



# COMPUTER SCIENCE DEPARTMENT

Kean University (908) 737-3800

Fall 2009 Volume 2, Issue 1



## News

*Nicole Mingo-Horton* (Tech '09) was named *Valedictorian* of the Kean University Undergraduate Class of 2009. Ms. Mingo-Horton spoke to over 19,000 people, including the 2,300 graduates and their families, during the graduation ceremony held at PNC Arts Center, Holmdel, NJ in May 2009.

*Information Technology* major approved.

First *NSF Computer Science Scholars* selected for Fall 2009.

New *iMac* Lab in Hennings Hall Room 220 is available for multimedia projects, including virtual reality.

**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 and Information Technology.**

## New Course Offerings

The Department of Computer Science offers these new courses:

**High Performance Computing** (Fall 2009), taught by Dr. George Chang, uses Kean University's supercomputer. Students work directly on the supercomputer, and receive an understanding of high performance computing (HPC) which is a technology widely used in visualization, imaging, and scientific computation. [*CPS 5990, Juniors, Seniors*]

**Game Design and Development** (Spring 2011) has been approved by the department and will move forward for college and university approval. This course explores game strategy and development with animation and sequencing. [*Tech 3650*]

**Virtual Reality** (Fall 2009) grew out of a student-faculty research project and has resulted in an intensive course in augmented reality and advanced application design. [*Tech 3640*]

**New Media Programming I and II** (Fall 2009, Spring 2010) lets students work in Flash for animation and develop techniques in interactive web design using Actionscript programming. This class sequence provides a strong foundation in new media design and development, using advanced tools. [*Tech 3601, Tech 3602*]

Additional special topic courses Fall 2009 are **Knowledge Mining from Sensor Networks** (Morreale) and **Software Security** (Liou).

## Information Technology Major Approved

The new **Information Technology major** at Kean University has been approved. This major, in the Department of Computer Science and Technology, joins the other department majors: Computer Science and Computer Science with Information Systems emphasis.

"IT majors are highly in demand in the NY/NJ areas," said Dr. George Chang, department chair. "With this degree, Kean students can work in a wide

range of fields, from telecommunications to web design and development."

An **Information Technology minor** has also been approved by the department.

Please join us for your undergraduate degree, if you are not already part of our team. We'd love to be part of your success.

### PROMOTIONS AND OTHER LEADERSHIP

**Dr. George Chang** was promoted to full professor.

**Dr. Jing-Chiou Liou** was elected as a member of the *IASTED Technical Committee on Software Engineering*, 2009-2013.

**Dr. Michael Halper** is Guest Co-Editor of a special issue on Auditing of Terminologies for the *Journal of Biomedical Informatics*, 2009.

## Dr. Donald Chinn visits Computer Science



"Collaborative work is a cornerstone of computer science success."

– Dr. Donald Chinn, Associate Professor, University of Washington, Tacoma, WA.

### Summer 2009 Internships:

**Calvin Eric** (CS '10)  
Verizon Wireless  
Warren, NJ

**Avani Patel** (CS '10)  
Catholic Charities  
Perth Amboy, NJ

### Alumni News:

**Cory Bruno** (CS '09)  
Verizon Wireless  
Warren, NJ

**Nick Doell** (CS '09)  
Lockheed Martin  
Lanham, MD

**Jhon Espin** (CS '09)  
BillTrust  
Jamesburg, NJ

**Bryan Fitzwater** (CS '09)  
Apple Computer  
Cupertino, CA

**Charles Oraschin** (CS '09)  
Verizon Wireless  
Warren, NJ

**Nikil Rao** (CS '09)  
IBM  
Fishkill, NY

**Dr. Donald Chinn**, a faculty member at the University of Washington-Tacoma, visited the Department of Computer Science at Kean University on Tuesday, March 3, 2009. "Treisman Workshops for Computer Science" was the topic of Dr. Chinn's talk. Dr. Chinn has been teaching computer science using small group problem solving with good results in student comprehension and retention

in the major. His methods are well suited to Kean's students, and both faculty and students enjoyed hearing Dr. Chinn's tales of how his department's program had changed over the years, reflecting the changes in the student population. Dr. Chinn is serving as an outside consultant for **Dr. Patricia Morreale** and **Dr. George Chang's Project Ask**, which is funded by NSF.

### CS Student Recognized for Research

**Ryan Suleski** (CS '11) received Kean University's **Best Undergraduate Student Researcher** award at the Students Partnering with Faculty luncheon in March 2009. Ryan was recognized for his work on the **Street Corners** network, a wireless sensor network for data acquisition and analysis.

## Faculty Activities

**Dr. Francine Abeles** published "Dodgson Condensation: The Historical and Mathematical Development of an Experimental Method" in *Linear Algebra and Its Applications*, July 2008.

**Dr. George Chang** co-authored "A Framework of Generating Arc-annotated Sequences for Evaluating RNA Analysis Algorithms", presented at the *World Congress on Engineering and Computer Science (WCECS 2008)*, San Francisco, CA, October 2008.

**Professor Emanuel Emanouilidis** is extending his earlier work on Latin Squares, published in 2008.

**Dr. Michael Halper** co-authored "Expanding the Extent of a UMLS Semantic Type via Group Neighborhood Auditing" in the *Journal of the American Medical Informatics Association* Sept-Oct. 2009.

**Dr. Jing-Chiou Liou's** research "An Integrated Computer-Assisted Language Learning Environment for Different Background Students at an Oversea Weekend Chinese School" is

in *Proceedings of the 6<sup>th</sup> International Conference on Internet Chinese Education (ICICE '09)*, Taipei, Taiwan, June 2009.

**Dr. Stanley Lipson** addressed the *College Board AP Conference* on "Looking Back at the Future: Syntax-Free Programming" in San Antonio, TX, July 2009.

**Dr. Patricia Morreale** presented "Real-time Contextual Representation of Sensor Network Data for Environmental Trend Identification" at the *23<sup>rd</sup> IEEE International Conference on Advanced Information Networking and Applications* in Bradford, UK, May 2009.

**Dr. Jack Ryder** spoke on "Visualizing Cycles in Random Sequences" at the Annual Meeting of the *Mathematical Association of America* held in Portland, OR, August 2009.

**Professor Dennis Santomauro** developed a teacher's workshop, endorsed by the Computer Science Teachers Association (CSTA) on *Computer Science and Supercomputing*, presented at Kean University in June and October 2009.

**Professor Carolee Stewart-Gardiner's** paper "Using Peer Led Team Learning to Assist in Retention in Computer Science Classes" was selected for presentation at the *CCSC Eastern Regional Conference*, Villanova University, October 2009.

**Dr. Kung-Kuen Tse** continues his work on combinatorial problems and supervising student programming teams for the annual ACM regional contest.

**Professor Lee Wittenberg** was Technical Director for the *Greater New York Regional ACM Collegiate Programming Contest*, with 60 teams participating at St. Joseph's College, Patchogue, New York, October 2008.

**Ms. Sonya Porter-Robinson**, Computer Science Department Administrative Assistant, placed 98th in all events for Division II in the *Women's National Bowling Championship* at the United States Bowling Congress (USBC) in Reno, Nevada. Over 41,500 women competed in 8,330 teams in the March-July 2009 tournament.