THE UNIVERSITY OF ALABAMA IN HUNTSVILLE

Huntsville is a city filled with imagination and wonder. It is best known for the cluster of high-tech industries built around NASA’s Marshall Space Flight Center, the U.S. Army’s Redstone Arsenal, and Cummings Research Park - the second largest research park in America. Huntsville is a highly educated city with highest density of Ph.D. holders and highest per capita income in the southeast United States. Unsurpassed natural beauty with lakes, rivers and mountains moderate climate, and reasonable cost of living make Huntsville a great place to live, learn and work. The CNN survey consistently ranks Huntsville in the top 10 most desirable cities to live in the United States.

The vision and dream of UAH grew from the drive and foresight of the men and women whose rockets carried man into space, to the moon and beyond. UAH offers more than 40 bachelor’s degree programs, 18 master’s degree options, and 12 Ph.D. programs through its colleges of science, engineering, liberal arts, business and nursing. The U.S. News & World Report ranks UAH in the top 7 percent of 2000 colleges in America. UAH is the only public university in Alabama ranked as “very competitive” in Barron’s Profiles of American Colleges, and is rated among “Top Colleges for Top Students” in Peterson’s Competitive Colleges. According to a recent NSF survey, UAH with more than $85,000,000 per year in research funding is ranked sixth in the nation based on NASA research funding.

The Computer Science Department offers B.S., M.S. and PhD degrees in computer science, and the M.S. degree in software engineering. The department has modern laboratories for teaching courses in areas like computer architecture, graphics and visualization, artificial intelligence, computer networks, and software engineering. Since 1989, the department is fully accredited by the Computer Accreditation Commission of ABET and is ranked among the top 20 departments in America based on federal research funding. The close working relationship with research scientists at NSSTC, ITSC, CSPAR and various research centers has been very beneficial to graduate students. The department supports 35-40 students as graduate teaching and research assistants. The high-tech companies located in Cummings Research Park, offer significant internship opportunities to students.
A few facts about UAH Computer Science Department

The overriding objective or mission of the Computer Science program is to prepare students to become contributors to the computer science profession, whether they find themselves in industrial, Government, research, or university environments. The educational objectives of the Computer Science Department, which are based on the department's commitment to excellence in teaching, research, and service, and overall development of students are consistent with the mission statement of the University.

Degrees offered:
- MS in Computer Science (Thesis/non-thesis options)
- MS in Software Engineering (Thesis/non-thesis options)
- MS in Information Assurance
- Ph.D. in Computer Science
- MS and Ph.D. in Modeling and Simulation

Areas of Concentration:
- Software Metrics, Software Design Methods
- Computer Graphics and Visualization
- Image Processing, Pattern recognition, Neural Networks
- Artificial Intelligence
- Computer Networks
- Modeling and Simulation
- Distributed Systems
- Multimedia Systems
- Database and Data Mining Systems
- Algorithms
- Data Informatics

Number of Students: 150 MS students and 45 Ph.D. students

Graduate Tuition: Non-resident graduate tuition per academic year is about $20,000, a bargain compared to what other comparable universities are charging.

Financial Support:
- 27 Graduate Teaching Assistants
- 17 Graduate Research Assistants

(In 2011, more than 80% of our students received financial support; number of international students without financial support is less than 5)
Employment: Most of our graduates find employment at or before graduation. All international students who graduated this year are employed in the United States.

Admission Requirements: Minimum GPA: 3.00/4.00 (First Class)
GRE: Verbal + Quantitative > 300
TOEFL: 80

Teaching: All courses are taught by full-time faculty members with Ph.D. degrees in their areas teaching. All faculty members are accomplished teachers and researchers.

Research: The department is successful in getting research funds from Army, NASA, NSF, NIH and industry. We are one of the leading universities in the country based on the amount of federal research dollars. UAH is ranked in the top ten in the country based on NASA funding and ranked 13 based on total federal funding. Annual research funding from various funding agencies has exceeded $85,000,000 this year.

