

EB2, home of the NC State Department of Computer Science located on the award-winning Centennial Campus, is just one of over 50 construction projects initiated during the last seven years. The total investment in new facilities across campus exceeds \$3.1B.

## NC State University's 'Achieve!' Campaign Raises Almost \$1.4B

The Department of Computer Science benefits greatly from generous support of alumni and corporate partners.

Achieve! The Campaign for NC State wrapped up its seven-year fund-raising effort with a record-breaking achievement. With every donation tallied, Achieve! stands as the most successful capital campaign ever conducted by the university, and places NC State among an elite group of colleges and universities that have raised more than \$1B.

More than 66,000 individual, private and corporate donors contributed to NC State during the campaign, giving a total of \$1.37 billion. The donations already have begun to underwrite research and educational innovation on campus, as well as extension, engagement and economic development efforts across the state and around the world.

"It's not just the dollar amount raised or the square footage of space provided by the campaign that is so impressive," said

Chancellor James Oblinger. "It is what these things bring to our campus that make them remarkable for NC State."

The College of Engineering completed the campaign, raising over \$256M in new support; including 55 new scholarship endowments, 16 professorships and over 50 other programatic, faculty development, or unrestricted endowments.

The Department of Computer Science, a part of the College of Engineering, raised over \$50M during the campaign. Significant gifts received by the department during the campaign include seven new endowed scholarships, three new programmatic endowments, and the addition of one named professorship - the SAS Chair in Computer Science.

During the same period, NC State has benefited from over 50 construction projects, totaling \$3.1B, including EB2 - the home of Computer Science on the award-winning Centennial Campus.

NC State launched the campaign's quiet phase in July 2001, followed by a well-

publicized public phase in September 2005. The response from NC State supporters exceeded expectations from the start, enabling the university to reach its \$1 billion fund-raising goal 19 months ahead of schedule. ▲

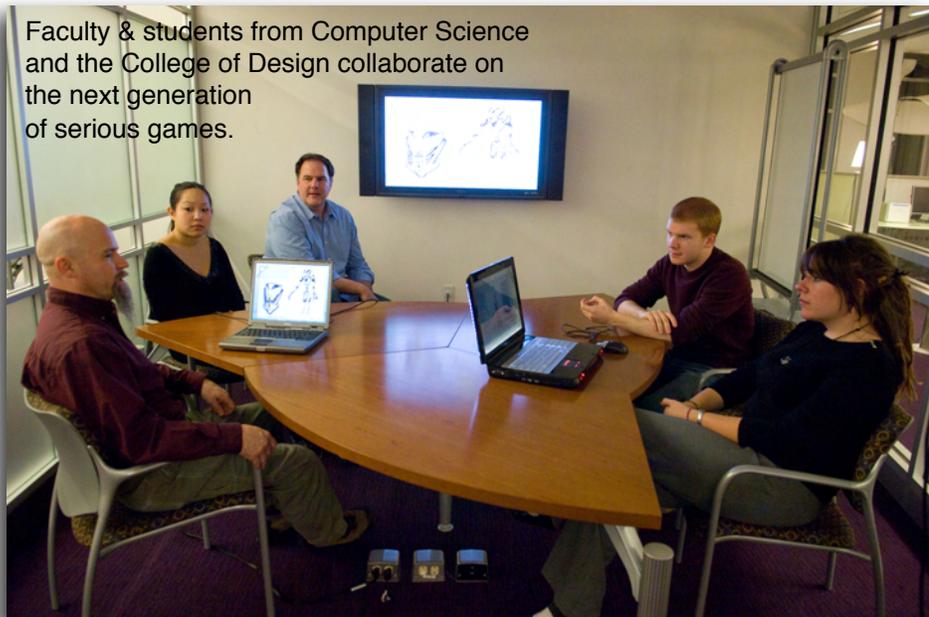
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# Computer Science

**NC STATE UNIVERSITY**

Faculty & students from Computer Science and the College of Design collaborate on the next generation of serious games.



## NC State Receives \$2.5M NSF Grant To Study How Students Learn Science Through Computer Games

Led by **Dr. James Lester**, associate professor of computer science, this multi-disciplinary research project seeks to determine which artificial intelligence technologies and conditions contribute most effectively to learning processes.

The project will weave concepts and ideas from North Carolina's fifth-grade science curriculum into an adventure-style video game called *Crystal Island*. As the students explore the island inside the game, they'll solve a mystery while being exposed to science

"We'll develop artificial intelligence technologies that create narrative-centered problem scenarios dynamically tailored to students' abilities," Lester says.



"The project will also model students' problem-solving progress, and provide customized explanations and feedback."

The project is a collaboration between NC State's College of Education and the Department of Computer Science in NC State's College of Engineering. ▲

## Game Development Concentration Launched

The Department of Computer Science at NC State University is pleased to announce the approval and launch of a new undergraduate concentration in game development, beginning fall 2008.

The game development concentration allows the student to develop an understanding of the scientific and technological principles associated with the design and development of computer and console games for both entertainment and serious applications.

This concentration will provide students with specialized courses in the technologies of game creation, application and social impact while also exposing them to the breadth and depth of the existing undergraduate computer science curriculum. Students in the concentration select from a focused list of computer science electives that cover the core technologies used by game developers. They also select a project course in computer science that focuses either on specialized 3D graphics or general game development methodologies.

