Condensation as an Experimental Method" at Rutgers DIMACS Research Center in February 2008.

**Dr. George Chang** is developing the Virtual Reality Lab at Kean University and associated 3D graphics and courseware, while overseeing the implementation of the NSF Supercomputer at Kean.

**Professor Jeff Cheng** is concluding his work with colleagues at NJIT on bioinformatics for publication.

**Dr. Cy Deavours** attended the IEEE/ACM Supercomputer 2008 (SC'08) Workshop on *Computational Physics and Parallel Environments* held at Kean University, June 2008.

**Professor Emanuel Emanouilidis** published a paper "Latin and Cross Latin Squares" in the *International Journal of Mathematical Education in Science and Technology*, 39(5), 2008.

**Dr. Michael Halper** has three papers scheduled for journal publication, in addition to his paper "Detecting role errors in the gene hierarchy of the NCI Thesaurus", published in *Cancer Informatics*, 6, 2008.

**Dr. Stanley Lipson** is teaching one of Kean's first classes in 'Alice', an innovative programming language for attracting new students to computing.

**Dr. Patricia Morreale** presented "Street CORNERS: An Architecture for Correlation of Real-time Networked Environmental Sensors" at the *2<sup>nd</sup> Annual IEEE Systems Conference*, Montreal, Quebec, Canada, April 2008.

**Dr. Jack Ryder** presented his paper "Using Weighted Directed Graphs for Test Path Selection" at *WorldComp '08* in Las Vegas, July 2008.

**Professor Dennis Santomauro** has facilitated a research exchange with Alcatel-Lucent in Murray Hill,

which includes guest speakers and research opportunities for Kean Undergraduates.

**Professor Carolee Stewart-Gardiner** presented a paper on Peer-Led Team Learning (PLTL) in New York this past summer and hosted the *4<sup>th</sup> Annual Early College Awareness Day* at Kean in May 2008.

**Dr. Kung-Kuen Tse** continues his work on combinatorial optimization and is preparing several programming teams from Kean for participation in the *2008 ACM Collegiate Programming Contest* in October.

**Professor Lee Wittenberg** presented a workshop on "Literate Programming: The Forgotten Agile Method" at *SIGCSE '08* in Portland, Oregon, March 2008, in addition to his ongoing role as System Administrator to the *Northeast Regional ACM Collegiate Programming Contest*.

<http://www.kean.edu/~compsci>