School of Computing and Information Sciences
An Overview

Spring 2008

School of Computing and Information Sciences
College of Computing and Engineering
Florida International University
Top CS/IT Program in the State of Florida

- Largest undergraduate Computer Science (CS) and Information Technology (IT) degree program in Florida’s state university system (headcount), and 2\textsuperscript{nd} largest CS program for BS, MS and PhD combined.

- One of the best externally funded CS/IT research program in SUS (in terms of per faculty member annual funding).

- National leader in diversity with 15+\% of the total Hispanic CS Ph.D. student enrollment among the research universities in US.
Our Programs and Community

- **Degree Programs**
  - Computer Science Bachelors, Masters, and Ph.D. programs
  - Information Technology Bachelors (single and double major)

- 1,200 students

- 33 Faculty members

- 25 dedicated research and instructional labs

- 500+ servers, workstations & PCs; high speed networking
Snapshots of 2006-07 Accomplishments

- **Degree production**
  - 114 BS (in CS and IT), 33 MS, 6 Ph.D. (4 women, 1 Hispanic)

- **Peer reviewed research publications**
  - Total: 128, premier journal/conference papers: 34

- **External research funding**
  - $2.71 million, another record year, leading the State in terms of annual per faculty research funding
Enrollment Trending Over Five Years

- 25% increase in undergraduate CS/IT enrollment, despite a major nationwide decline.
- 106% increase in PhD. Enrollment.
R&D Focus

• DBMS, data mining, visualization, animation, multi-modal information retrieval, knowledge discovery
• Software engineering – modeling, architecture, design, verification and testing, component technology and middleware
• High Performance Computing and Networking, Large Scale Modeling
• Simulation.
• Adaptive, autonomic, pervasive and grid computing
• Mobile computing, multimedia systems, HCI
• Computer communication and networking
• Algorithms, programming languages
• Software security
• Informatics and bioinformatics
Examples of Major Collaborative Projects

- Business Continuity Information Network (BCIN) for Rapid Disaster Recovery
  - Rapidly gaining momentum in both technology development and partnerships
  - Partners: Miami-Dade EOC, Palm Beach EOC, IBM, Office Depot, FP&L, Miami Chamber of Commerce, FloridaFIRST, Wal-Mart, Beckman-Coulter, Quantum, etc.

- Florida Public Hurricane Insured Loss Model
  - Received certification from the State Insurance Commission
  - Major long term economic impact

- NSF Industry/University Collaborative Research Center
  - Center for Data and Search Informatics
  - In partnership with Indiana University
Major Projects (continued)

- The Latin American Grid (LA Grid) Consortium
  - 12 universities in Mexico, Spain, Argentina, Florida, IBM, Quantum, Barcelona Supercomputing Center
  - Broad impacts and momentum

- NSF Partnership for International Research and Education (PIRE)
  - Build on the LA Grid model
  - New and highly competitive NSF award of $2.3 million to support collaborative research and training of students for global economy at sites of international partners
  - Partners in Mexico, Argentina, Spain, China, India, Japan and France
Industry Advisory Board

- Harald Braun, **Board Chair**, Regional Head, Nokia Siemens Networks, Boca Raton, FL
- Dr. Hanafy Meleis, **Board Vice-Chair**, Owner, Trendium, Inc., Sunrise, FL
- Jaime Borras, Senior Fellow, Senior Vice President, 4G/WiMAX Advanced Technology, Motorola Inc., Plantation, FL
- Ruben Bravo, Latin America Public Sector Managing Director, Microsoft, Ft. Lauderdale, FL
- Michael Buchenhorner, P. A., Patent Law, Miami, FL
- Christopher Fleck, V.P., Platform Development, Citrix Systems, Inc., Ft. Lauderdale, FL
- Dr. Roy Gerber, CTO, Ultimate Software Group, Sunrise, FL
- Ralph MacNamara, Manager, Berenfeld, Spritzer, Shechter & Sheer, Sunrise, FL
- Pete Martinez, V.P. Chief Technology & Innovations Officer, The Quantum Group, Boca Raton, FL
- John Nygard III, CIO, Lennar Corp., Miami, FL
- Aristides "Arti" Pallin, CIO, Miami Children's Hospital, Miami, FL
- Rick Qualman Vice President, Sales Global Telecommunications and South Florida Senior Location Executive, IBM, Boca Raton, FL
- Dr. Marek Rusinkiewicz, V.P. Research, Telcordia Technologies, Morristown, NJ
- Daisy Santana, Program Director, Industry Enablement, SWG, IBM, Boca Raton, FL
- Michael Shen, MD, MS, FACC, FASNC, Head of the Section of Cardiac Imaging and a staff physician, Department of Cardiology, Cleveland Clinic Florida, Weston, FL
- Ravi M. Ugale, Managing Director, Crossbow Ventures, Boca Raton, FL
Selected Assistant and Fellowship Opportunities

**Ph.D. Students**
- SCIS Graduate Assistantships. 1 ~ 5 years.
- Project funded Research Assistantships. 1 ~ 5 years.
- FIU Graduate School’s Presidential Fellowships for new students. 1 ~ 2 years.
- FIU Graduate School’s Dissertation Year Fellowships for finishing students. 1 year.
- U.S. Department of Education GAANN fellowships, 1 ~ 3 years.
- NSF PIRE assistantships for international research experience. 1 semester.

**M.S. Students**
- SCIS Teaching Assistantships. 1 ~ 2 years.
- Project funded Research Assistantships. 1 ~ 2 years.
- NSF PIRE assistantships for international research experience. 1 semester.

**B.S. Students**
- NSF Research Experience for Undergraduate students. 10 weeks in summer.
- NSF PIRE assistantships for international research experience. 1 semester.
About Miami

- GEOGRAPHY: Miami-Dade County area: 1,955 square miles / 15+ miles of beaches

- CLIMATE: Subtropical annual average daily temperature: 76 degrees Fahrenheit / 23 degrees Celsius -- Year-round sunshine

- RECREATION: 800+ parks, including, Biscayne National Park and Everglades National Park. Award-winning tennis and golf are popular here, as well as water sports, such as parasailing, windsurfing, wave-running and jetskiing.
More about Miami

- **DEMOGRAPHICS:** Miami-Dade County population: 2.4 million+
  Ethnic breakdown: White 69.7%, Hispanic 57.3%, Black 20.3%

- **PROFESSIONAL TEAMS:** Florida Marlins Baseball  Miami Dolphins Football  Miami Heat Basketball

- Miami is the Diving Capital of the World, containing Miami over 50 diveable wreck sites—such as ships, oil platforms, army tanks and the Spirit of Miami Boeing 727 jet—sunken to provide artificial reefs for marine life.

- American Express Travel agents ranked Miami as #3 destination in U.S. for families (2006)

- Miami ranked #1 Best City for Doing Business in Latin America by *America Economia* magazine in 2002.