Efforts to establish the concentration were led by **Dr. Michael Young**, associate professor of computer science. Young is co-director of the Digital Games Research Center, a multidisciplinary center that serves as a focal point for the games-related research and teaching activities that take place on the NC State campus. The center, which brings together faculty from the colleges of Engineering, Education, Design and Humanities and Social Sciences, contributes to the Triangle's reputation as one of the top game development centers on the East Coast. ▲

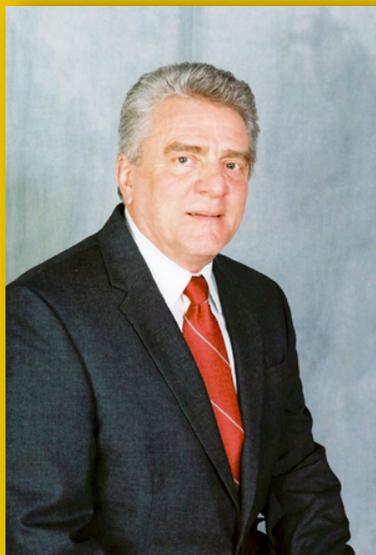


## Impact Bytes

Eight faculty were selected to receive 2008 IBM Faculty Awards totaling over \$250,000. Winners of the highly competitive awards include **Drs. Annie Antón, Kemafor Anyanwu, Vince Freeh, Helen Gu, Christopher Healey, Steffen Heber, Laurie Williams** and **Tao Xie**.

**Dr. George Rouskas** chaired IEEE BROADNETS 2007, one of the largest networking conferences ever held in the Research Triangle area.

**Dr. Eugene Spafford**, professor of computer science at Purdue University, has been named the first academic representative on the department's Strategic Advisory Board.



**Dr. Robert Fornaro** (pictured above), professor of computer science and director of the Senior Design Center, has been chosen as the recipient of the 2007-08 **Alumni Outstanding Teacher Award**, and named the department's ninth member of the **NC State Academy of Outstanding Teachers**.

**Intel** and **IBM** donated equipment valued at \$2.4M and \$1.4M respectively, to support the expansion of NC State's open source Virtual Computing Lab (VCL), a powerful next-generation computing environment with the potential to radically change the educational and research landscape.

A visualization of Weather Research Forecast model of Hurricane Katrina by **Steve Chall** and **Theresa-Marie Rhyme** of RENCi @ NC State won top honors at the U.S. Department of Energy's annual Scientific Discovery through Advanced Computing (SciDAC). ▲

## NC State Designated a National Center of Academic Excellence in Information Assurance Research

NC State University has been selected by the National Security Agency (NSA) and the Department of Homeland Security (DHS) as one of the first 23 National Centers of Academic Excellence in Information Assurance Research (CAE-R).

The CAE-R program recognizes schools that foster an Information Assurance (IA) research focus in curriculum and labs. It establishes a process that will present opportunities for IA research centers to drill deeper into solutions to securing the global information grid and also provide NSA, DHS and other federal agencies insight into the academic IA programs that can support advanced academic research and development. These agencies recognize the need for robust IA technology, policy, and practices in order to enable the nation to prevent or respond to a catastrophic event.



**Dr. Mladen Vouk**, head of the NC State Department of Computer Science, comments, "We are very proud of this designation as it is a strong statement of the quality of our faculty, our students, our research and our curriculum in this space."

NC State, one of only two universities from the state of North Carolina to receive this distinction, will hold this designation from 2008 to 2013.

CAE-R universities are eligible for scholarships and grants through both the Federal and Department of Defense Information Assurance Scholarship Programs. The designation can lead to many opportunities for advanced research in the field, and it is a testament to the outstanding IA research already being conducted at NC State, and in particular, within the Department of Computer Science..

Presentations were made to the designated centers in June during an awards ceremony at the annual Colloquium for Information Systems Security Education in Dallas, Texas. ▲

## Masters Program Ranked a "Best Buy"

NC State's Masters in Computer Science degree was recently ranked #3 in the nation as a "Best Buy" in the category of "Online Degrees in Computer Science" by GetEducated.com.

This "Best Buy" designation indicates that NC State's MS degree in computer science has been reviewed and judged to offer a high-quality distance education degree to a national audience at tuition rates well below the national average.

GetEducated.com ranked NC State #3 based on its contribution toward making quality education more accessible through innovative delivery methods coupled with fiscally responsive practices.

GetEducated.com launched its national "Best Buy" award program to spotlight and promote the "true affordable gems of higher education." ▲





## NC State Breaks New Ground in Virtual Research Collaboration

Thanks to a generous donation from Cisco Systems, NC State is among the first U.S. universities to deploy Cisco's TelePresence technology. This breakthrough technology for virtual meetings will allow researchers to forge new ground in higher education as they collaborate "in person" with colleagues around the world.

The TelePresence unit is located in EB2, home of the Department of Computer Science, on NC State's Centennial Campus. ▲

## Congressman Helps Launch Secure Open Systems Initiative

With the help of Congressman David Price (right), and the support of open source giant Red Hat, NC State recently celebrated the creation of the Secure Open Systems Initiative (SOSI), a research center that will make vital computer systems more secure.

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