Faculty: Excellent faculty with great teaching and research accomplishments.
Dr. Ranganath, Professor and Chair
Dr. Richards, Professor
Dr. Graves, Professor
Dr. Slater, Professor
Dr. Newman, Associate Professor
Dr. Delugach, Associate Professor
Dr. Etzkorn, Associate Professor
Dr. Li, Associate Professor
Dr. Rochowiak, Associate Professor
Dr. Cox, Assistant Professor
Dr. Aygun, Assistant Professor
Dr. Hart, Assistant Professor
Dr. Weisskopf, Assistant Professor
Dr. Zhang, Assistant Professor

Huntsville: This year CNN survey ranks Huntsville as the second most desirable city to live in USA; Highly educated town with highest density of Ph.D. and MS degree holders in the country; Highest per capita income in southeast US; home of the second largest research park in the world; Home to Marshall Space Flight Center and US Army R&D center; Very beautiful landscape with lakes, green mountains and rivers; Negligible crime and drug problems; Low cost of living; Large Indian community.
John D. Fix, Ph.D.

Dean, College of Science
University of Alabama in Huntsville

**Education**

- **Ph. D.**, Astrophysics, Indiana University, 1969
- **A.M.**, Astrophysics, Indiana University, 1967
- **B.S.**, Physics, Purdue University, 1963

**Experience**

- **Dean**, College of Science, and **Professor** of Physics, University of Alabama in Huntsville, Huntsville, AL, 1999-
  - **Associate Dean for Research and Development**, College of Liberal Arts, University of Iowa, Iowa City, IA 1992-1998
  - **Professor** of Astronomy, University of Iowa, 1980-1999
  - **Associate Professor of Astronomy**, University of Iowa, 1974-1980
  - **Assistant Professor of Astronomy**, University of Iowa, 1969-1974.

**Awards**

- M. L. Huit Faculty Achievement Award, 1991
- Council on Teaching Excellence in Teaching Award, 1991

**Professional**

- **Member**, International Astronomical Union

**Activities**

- **Member**, American Astronomical Society
- **Member**, Astronomical Society of the Pacific
- **Member**, Council of Colleges of Arts and Sciences
- **Harlow Shapley Lecturer** for American Astronomical Society
- **Scientific Consultant**, American College Testing
- **Trustee**, Universities Space Research Association
  - Chair, Compensation Committee
  - Vice Chair, Board of Trustees
Referee, National Science Foundation, NASA


Recent Publications


UAH Teaching

AST 100, Survey of Astronomy, Spring 2001

AST 106, Exploring the Cosmos, Fall 2002 to Fall 2011

Thesis Students

Number of M.S. theses supervised: 15

Number of Ph.D. dissertations supervised: 7

Other Activities


Member, Executive Steering Committee for PLUS – Program to Launch Undergraduate Success. Funded by “Closing the Divide For College-Going Minorities” grant from BellSouth Foundation. 6/02-6/05.

President, Faculty Senate, University of Iowa. 1991-92.
Caron St. John, PhD

Caron St. John joined UAHuntsville as the Dean of the College of Business Administration in spring 2010. Before coming to UAHuntsville, she was the Associate Dean of Graduate Programs, Research and Outreach in the College of Business & Behavioral Science at Clemson University, with responsibility for MBA programs, Executive Education programs, the Spiro Institute for Entrepreneurial Leadership, the Small Business Development Center, and the Renaissance Center.

In 2007, Dr. St. John was the winner of the Dr. Charles Townes Award for Individual Achievement in Innovation for contributions to innovation and entrepreneurship in the upstate of South Carolina and in January 2010 was recognized by Greenville Business Magazine as one of the 50 most influential people in Greenville, SC for 2009. She was also recognized by the Greenville Chamber of Commerce with a Special Chairman’s Award for Education in Business for 2009.

Dr. St. John has served as the PI or Co-PI on grants and contracts from organizations such as the National Science Foundation and U.S. Department of Commerce totaling over $2.0 million and has published research in top-tier management journals including the Academy of Management Review, Strategic Management Journal, Operations Management Journal, Organization Research Methods, Computers and Operations Research, and Production and Operations Management. Through her work with the Spiro Institute for Entrepreneurial Leadership at Clemson University, she developed several programs to involve students in the new business development and technology commercialization efforts of inventors, entrepreneurs, and established firms in the region. She teaches courses that address the management, competitive, and technology strategies of new and established firms.

Dr. St. John serves on the board of BizTech in Huntsville, Al. She was a founding board member of the Upstate Coalition for Entrepreneurial Development (now NEXT), a founding board member of InnoVenture, and served on the Clemson University Research Foundation board—all in South Carolina.

She received her undergraduate degree in chemistry from Georgia Institute of Technology (Ga. Tech) and a MBA and PhD in business administration from Georgia State University’s Robinson College of Business Administration. Before pursuing an academic career, she was involved in new product and new business development with Celanese Corporation in Charlotte, NC.
Heggere S. Ranganath

Heggere S. Ranganath                256-883-2859 (Home)
10033 Shadow Wood Drive               256-824-6088 (Work)
Huntsville, AL 35803                ranganat@cs.uah.edu


Fields of Interest: Pattern Recognition, Image Processing, and Neural Networks.

Current Positions: 2002 – Present, Professor and Chair, Computer Science, The University of Alabama in Huntsville, Huntsville, Alabama.

Contracts and Grants: Has received more than $4,000,000 from various funding agencies in support of his research projects.

Ph.D. Dissertations Supervised: Has advised ten Ph.D. students to completion and is currently advising one student. Research topics are in the areas of image processing, data mining, neural networks and pattern recognition.

Publications: Has published over 75 technical papers/articles including 8 IEEE transaction papers. Three of his journal articles in the area of Pulse Coupled Neural Networks (PCNN) are recognized as highly cited papers.

Courses Taught: Has taught graduate and undergraduate courses in the following areas.


Technical Reviewer:
IEEE Transaction on Software Engineering
IEEE Transaction on Computers
IEEE Transactions on Pattern Analysis and Machine Intelligence
Image and Vision Computing Journal
SPIE Optical Engineering

Industry Affiliation: During the past 15 years has worked with the following companies as technical, business and strategic advisor; Since 2000, has established 3 US subsidiaries in India. Adtran, Huntsville, AL; SY Technology, Huntsville, AL; Mem Optics, Huntsville, AL; Sunquest Information Systems, Tucson, AZ; Thoughtworks, Chicago, IL; Morgan research Corporation, Huntsville, AL; Teledyne Brown Engineering, Huntsville, AL; Polaris, Huntsville, AL.
## Masters Degrees

<table>
<thead>
<tr>
<th>College</th>
<th>Department</th>
<th>Degrees Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>College of Business Administration</td>
<td>Business Administration</td>
<td>Master of Accountancy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Master of Business Administration</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Master of Science in Information Systems</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Master of Science in Information Assurance and Security</td>
</tr>
<tr>
<td>College of Engineering</td>
<td>Chemical &amp; Materials Engineering</td>
<td>Master of Science in Engineering (Chemical Engineering)</td>
</tr>
<tr>
<td></td>
<td>Civil &amp; Environmental Engineering</td>
<td>Master of Science in Engineering (Civil Engineering)</td>
</tr>
<tr>
<td></td>
<td>Electrical &amp; Computer Engineering</td>
<td>Master of Science in Engineering (Computer Engineering)</td>
</tr>
<tr>
<td></td>
<td>Master of Science in Engineering (Electrical Engineering)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Master of Science in Software Engineering</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Master of Science in Information Assurance and Security</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Industrial &amp; Systems Engineering and Engineering Management</td>
<td>Master of Science in Engineering (Industrial &amp; Systems Engineering)</td>
</tr>
<tr>
<td></td>
<td>Mechanical &amp; Aerospace Engineering</td>
<td>Master of Science in Aerospace Systems Engineering</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Master of Science in Engineering (Mechanical Engineering)</td>
</tr>
<tr>
<td>College of Liberal Arts</td>
<td>English</td>
<td>Master of Arts</td>
</tr>
<tr>
<td></td>
<td>History</td>
<td>Master of Arts</td>
</tr>
<tr>
<td></td>
<td>Political Science (Public Affairs Program)</td>
<td>Master of Arts</td>
</tr>
<tr>
<td></td>
<td>Psychology</td>
<td>Master of Arts</td>
</tr>
<tr>
<td>College of Nursing</td>
<td>Nursing</td>
<td>Master of Science in Nursing</td>
</tr>
<tr>
<td>--------------------</td>
<td>---------</td>
<td>----------------------------</td>
</tr>
<tr>
<td>College of Engineering</td>
<td>Civil &amp; Environmental Engineering</td>
<td>Doctor of Philosophy (Civil Engineering)</td>
</tr>
<tr>
<td></td>
<td>Electrical &amp; Computer Engineering</td>
<td>Doctor of Philosophy (Computer Engineering)</td>
</tr>
<tr>
<td></td>
<td>Industrial &amp; Systems Engineering and Engineering Management</td>
<td>Doctor of Philosophy (Electrical Engineering)</td>
</tr>
<tr>
<td></td>
<td>Mechanical &amp; Aerospace Engineering</td>
<td>Doctor of Philosophy (Industrial &amp; Systems Engineering)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Doctor of Philosophy (Mechanical Engineering)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Doctor of Philosophy (Aerospace Systems Engineering)</td>
</tr>
<tr>
<td>College of Nursing</td>
<td>Civil &amp; Environmental Engineering</td>
<td>Doctor of Philosophy (Civil Engineering)</td>
</tr>
<tr>
<td></td>
<td>Electrical &amp; Computer Engineering</td>
<td>Doctor of Philosophy (Computer Engineering)</td>
</tr>
<tr>
<td></td>
<td>Industrial &amp; Systems Engineering and Engineering Management</td>
<td>Doctor of Philosophy (Electrical Engineering)</td>
</tr>
<tr>
<td></td>
<td>Mechanical &amp; Aerospace Engineering</td>
<td>Doctor of Philosophy (Industrial &amp; Systems Engineering)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Doctor of Philosophy (Mechanical Engineering)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Doctor of Philosophy (Aerospace Systems Engineering)</td>
</tr>
<tr>
<td>College of Science</td>
<td>Doctor of Philosophy</td>
<td></td>
</tr>
<tr>
<td>--------------------------------------------</td>
<td>-------------------------------</td>
<td></td>
</tr>
<tr>
<td>Atmospheric Science</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Computer Science</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematical Sciences</td>
<td>Doctor of Philosophy (Applied</td>
<td></td>
</tr>
<tr>
<td>Physics</td>
<td>Mathematics)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Doctor of Philosophy</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interdisciplinary Programs</td>
<td>Doctor of Philosophy</td>
<td></td>
</tr>
<tr>
<td>Biotechnology Science &amp; Engineering</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Materials Science</td>
<td>Doctor of Philosophy</td>
<td></td>
</tr>
<tr>
<td>Optical Science &amp; Engineering</td>
<td>Doctor of Philosophy</td>
<td></td>
</tr>
<tr>
<td>Modeling and Simulation</td>
<td>Doctor of Philosophy</td>
<td></td>
</tr>
<tr>
<td>College of Nursing</td>
<td>Doctor of Nursing Practice</td>
<td></td>
</tr>
<tr>
<td>Nursing</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>